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(Field Operations Division)

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70 वां अंक
70th Issue

प्रमुख फसलों
पर
फसल प्राक्कलन सर्वेक्षण
के

समेकित परिणाम
**Consolidated Results
Of
Crop Estimation Survey
On
Principal Crops**

2017-18

PREFACE

In India, estimates of yield rates of principal food and non-food crops are obtained on the basis of crop cutting experiments conducted in majority of States/UTs under the National Programme of Crop Estimation Surveys (CES). At present, the production of food grains is estimated on the basis of yield rates obtained from the crop cutting experiments conducted on scientific basis spread over 29 States/UTs.

2. Field Operations Division (FOD) of the National Sample Survey Office (NSSO) has been providing technical guidance to States/UTs for organizing and conducting CES for estimating yield rates of principal crops. In the purview of its mandate of technical oversight, NSSO (FOD) also ensures adoption of uniform standard technique, methodology and procedures by different States/UTs. In addition, NSSO in collaboration with the States/UTs implements sample check programmes on Area Enumeration, Area Aggregation and conduct of Crop Cutting Experiments under the Scheme of Improvement of Crop Statistics (ICS). While executing the programme of sample checks on Crop Cutting Experiments, the operational aspects of the conduct of crop cutting experiments right from selection of sample villages, training of field staff and supervision of field work are duly taken into consideration. In the process, certain vital micro-level details relating to conduct of crop cutting experiments for estimation of crop yield are also captured.
3. The analysed results of CES are consolidated and brought out by NSSO (FOD) in this annual publication titled "**Consolidated Results of Crop Estimation Survey on Principal Crops**". The present publication is the **70th** issue of the series. The report purposes to review briefly the multifaceted aspects such as scope, coverage, survey design and sample size etc. of the survey in various States/UTs and focuses attention on the results of the surveys in setting out the estimates of crop yields and associated standard errors during the year 2017-18.
4. **16,95,660** crop cutting experiments covering 59 food and 17 non-food crops were planned in different States/UTs during 2017-18 under CES. The analysis made and conclusions drawn in the report are primarily based on the data and information furnished by the SASAs of the concerned States/UTs. It is, however, pertinent to mention here that the information pertaining to States of Haryana, Jharkhand, Madhya Pradesh and West Bengal could not be included for want of complete information on CES from the respective State Governments for the year under Report. The support and co-operation received from State Agriculture Statistics Authorities (SASA), the Chairpersons and members of High Level Coordination Committee (HLCC) of various States in the presentation of the report is gratefully acknowledged.
5. Suggestions for further improvement in the content and presentation of the Report are welcome.



(Dr. Bivas Chaudhuri)
Addl. Director General

March, 2023

प्रस्तावना

भारत में प्रमुख खाद्यान्जन तथा गैर-खाद्यान्जन फसलों पर उपज दरों का आंकलन “फसल प्राक्कलन सर्वेक्षण” (फ.प्रा.स.) नामक राष्ट्रीय कार्यक्रम के अन्तर्गत अधिकांश राज्यों/संघ-राज्यों में फसल कटाई प्रयोगों के संचालन के आधार पर किया जाता है। वर्तमान में खाद्यान्जनों के कुल उत्पादन का अनुमान 29 राज्यों/संघ-राज्यों में वैज्ञानिक आधार पर संचालित फसल कटाई प्रयोगों से प्राप्त उपज दरों के आधार पर किया जाता है।

2. राष्ट्रीय प्रतिदर्श सर्वेक्षण कार्यालय (रा.प्र.स.का.) का क्षेत्र संकार्य प्रभाग (क्षे.सं.प्र.) प्रमुख फसलों की उपज दरों के आंकलन हेतु सर्वेक्षणों (फ.प्रा.स.) के आयोजन तथा संचालन में राज्यों/संघ-राज्यों को तकनीकी मार्गदर्शन प्रदान करता है। अपने तकनीकी निगहबानी के अधिमत के अंतर्गत रा.प्र.स.का. (क्षे.सं.प्र.) यह सुनिश्चित करने का विशेष ध्यान रखता है कि विभिन्न राज्यों/संघ-राज्यों द्वारा एक जैसी मानक तकनीक, कार्यविधि एवं प्रक्रिया अपनायी जाए। इसके अतिरिक्त (रा.प्र.स.का.), राज्यों/संघ-राज्यों के सहयोग से फसल सांख्यिकी सुधार (फ.सां.सु.) योजना के अन्तर्गत क्षेत्रफल परिगणना, क्षेत्रफल समुच्चयन एवं फसल कटाई प्रयोगों के प्रतिदर्श जांच कार्यक्रम को भी कार्यान्वित करता है। यह कार्यालय फसल कटाई प्रयोगों पर प्रतिदर्श जांच के कार्यक्रम का कार्यान्वयन करते समय, प्रतिदर्श ग्रामों के चयन, क्षेत्र कर्मचारियों के प्रशिक्षण तथा क्षेत्र कार्य के पर्यवेक्षण आदि में भी सहयोग देता है। इस प्रक्रिया में फसल उपज आंकलन हेतु फसल कटाई प्रयोग के संचालन सम्बन्धी कुछ महत्वपूर्ण सूक्ष्म स्तरीय जानकारी एकत्र करता है।

3. इन विश्लेषित फसल प्राक्कलन सर्वेक्षण के समेकित निष्कर्षों को रा.प्र.स.का. (क्षे.सं.प्र.) द्वारा “प्रमुख फसलों पर फसल प्राक्कलन सर्वेक्षण के समेकित परिणाम” नामक शीर्षक के अन्तर्गत इस वार्षिक प्रकाशन के रूप में निकाला जाता है। वर्तमान प्रकाशन इस श्रंखला 70 वां अंक है। प्रतिवेदन का उद्देश्य विभिन्न राज्यों/संघ राज्यों में सर्वेक्षण के बहुमुखी पक्षों/पहलुओं जैसे कार्य-क्षेत्र, विस्तारण, सर्वेक्षण-अभिकल्प तथा प्रतिदर्श आकार इत्यादि की संक्षिप्त समीक्षा करना तथा वर्ष 2017-18 के दौरान मानक त्रुटि के साथ फसल उपज दर आंकित कर सर्वेक्षण के परिणामों पर ध्यान केन्द्रित कराना है।

4. वर्ष 2017-18 के दौरान फ.प्रा.स. के अंतर्गत विभिन्न राज्यों तथा संघ-राज्यों में 59 खाद्यान्जन तथा 17 गैर-खाद्यान्जन फसलों को शामिल करते हुए 16,95,660 फसल कटाई प्रयोगों को नियोजित किया गया है। इस प्रतिवेदन में किये गये विश्लेषण तथा प्राप्त किए गये निष्कर्ष मुख्य रूप से सम्बन्धित राज्यों/संघ-राज्यों के राज्य कृषि सांख्यिकी प्राधिकारों द्वारा प्रदत्त आंकड़ों तथा जानकारी पर आधारित हैं। यहां यह उल्लेख करना प्रासंगिक है कि हरियाणा, झारखण्ड, मध्य प्रदेश एवं पश्चिम बंगाल राज्य के राज्य प्राधिकारों द्वारा फसल प्राक्कलन सर्वेक्षण से संबन्धित पूर्ण सूचना उपलब्ध ना करवाए जाने के फलस्वरूप संबन्धित आंकड़े प्रस्तुत प्रतिवेदन में शामिल नहीं किए जा सके हैं। इस प्रतिवेदन के प्रस्तुतीकरण में विभिन्न राज्यों के राज्य कृषि सांख्यिकी प्राधिकारों एवं उच्च स्तरीय समन्वय समिति के अध्यक्षों एवं सदस्यों द्वारा दिये गये समर्थन एवं सहयोग के लिए आभार व्यक्त किया जाता है।

5. प्रतिवेदन की विषय वस्तु एवं प्रस्तुतीकरण में सुधार हेतु सुझावों का स्वागत है।

मार्च, 2023

(डॉ विभास चौधुरी)

अपर महानिदेशक



प्रकाशन से जुड़े अधिकारीगण

1.	श्रीमती नितिका गुप्ता	उप महानिदेशक
2.	श्री जी. रामचन्द्र राव	उप निदेशक
3.	श्री रणविजय उपाध्याय	वरिष्ठ सांख्यिकीय अधिकारी
4.	श्री पंकज कुमार चोटिया	कनिष्ठ सांख्यिकीय अधिकारी
5.	श्री रजनीश कुमार सिंह	कनिष्ठ सांख्यिकीय अधिकारी

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A. Agricultural Statistics Schemes & NSSO

1. National Sample Survey office(NSSO)

The Directorate of National Sample Survey (NSS), established in the year 1950, was reorganized into the present NSSO under the Government of India's Resolution of 5th March, 1970. The organization now consists of four functional Divisions with a Director General (DG) at the apex level. Each of the Divisions viz. (i) Survey Design and Research Division, (ii) Data Quality Assurance Division (DQAD) (iii) Survey Coordination Division and (iv) Field Operations Division is headed by an Additional Director General. The Field Operations Division (FOD) undertakes the field work relating to Socio - Economic Surveys, Industrial Surveys, Surveys for collection of retail prices in urban and rural areas, Urban Frame Survey for updation of area frame in urban areas for use in Socio-Economic Surveys & Methodological Surveys/Studies. Agriculture Statistics Headquarters of Field Operation Division is engaged with Agricultural Surveys under the scheme for Improvement of Crop Statistics (ICS).

2. Timely Reporting Scheme (TRS)

The Ministry of Agriculture initiated TRS in 1968-69 in land record states in order to reduce the time lag between completion of sowing and the availability of estimates of area sown and similarly between the completion of harvesting and availability of estimates of production in respect of important crops.

3. Establishment of an Agency for Reporting Agricultural Statistics (EARAS)

The Ministry of Agriculture sponsored a scheme in 1975-76 for Establishment of an Agency for Reporting Agricultural Statistics (EARAS) in three permanently settled States of Kerala, Odisha & West Bengal and later extended it to Arunachal Pradesh, Nagaland, Sikkim and Tripura.

4. General Crop Estimation Surveys (GCES)

Crop Estimation Surveys (CES) are conducted by States and Union Territories for obtaining sufficiently precise estimates of average yield of principal food and non-food crops using the objective technique of Crop Cutting Experiments (CCE) by applying scientific sampling method.

5. Improvement of Crop Statistics (ICS)

The scheme of ICS which had a modest beginning in the year 1973-74 reached to the optimum coverage in subsequent years. The scheme is closely related to the schemes of TRS, EARAS and GCES and was initiated with the objective of pointing out deficiencies in the system of collection of area & yield statistics through the joint efforts of the NSSO (FOD) & State Agricultural Statistics Authority (SASA) and to suggest remedial measures. NSSO (FOD) is also entrusted with the responsibility of providing technical guidance and assistance to the states in developing suitable survey techniques for obtaining timely and reliable estimates of crop area & yield and imparting training to State Government field personnel. The scheme is operational in 21 states and 1 U.T at present covering about 44 crops.

B. Concepts & Definitions

1(a). Food crops

The food crops cover Cereals, Pulses & Beans, Small Millets, Condiments & Spices, Fruits & Vegetables and Sugar (Sugarcane & Cocoa).

1(b). Non-Food crops

The non-food crops include Oil-seeds, Fibres and Drugs & Narcotics.

2(a). Temporarily settled States

States and Union Territories which have been cadastrally surveyed and where area & land use statistics form a part of the land records maintained by the revenue agency are referred to as “Temporarily Settled States”. This system is followed in 19 States namely, Andhra Pradesh, Assam (excluding hill districts), Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand and Uttar Pradesh, and the five Union Territories of Chandigarh, Dadra & Nagar Haveli, Daman & Diu, Delhi and Puducherry, covering about 86% of area.

2(b). Permanently settled States

Kerala, Odisha and West Bengal are categorised as “Permanently Settled States”, as there is no land revenue agency at the village level and crop area & land use statistics are collected through a scheme of sample surveys. These States cover about 9% of area.

2(c). Other States

Parts of Assam (hill districts), Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura and the two Union Territories of Andaman & Nicobar Islands and Lakshadweep, for which only “conventional” estimates are available, cover about 5% of area.

3. Seasons

Agricultural Year can be broadly divided into the following three major seasons based on the periods of sowing and harvesting:

Kharif	-	July to December
Rabi	-	January to March
Summer (or Zaid Rabi)	-	April to June

4. Reference period

The reference period for a survey is Agricultural Year (July to June) e.g. year 2017-18 is July 2017 to June 2018.

5. Crop mixtures

Two or more crops of the same season grown in a patch with the constituent crops being sown intermixed or in different rows, will constitute a crop mixture.

6. Geographical Area

India has an area of 32,87,263 sq. km. It is the seventh largest country of the world after Russia, Canada, China, the U.S.A., Brazil and Australia. India accounts for about 2.4 per cent of the total surface area of the world.

7. Nine fold classification of Area

a. Forests

Area not available for cultivation

b. Area under non-agricultural uses

c. Barren and unculturable land whether in isolated blocks or within cultivated holding

Other uncultivated land excluding Current fallow

d. Permanent pastures and other grazing lands

e. Miscellaneous tree crops and groves not included in the net area sown

f. Culturable waste

Fallow land

g. Fallow land other than current fallow

h. Current fallow: This represents cropped area which is kept fallow during the current year.

i. Net area sown: This represents the total area sown with crops and orchards. Area sown more than once in the same year is counted only once.

8. Gross Cropped Area

This represents the total area sown once and/or more than once in a particular year, i.e. the area is counted as many times as there are sowings in a year. This total area is also known as total cropped area or total area sown.

9. Area Sown more than once

This represents the areas on which crops are cultivated more than once during the agricultural year. This is obtained by deducting Net Area Sown from Gross Cropped Area.

10. Irrigated Area

The area is assumed to be irrigated for cultivation through sources such as canals (Govt. & Private), tanks, tube-wells, other wells and other sources.

11. Cropping Intensity

Cropping intensity refers to raising of a number of crops from the same field during one agricultural year; it can be expressed as

$$\text{Cropping Intensity} = (\text{Gross Cropped Area} / \text{Net Sown Area}) \times 100$$

12. Recovery ratio

The first weight of the produce taken out from the plants i.e. cobs in case of Jowar, Bajra, Maize, weight of grains in case of Paddy, Wheat, Barley, Gram etc., the ratio between the cobs to grain (wet), Paddy to rice (after taking away husk) are known as recovery ratio.

- i) **Driage ratio:** The ratio of weight between the wet grains or produce to dried and marketable produce is known as Driage ratio.
- ii) **Ginning ratio:** The weight of cotton to lint Cotton without seeds (i.e. cotton minus seeds) is known as ginning ratio. This ratio is obtained from ginning factories.
- iii) **Net weight:** In Agricultural Statistics, the net weight will always be more than gross weight. While reporting the weight of crop (produce) when sown in mixture, the percentage of the experimental crop sown in that mixture is also given. In this case, one has to work out the produce had it been sown pure.

13. Moisture meter

Moisture meter is an instrument to measure the moisture content in the grains from which the driage ratio can be calculated.

14. Improved Agricultural Practices

Agricultural practices include irrigation, crop rotation, application of fertilizers & pesticides, and the domestication of livestock. Improved agricultural practices could increase production, which can allow the population to feed itself without imports, or it might allow excess production so that the surplus can be sold to have increased buying power for other goods and services. The improved practices can reduce the cost of fertilizer and use of fuel. Also, some practices preserve the land environmentally, such as reducing erosion, etc.

15. Conventional Method of Yield Estimation :-

(a) Annawari system

Under ‘traditional method’, the yield per hectare is obtained either in terms of a direct estimate in quintals per hectare by eye-appraisal or as the product of ‘normal yield’ and the ‘condition factor’.

(b) Normal Yield

The normal yield is somewhat vaguely defined as the yield which is typical of the area. It is considered to be the yield on the average soil in a year of average character. The normal yield is the yield for which past experiences have shown to be most occurring crop yield. This is the typical crop yield of the local area, which a cultivator has a right to expect and with which he is content, while if he gets more, he has reason to rejoice and if he gets less he has reason to complain. Normal yields have been fixed usually for each district empirically on the basis of past experience.

(c) Condition factor

The condition factor is an estimate of the crop yield in a given year in relation to normal yield and is usually fixed in terms of annas, with a specified number of annas representing normal yield.

(d) Calculation of yield

The lower officers of Revenue and Agriculture departments make a guess of the condition factor of the crop in their jurisdiction on the basis of their impression through personal observations and enquiries with local cultivators and pass on their estimates to their superiors, who may modify those in the light of their experience.

16. Statistical Methods of Yield Estimation:-

General Crop Estimation Surveys (GCES)

GCES consists of performing a specified number of crop cutting experiments in randomly selected fields. Crop cutting experiment conducted under well designed estimation survey is an effective technique for estimating the average yield by selecting the field, randomly locating a plot of a specified size, harvesting, threshing, weighing and recording the weight of the produce from the plot. The sampling design of GCES is that of stratified multistage random sampling, in which Taluks/CD Blocks/Anchals are taken as strata, villages within the stratum as FSUs, and plots of specified size within the field (survey numbers/sub-survey numbers) as ultimate units of sampling. In the land record states, villages selected under TRS in a stratum for the current year forms the sampling frame of FSUs for GCES.

17. Conversion factor

Converting the yield from Grams per plot to Kg. per hectare

Weight of produce in Gms.

----- X 10

Plot size in Sqr. Mtrs.

18. Standard Error

The calculation of standard errors and their study is helpful in assessing the adequacy of the sample size, trend of changes in yield rates and in planning other allied studies. It is calculated as under:-

$$\% \text{ Standard Error} = \frac{\text{S.E. of the Estimate}}{\text{Estimate}} \times 100$$



कार्य सारांश

प्रत्येक राज्य/जिला/प्रभाग या ऐसे प्रशासनिक स्तरों के लिए, प्रमुख खाद्यान्न तथा गैर-खाद्यान्न फसल का प्रति हैक्टेयर औसत उपज आंकलन जो कि फसल उत्पादन आंकलन की दृष्टि से महत्वपूर्ण है, फसल आंकलन सर्वेक्षण कार्यक्रम के अन्तर्गत वैज्ञानिक रूप से नियोजित फसल कटाई प्रयोगों से प्राप्त किया जाता है। वर्ष 2017-18 के लिए फसल प्राक्कलन सर्वेक्षण की मुख्य विशेषताएँ निम्न हैं:

- वर्ष 2017-18 के दौरान फसल प्राक्कलन सर्वेक्षण कार्यक्रम के अन्तर्गत 59 खाद्यान्न तथा 17 गैर-खाद्यान्न फसलों को शामिल किया गया। 2017-18 के दौरान 5 नई फसलें जोड़ी गई। नई फसलों का समावेश राज्यों द्वारा उपज दर के सांख्यिकीय प्राक्कलन हेतु प्रयोग में ली जाने वाली वैज्ञानिक पद्धतियों एवं प्रक्रियाँ पर बल देने को परिलक्षित करती हैं
(पैरा-3.3)
- आन्ध्र प्रदेश, बिहार, गुजरात, झारखण्ड, कर्नाटक, महाराष्ट्र, राजस्थान तथा तमिलनाडु में कुछ महत्वपूर्ण फसलों के लिए दो परतीय के साथ-साथ चार परतीय स्तरीकरण को अपनाया गया है, जबकि मध्य प्रदेश तथा छत्तीसगढ़ में धान तथा गेहूं के लिए तीन परतीय वर्गीकरण को अपनाया गया।
(पैरा-4.7, और सारणी-3)
- गत वर्ष के कुल 16,47,802 प्रयोगों की तुलना में वर्ष 2017-18 के लिए विभिन्न फसलों के कुल प्रयोग 16,95,660 नियोजित किये गए। प्रतिदर्श परिमाण में 47,858 प्रयोगों की वृद्धि खाद्यान्न फसलों में 40,209 प्रयोगों तथा गैर-खाद्यान्न फसलों में 7,649 प्रयोगों की वृद्धि के कारण है।
(पैरा-7.1)
- खाद्यान्न फसलों के लिए 14,08,781 प्रयोगों में से केवल 64,785 (4.6%) प्रयोग 19 फल तथा सब्जी की फसलों पर 13 राज्यों में नियोजित किये गये। भारत में फसल स्वरूप उत्तरोत्तर नकद फसल एवं फलों व सब्जियों की तरफ अग्रेषित हो रहा है। राज्यों द्वारा नई फसलों को उनके महत्व, सापेक्ष सार्थकता यथा कुल भारतीय उत्पादन में उनका हिस्सा इत्यादि के आधार पर समावेशित करने हेतु उचित प्रयास किए जाना चाहिए।
(पैरा-7.5 और परिशिष्ट-II)
- फसल कटाई प्रयोगों के संचालन में लगे प्राथमिक कर्मियों के लिए नियमित प्रशिक्षण कार्यक्रमों को वर्ष 2017-18 के दौरान सभी राज्यों/संघ राज्यों में आयोजित किया गया। असम, गोवा, गुजरात (कृषि) व महाराष्ट्र (जिला परिषद) राज्यों ने प्राथमिक कर्मचारियों की शत प्रतिशत उपस्थिति दर्ज कराई जो कि अत्यंत सराहनीय है छत्तीसगढ़ (कृषि), हिमाचल प्रदेश (खरीफ एवं रबी में कृषि), महाराष्ट्र (खरीफ एवं रबी सभी एजेंसी में सिवाये जिला परिषद रबी में), उत्तरप्रदेश (खरीफ एवं जायद में राजस्व) एवं उत्तरखण्ड (राजस्व) में विभिन्न एजेंसियों की उपस्थिति अखिल भारतीय औसत (86 प्रतिशत) से कम थी। अप्रशिक्षित कर्मचारियों द्वारा फसल कटाई प्रयोगों का क्षेत्र कार्य किये जाने से इसकी वस्तुनिष्ठता पर विपरीत प्रभाव पड़ता है। अनुपस्थित रहे प्राथमिक कर्मियों के लिए अलग से प्रशिक्षण कार्यक्रम आयोजित करने की सम्भावनाओं को और अधिक मुहैया करवाए जाने की आवश्यकता है।
(पैरा-8.2)
- फसल कटाई प्रयोग के संचालन में कार्यरत प्राथमिक कर्मियों को प्रशिक्षण देने के लिए आयोजित कुल 1948 प्रशिक्षण केन्द्रों में से 872 (44.76%) प्रशिक्षण केन्द्रों में रा.प्र.स.का. के अधिकारियों ने पर्यवेक्षक के रूप में भाग लिया और 134 (6.88%) केन्द्रों में प्रशिक्षण अधिकारी के रूप में भाग लिया।
(पैरा-8.3)
- फसल प्राक्कलन सर्वेक्षण 2017-18 के अन्तर्गत नियोजित प्रयोगों में से लगभग 18 प्रतिशत प्रयोगों का ही

पर्यवेक्षण भी सम्मिलित है। आन्ध्र प्रदेश, बिहार, छत्तीसगढ़, गोवा, गुजरात, हरियाणा, हिमाचल प्रदेश, जम्मू एवं कश्मीर, झारखण्ड, कर्नाटक, मध्य प्रदेश, मेघालय, पंजाब, राजस्थान, उत्तराखण्ड तथा पश्चिम बंगाल में राज्य सांख्यिकीय विभाग द्वारा कुल पर्यवेक्षण 10 प्रतिशत से कम था।

(पैरा-9.3)

8. फसल सांख्यिकी सुधार योजना के अंतर्गत फसल कटाई प्रयोगों पर प्रतिदर्श जांच के निष्कर्ष अनुलग्नक III(c) में सारणीबद्ध है। विगत वर्षों में प्राथमिक कर्मचारियों द्वारा किए गए फसल कटाई प्रयोगों के जांच से संबंधित राज्यों में सामान्य फसल प्राक्कलन सर्वेक्षण नियमावली (जी सी ई एस मैनुअल) की निर्धारित कार्यप्रणाली का पालन करने वाले फसल कटाई प्रयोगों के प्रतिशत में वृद्धि हुई है। इस संबंध में ओडिशा राज्य के प्रयास अत्यन्त सराहनीय है जहां 90% से ज्यादा प्रयोग त्रुटिरहित पाए गए। अखिल भारतीय औसत का आंकड़ा यह दर्शाता है की 58% फसल कटाई प्रयोग निर्धारित सा.फ.प्रा.स. कार्यप्रणाली और सांख्यिकीय प्रक्रियां के अनुसार सम्पन्न किए गए। इन निष्कर्षों को नियमित रूप से विभिन्न राज्य कृषि सांख्यिकी प्राधिकारों के ध्यान में लाया गया। समस्या वाले क्षेत्रों को उच्च स्तरीय समन्वय समिति की बैठकों में चर्चा के दौरान सामने लाने पर भी पर्याप्त ज़ोर दिया गया है।

(पैरा-9.5)

9. राज्यों यथा: केरल, ओडिशा, पंजाब, तेलंगाना, दादर और नगर हवेली, दमन और दीव तथा पुडुचेरी से फसल प्राक्कलन सर्वेक्षण का प्रत्युत्तर दर शत प्रतिशत दर्ज किया गया जो कि सराहनीय है। वर्ष 2017-18 के दौरान फसल प्राक्कलन सर्वेक्षण के अंतर्गत कुल प्रत्योत्तर 93 प्रतिशत था। असम, छत्तीसगढ़, गोवा, गुजरात, हरियाणा, जम्मू एवं कश्मीर, हिमाचल प्रदेश, झारखण्ड, कर्नाटक, महाराष्ट्र तथा मध्य प्रदेश में प्रत्युत्तर 90 प्रतिशत से कम था। फसल अनुमानों की विश्वसनीयता को बढ़ाने हेतु इन सभी राज्यों के राज्य प्राधिकारों को प्रत्युत्तर बढ़ाने के लिए उचित उपचारी उपाय अपनाए जाने की आवश्यकता है।

(पैरा-10.2)

10. अप्रत्युत्तरों को नियंत्रित करने हेतु प्रभावी उपचारी कदम उठाने के उद्देश्य से यह आवश्यक है कि क्षेत्र स्तर पर अप्रत्योत्तर तथा सारणीयन स्तर पर प्रयोगों को रद्द करने के कारणों का विश्लेषण किया जाए।

(पैरा-10.6)

11. फसल प्राक्कलन सर्वेक्षण 2017-18 के परिणामों से स्पष्ट होता है कि चावल (खरीफ), बाजरा, मूँगफली (रबी), जूट तथा राई-सरसों को छोड़ कर ज्यादातर महत्वपूर्ण फसलों में पिछले वर्ष की तुलना में अखिल भारतीय स्तर पर उपज दर अनुमानों में बढ़ातीरी आयी है।

(पैरा-11.3)

12. असम, हिमाचल प्रदेश, कर्नाटक, केरल, मेघालय, राजस्थान एवं उत्तराखण्ड में सभी फसलों के उपज दरों के अनुमानों का 5% मानक त्रुटि प्रतिशत की स्वीकृत सीमा के अंदर था। जबकि, फसलों के उपज दरों के अनुमानों का मानक त्रुटि प्रतिशत, छत्तीसगढ़ में ज्वार (खरीफ); सोयाबीन (खरीफ) एवं कोदो-कुटकी (खरीफ), हरियाणा में मक्का, कर्नाटक में ज्वार (ग्रीष्म उच्च उपज सिंचित); मूँग (रबी); उरद (रबी); सेव (खरीफ); टमाटर (ग्रीष्म); मूँगफली (रबी, असिंचित); अलसी (रबी); सूरजमुखी (ग्रीष्म, सिंचित); अवारे (रबी); लोबिया (ग्रीष्म); फूलगोभी (खरीफ), मध्य प्रदेश में चावल (खरीफ उच्च उपज सिंचित); मिर्च (रबी), ओडिशा में मक्का (शरद); गेहूं (ग्रीष्म); जूट (खरीफ), तेलंगाना में बाजरा (खरीफ); रागी (खरीफ); कोरा (खरीफ); तिल (खरीफ); तंबाकू (वी), पश्चिम बंगाल में अलसी (खरीफ), दादर एवं नगर हवेली में चावल (खरीफ); रागी (खरीफ) और तमिलनाडु में सूरजमुखी (खरीफ) फसलों के लिए ज्यादा (10% से अधिक) पाया गया। निर्दिष्ट फसलों के लिए प्रतिदर्श आकार बढ़ाकर या अप्रत्युत्तर की दर को कम कर मानक त्रुटि को घटाने के लिए समुचित कदम उठाने की आवश्यकता है। यह लंबे समय से राज्यों में प्रचलित महत्वपूर्ण फसलों के जिला स्तर पर आकलन में अपेक्षित परिशुद्धता को सुनिश्चित करेगा।

(पैरा-11.5 और सारणी 17)

13. उपज दरों के स्तरीकरणोत्तर विश्लेषण को कुछ राज्यों में कुछ फसलों पर लागू किया जा रहा है। यह आवश्यक है कि इस विश्लेषण के क्षेत्र को सभी राज्यों में अधिक से अधिक फसलों पर लागू किया जाए। जिसे प्राक्कलन की परिशुद्धता को दो महत्वपूर्ण निविष्ट यथा सिचाई एवं बीज किस्म के आधार पर बढ़ाया जाए।

(पैरा-12.2)



EXECUTIVE SUMMARY

Estimates of average yield per hectare of principal food and non-food crops for each State/District/Division or such administrative levels which are of importance from the point of view of working out estimates of crop production, are derived from scientifically planned crop cutting experiments under the programme of Crop Estimation Surveys. The salient features of the Crop Estimation Surveys for the year 2017-18 are highlighted below:-

1. 59 food and 17 non-food crops were covered under the programme of Crop Estimation Surveys (CES) during the year 2017-18. Five New Crops were added during 2017-18. Inclusion of new crops reflects the emphasis of the State(s) on the increasing adoption of Statistical methodologies and procedures for the scientific estimation of Crop yield rate. **(Para-3.3 & Para- 3.4)**
2. Two-fold as well as four-fold stratification has been adopted for some important crops in Andhra Pradesh, Bihar, Gujarat, Jharkhand, Karnataka, Maharashtra, Rajasthan and Tamil Nadu. In Madhya Pradesh and Chhattisgarh, however, a three-fold classification has been adopted for Paddy and Wheat. **(Para-4. 4 -4.6, & Table-3)**
3. A total of 16,95,660 crop cutting experiments were planned on different crops during 2017-18 as compared to 16,47,802 experiments in the previous year. The increase of 47,858 experiments in the sample size is due to increase of 40,209 experiments under food crops and increase of 7,649 experiments under non-food crops. **(Para-7.1)**
4. Out of 14,08,781 experiments for food crops, only 64,785 (4.6 %) experiments were planned on 19 fruits and vegetable crops covered in 13 States. Cropping pattern in India is gradually shifting towards Cash crops and Fruits & Vegetables. Adequate efforts should be made by the States to include new crops in GCES based on its importance, relative significance etc. measured in terms of share in all India production. **(Para-7.5 & Appendix-II)**
5. Regular programmes of training for primary workers engaged in the conduct of crop cutting experiments were organised in all the States/UTs during 2017-18. It is pleasing to note that States: Assam, Goa, Gujarat (Agriculture), Maharashtra (Zilla Parishad) recorded cent percent attendance of their primary staff. However, attendance of various agencies at the training centers was less than All India average (86%) in Chhattisgarh (Agriculture), Himachal Pradesh (Agriculture in Kharif, Rabi), Maharashtra (all agencies for both seasons except Zilla Parishad in Rabi), Uttar Pradesh (Kharif and Zaid in Revenue), Uttarakhand (Revenue). Conducting of the experiments by untrained personnel would impact its objectivity adversely. The feasibility of organising separate training for the absentee primary workers needs to be explored. **(Para-8.2)**
6. In all, out of the 1948 training centers, NSSO officials participated in 872 (44.76%) centers as observers and imparted training in 134 (6.88 %) centers. **(Para-8.3)**
7. 18% of the experiments planned under CES during 2017-18 were supervised. This includes 2% experiment which were supervised under Scheme of Improvement of Crop Statistics (ICS Scheme) implemented by NSSO. The total supervision by State Statistical Department was below 10% in Andhra Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Meghalaya, Punjab, Rajasthan, Uttarakhand and West Bengal. **(Para-9.3)**

8. The findings of the sample check on crop cutting experiments under the Scheme of Improvement of Crop Statistics are tabulated in Annex III(c). The Supervisory checks over the years on CCEs conducted by primary workers have resulted in increasing percentage of CCEs adhering to prescribed methodologies of the respective State GCES manual. The efforts of Odisha state are highly praiseworthy in this regard where more than 90% of the experiments conducted were found to be free from any kind of error. The figure of all India average shows that 58% sample experiments were conducted as per the prescribed GCES manual & Statistical procedures of the respective States/ UTs. These findings are brought to the notice of the various State Agricultural Statistics Authorities (SASAs) on a regular basis. Adequate emphasis is also given to focus on the problem areas in the deliberations of the High Level Co-ordination Committee meetings of the States. **(Para-9.5)**
9. It is commendable to note that CES response rate was cent percent from Kerala, Odisha, Punjab, Telangana, Dadar & Nagar Haveli, Daman & Diu and Puducherry. However, in 2017-18, the overall response under CES was 93 percent. In Assam, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Maharashtra and Madhya Pradesh the response was below 90 per cent. Adequate remedial measures need to be taken by SASAs of these States to improve the response so as to increase the reliability of the crop yield estimates. **(Para-10.2)**
10. With a view to take effective remedial measures to control non-response, it is necessary to analyse the reasons for non-response at field level and rejection of experiments at the tabulation stage. **(Para-10.6)**
11. The results of CES for 2017-18 reveal that the yield rate estimates at All-India level increased as compared to the previous year for majority of important crops except Paddy (Kharif), Bajra (Comb.), Rape & Mustard, Sugarcane, Groundnut (Rabi) and Jute. **(Para-11.3)**
12. The percentage standard error of the estimates of yield rate of crops was found to be within the acceptable limits of 5% for States namely: Assam, Himachal Pradesh, Kerala, Meghalaya, Uttarakhand and Puducherry. However, it was high (more than 10%) in Chhattisgarh for Jowar (Kharif), Soyabean and Kodon-Kutki; Haryana for Maize; Karnataka for Jowar (Sum Hyv.Ir.), Greengram (Rabi), Blackgram (Rabi), Save (Kharif), Tomato (Summer), Groundnut (Rabi UI), Linseed (Rabi), Sunflower (Summer, Irr.), Avare (Rabi), Cowpea (Summer), Cauliflower (Kharif); Madhya Pradesh for Rice (Kh. Hyv Ir.), Chillies (Rabi), Odisha for Maize (Winter), Wheat (Summer), Jute (Kharif); Telangana for Bajra (Kharif), Ragi (Kharif), Korra (Kharif), Seasamum (Kharif), Tabacco (V), West Bengal for Linseed (Kharif) and Dadar Nagar & Haveli for Rice (Kharif), Ragi (Kharif) and Tamilnadu for Sunflower (Kharif). Suitable steps need to be taken to reduce the standard error either by increasing the sample size or reducing the rate of non-response to ensure the desired precision which is followed since long in various States in estimates at the district level is obtained. **(Para-11.5 & Table-17)**
13. Post-stratification analysis of yield rates as is being adopted by some States for a few crops. It is necessary to extend the scope of this analysis to more crops in all the States to increase the precision of estimates according to the two critical inputs viz. Irrigation and Seed Variety. **(Para-12.2)**



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INTRODUCTION

1

- 1.1 Agricultural sector continues to play a dominant and vital role in the Indian Economy by contributing a sizable share in the National Product and absorbing bulk of the economic activity pursued by majority of the population. In the context of primacy of Agriculture, timely and reliable statistics on crop production is of vital importance and significance. Crop Production has two major components viz., Area sown and average Yield rate. The primary responsibility for collection of statistics on these two aspects rests with the State/UT Governments. Statistics of Land Use and Area Under Crops are obtained as by-product of land revenue administration in respect of the land record States/UTs, commonly known as Temporarily Settled States. On the other hand, the Permanently Settled States, viz., Kerala, Odisha and West Bengal are reporting Land Utilisation and Area Statistics based on sample surveys. At present, over **95 percent** of foodgrain production is estimated on the basis of yield rates obtained from scientifically planned crop cutting experiments conducted under the programme of Crop Estimation Surveys (CES) carried out by the State/UT Governments.
- 1.2 The Field Operations Division of NSS as a consequence of the Cabinet Resolution of 1952 that mandated work related to the estimation of food production and large-scale sample survey spearheaded the systematic attempt to develop Statistical architecture for Crop Statistics in India. This involved monitoring, forecasting and estimation of area under major crops and estimation of crop wise yield through twin surveys namely Land Utilisation Surveys (LUS) and Crop Yield Statistics (CYS) till 1970.
In 1962, Agriculture Statistics Division of Directorate of National Sample Survey started publication of systematic series of reports on its work and the first such review was published in September 1964 containing consolidated results of Crop Estimation Surveys on principal food crops carried out in the States from 1949-50 to 1960-61. Field Operations Division (FOD) of National Sample Survey Office (NSSO) continues to consolidate the results of crop cutting experiments under Crop Estimation Survey every year on the basis of



information received from various State Government/UTs. The report attempts to bring out the consolidated results on principal food and non-food crops. The present report is Seventieth in the existing series and relates to the Agriculture year 2017-18.



OBJECTIVE

2

- 2.1 “An Extensive series of CCE’s on paddy carried out by Sir John A. Hubback more than 20 years ago over a greater part of the Rice tracts in Bihar and Orissa . So far as I know these are the earliest CCE(s) experiments based on the principle of random sampling anywhere in the world”

Professor RA Fisher in his memorandum dated 2nd March 1945 addressed to Imperial Council of Agricultural Research, GOI.

Sir John A Hubback of the then Indian Civil Services carried out crop cutting work in India in 1923, 1924 and 1925 and was a pioneer in CCE(s) based on principle of Simple random sampling. His de novo work not only inspired administrators like Shri C.D. Deshmukh & Shri P.S. Rau but also legendary Statisticians like Professor R.A. Fisher in Britain and Dr. P.V. Sukhatme of ICAR-Indian Agricultural Statistics Research Institute, New Delhi and Prof. P.C. Mahalanobis of Indian Statistical Institute (ISI), Kolkata in India.

The primary objective of Crop Estimation Surveys is to obtain fairly reliable estimates of average yield rates of principal food and non-food crops for each State and Union Territory and for lower administrative unit such as Block, District etc. which are important from the point of view of crop production. The estimates of yield rates, thus arrived at, are generally adopted for the compilation of official estimates of crop production and used for the purposes of planning, policy formulation and implementation.

- 2.2 Under the programme of Crop Estimation Surveys, data on yield rates are collected through organising and conducting crop cutting experiments by applying statistical techniques of random sampling. The crop cutting experiment consists of identification & marking of an experimental plot of a specified size & shape in a selected field on the principle of random sampling, harvesting & threshing the produce and recording the weight of the produce. For a part of the experimental produce or in some cases for the entire produce of experiment, further processing of the harvested produce is done for determining the percentage recovery of dry grains or the marketable produce. For Paddy and Cotton, the yield is expressed in terms of Rice and Lint respectively after applying the standard recovery ratio and ginning ratio.



COVERAGE 3

- 3.1 During 2017-18, Crop Estimation Surveys (CES) was conducted in 20 land record States/UTs, 3 EARAS States and 6 other States / UTs as given in **Table-1**.

Table –1: Details of CES coverage during 2017-18

States in which C E S was conducted	
Land Record States/UTs	1. Andhra Pradesh 2. Assam 3. Bihar 4. Chhattisgarh 5. Gujarat 6. Haryana 7. Himachal Pradesh 8. Jammu &Kashmir 9. Jharkhand 10. Karnataka 11. Madhya Pradesh 12. Maharashtra 13. Punjab 14. Rajasthan 15. Tamil Nadu 16. Telangana 17. Uttar Pradesh 18. Uttarakhand 19. Dadra & Nagar Haveli 20. Puducherry
EARAS States	1. Kerala 2. Odisha 3. West Bengal
Other States and UTs	1. Andaman district of A & N Islands 2. Daman & Diu 3. Goa 4. Manipur 5. Meghalaya 6. Tripura
States/UTs in which CES was not conducted	
1. Arunachal Pradesh 2. Chandigarh 3. Lakshadweep	4. Mizoram 5. Nagaland 6. Sikkim



- 3.2 Details of crops for which crop cutting experiments under CES were planned in States/UTs together with the year of initiation of the survey and adoption of CES results for estimates of production are given in **Appendix-I**. It also gives information about the stratum, pre-stratification, if any, made in different States and size & shape of the plot adopted for the crop cutting experiments. It is evident that there is no uniformity among the States in respect of the plot size and shape even for major crops. Attempts need to be made to adopt the uniform shape and size of the cuts at least for important crops.
- 3.3 During the agricultural year 2017-18, a total of 76 crops comprising 59 food and 17 non-food crops were covered under CES in different States/UTs. The details of different categories of crops are given in Table –2 and also presented in Chart I & II.

Table - 2: Crops covered under CES during 2017-18

S. No.	Particulars	No. of crops (%)
A. Food Crops		
1	Cereals (Paddy, Jowar, Bajra, Maize, Ragi (Mandua), Wheat, Barley)	7 (12%)
2	Pulses & Beans (Gram (Bengalgram), Redgram (Tur/Arhar), Greengram (Moong), Blackgram (Urd), Lakh (Khesari), Masur, Horsegram (Kulthi), Peas, Moth, Cowpea (Lobia), Guar, Chowla)	12 (20%)
3	Small Millets (Sawan (Jhangora), Korra, Kodon-Kutki (Kodan), Navane, Save, Samai, Varagu)	7 (12%)
4	Condiments & Spices (Chillies, Cumin, Fennel, Areca nut, Pepper, Saffron, Turmeric, Ginger, Garlic, Coriander, Methi, Nutmeg)	12 (20%)
5	Fruits & Vegetables (Lichi, Banana, Mango, Guava, Jackfruit, Cashewnut, Tapioca, Pine Apple, Potato, Onion, Brinjal, Tomato, Cauliflower, Papaya, Plantain, Avare (Sem), Tamarind, Beans, Cabbage)	19 (32%)
6	Sugar (Sugarcane & Cocoa)	2 (4%)
Total		59
B. Non -Food Crops		
1	Oil Seeds (Groundnut, Sesamum (Gingelly), Castor, Rape & Mustard, Linseed (Alsi), Safflower, Sunflower, Soyabean, Tara Meera, Coconut, Niger)	11 (65%)
2	Fibres (Cotton, Jute, Mesta)	3 (17.5%)
3	Drugs & Narcotics (Tobacco, Isabgol, Betel Leaves)	3 (17.5%)
Total		17



Chart - I

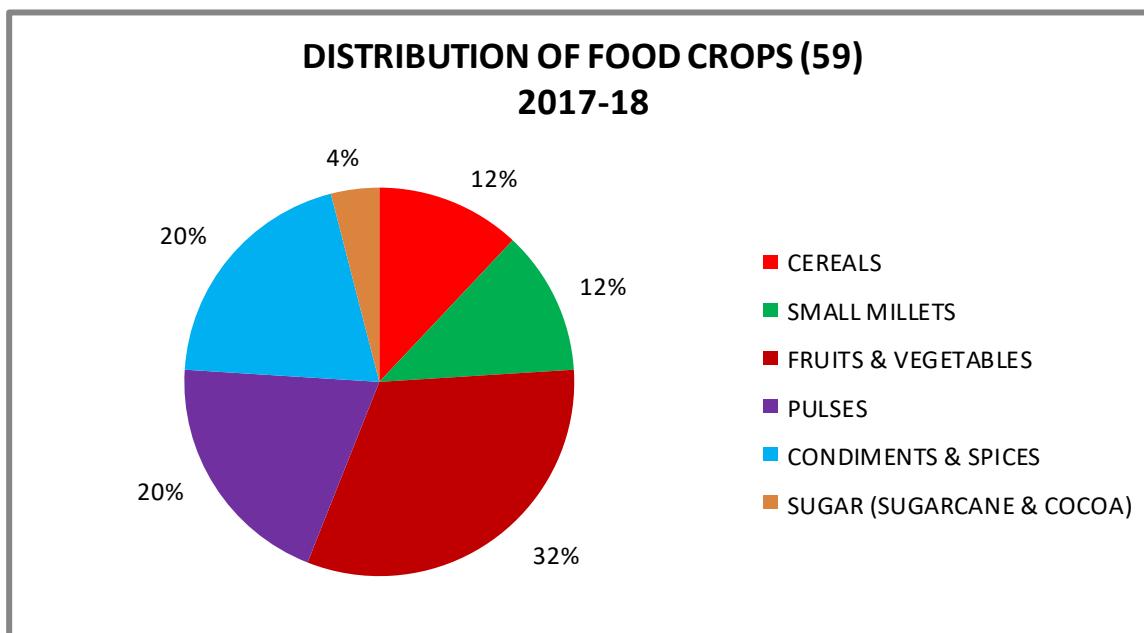
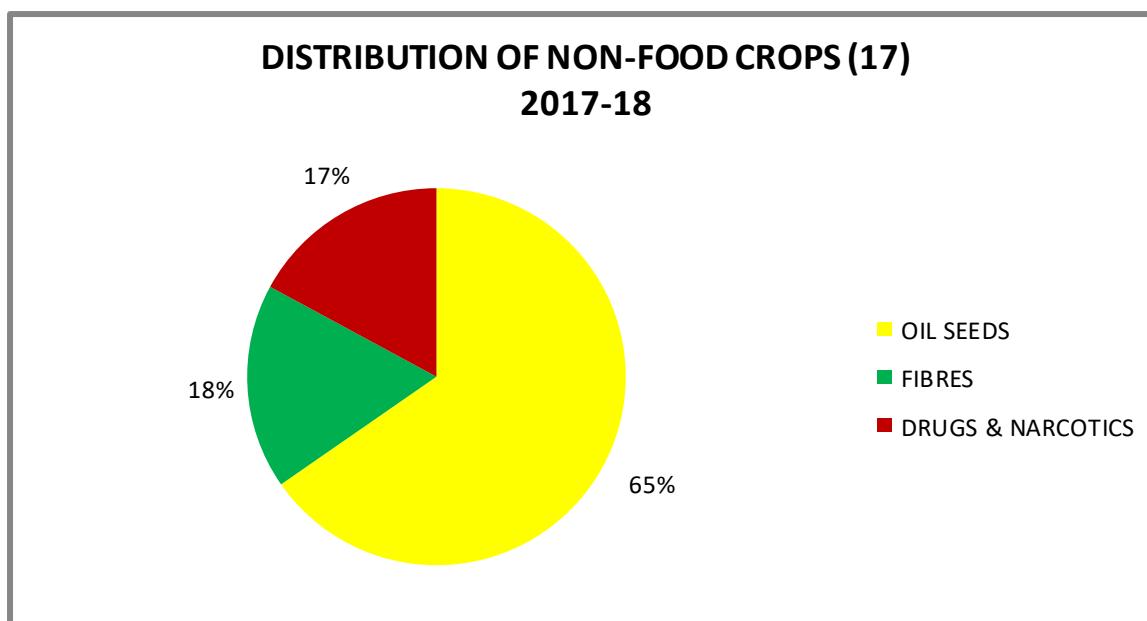


Chart – II





3.4 The Field Operations Division (FOD) of the National Sample Survey Office (NSSO) continuously reviews the coverage of crops under CES in States / UTs from the point of view of its importance, relative significance etc. measured in terms of share in All India production. *Five Crops namely: Tamarind, Nutmeg and Betel Leaves in Kerala State & Cabbage and Beans in Karnataka State were added during 2017-18. Inclusion of new crops reflects the emphasis of the State(s) on the increasing adoption of Statistical methodologies and procedures for the scientific estimation of Crop yield rate.*



SAMPLING DESIGN

4

- 4.1 The sampling design generally adopted for the CES during 2017-18 is that of Stratified Multi-Stage Random Sampling, with Tehsils/Taluks/RI circles/CD Blocks/Anchals etc. as Strata and revenue village within a Stratum as the First Stage Unit of sampling, survey number/field within each selected village as the Second Stage Unit of sampling and experimental plot of a specified shape and size as the ultimate unit of sampling. **Appendix -I** inter-alia, gives the stratum, shape and size of the experimental plot for each crop in different States/UTs. In each selected primary unit of sampling, generally two survey numbers/fields growing the experimental crop are selected for conducting crop cutting experiments. However, in Dadra and Nagar Haveli, three survey numbers/ fields are selected instead of two.
- 4.2 Generally, 80-120 experiments are conducted for a crop in a major district, where a district is considered as major for a given crop if the area under the crop in the district exceeds 80,000 hectares or lies between 40,000 and 80,000 hectares but exceeds the average area per district in the State. Otherwise, district is considered as minor for a given crop. Experiments in minor districts are so adjusted that the precision of the estimate is fairly high and the workload on the field staff is manageable. On an average, about 44 or 46 experiments are planned in a minor district. The number of experiments allotted to a district is distributed among the strata within the district roughly in proportion to the area under the crop in the stratum.



- 4.3 In the 3 non-land record States of Kerala, Odisha and West Bengal, both area and yield are estimated on the basis of sample surveys. The crop cutting experiments are planned in a sub-sample of the primary units selected for the purpose of area enumeration. While the general procedure for selection of sampling units at different stages is the same as that in other States, some special features in these States need specific mention.
- 4.4 In **Kerala**, block/city corporation or municipalities with an area of 10 sq. kms. and above are treated as separate stratum. Municipalities with an area of less than 10 sq. kms. are merged with adjoining blocks and treated as a single stratum. These blocks are divided into a number of Investigator Zones depending on the area of a block, nature of land etc. City corporation area is divided into three Investigator Zones. Each Municipality with an area more than 10 sq. kms. is treated as a single Investigator Zone. The number of crop cutting experiments conducted in each Investigator Zone is 8 per season for Paddy, 3 each for Coconut and Banana, and 2 each for Tapioca, Areca nut, Cashewnut, Pepper, Plantain, Sesamum and Jackfruit in an agricultural year. In Municipal area having separate Investigator Zone, 10 crop cutting experiments are conducted in respect of Paddy per season and 5 for Coconut per year. For City Corporation areas, 8 experiments for Paddy per season and 5 for Coconut per year in one Investigator Zone are conducted.
- 4.5 In **Odisha**, crop-cutting experiments for Paddy are conducted in 40% of EARAS villages having even serial nos. except serial nos. ending with "Zero" i. e. 10, 20, etc. in each block and for other crops, 50% of sample villages occurring against the even serial nos. i.e. 2, 4 and 6 etc. during Autumn and Winter Seasons. In Summer season, all the villages selected for Area Enumeration Survey under EARAS are covered under CES for Paddy and other crops. For Paddy, the crop cutting experiments are planned in proportion to crop area subject to minimum of two and maximum of four experiments in a village. For other crops, only one experiment is conducted in a village.
- 4.6 In the State of **West Bengal**, the area and yield surveys conducted by the Bureau of Applied Economics & Statistics (BAE&S) on the basis of grid sampling followed till 1985-86, has been dispensed with and the Scheme "Establishment of an Agency for Reporting Agricultural Statistics" (EARAS) has become not only the primary source for area statistics but also the source to provide the frame for selection of villages



for conduct of crop cutting experiments under CES in the State. Since Kharif 1996-97, the frame for sampling of plots for CCEs is prepared by BAE&S on its own. Ten mouzas out of all the EARAS mouzas in a block are randomly selected for CCE. A 10% systematic sample (subject to a minimum of 100 plots) of all the plots in a selected mouza, is taken and the type of land use for each plot in the sample is identified. In this way, a sub-frame of plots cultivating each crop is prepared for each such mouza. If the number of plots cultivating a crop in a mouza is too small, all the plots cultivating the crop are enumerated. The plots for conducting CCEs are sampled out of this sub-frame. In all, 20 plots are taken in the form of two inter-penetrating sub-samples of size 10 each for each block for a crop. On the basis of these, two independent estimates of yield rate are obtained for a block and these are later combined to give an overall estimate.

- 4.7 In some States, the sampling design takes into account the stratification according to inputs viz. Irrigation and Seed variety for major crops. Details of such stratification are given in **Table-3**. While the idea of evolving a general design for stratification needs examination, it is felt that there would be practical difficulties in attempting stratification according to variety mainly due to non-availability of required data in the present system of area statistics at different levels.



CROP ESTIMATION SURVEY

Table - 3: Stratification according to inputs adopted in sampling design during 2017-18

Sl. No.	State	Crop for which pre- stratification is done according to Irrigation & seed	Irrigation	Seed
1.	Andhra Pradesh	-	Paddy (Kharif & Rabi)	-
2.	Bihar	Paddy (Agh.) & Wheat	Paddy (Bha.) & Sugarcane	Paddy (Gar.) & Maize (Bha. & Gar.)
3.	Chhattisgarh	Paddy* & Wheat*	-	-
4.	Gujarat	-	Paddy (Kharif), Wheat & Cotton	-
5.	Jharkhand	-	-	Paddy (Agh.) & Wheat
6.	Karnataka	Paddy (Kharif, Rabi.* & Sum.*), Jowar (Kharif Rabi & Sum.**), Bajra (Kharif), Maize (Kharif, Rabi & Sum.**), Ragi (Kharif,Rabi & Sum.**) & Wheat	Groundnut [@] (Kharif, Rabi & Sum.), Cotton (Kharif), Gram , Sunflower (Kharif, Rabi & Sum. *)	Maize (Sum.)
7.	Madhya Pradesh	Paddy * & Wheat *	-	-
8.	Maharashtra	-	Paddy (Kharif), Jowar (Rabi), Bajra, Wheat & Cotton .	-
9.	Rajasthan	-	Gram & Wheat	-
10.	Tamil Nadu	-	Jowar, Bajra, Maize, Ragi, Groundnut, Sesamum & Cotton.	-

* Pre –stratification according to seed is only for irrigated.

@ Pre-stratification is only in the relevant districts and not for the State as a whole.

** Pre –stratification according to irrigation is only for HYV.



ORGANISATION

5

- 5.1 Assignment relating to planning of survey, training of field staff, organisation of field work and tabulation of data is the responsibility of the State Agricultural Statistics Authority (SASA) in each State/UT. The SASA in the State is either the Director of the Bureau/Directorate of Economics and Statistics or the Director of Agriculture or the Director of Land Record depending on the administrative arrangements in each State/UT. The primary field work of the survey is generally entrusted to the staff of the State Department of Revenue, Agriculture, Community Development or Statistics, exclusively or as a part of their normal duties. In the five States viz. Assam, Kerala, Meghalaya, Odisha and in the UT of Puducherry, the primary work during 2017-18 was carried out by trained whole time staff of the Department of Statistics. **Appendix-III** gives State-wise information about the primary agency assigned with the task of conduct of crop cutting experiments on different crops. Workload of the primary field staff of different agencies in the State/UT in the two seasons and also for the entire year is shown in **Appendix-IV**. It is observed that at all India level, 2.7 percent and 2.5 percent of the primary workers had to conduct more than 12 experiments during Kharif and Rabi respectively. Likewise, 4.5 percent of the primary workers had to conduct more than 20 experiments annually during 2017-18. As per the detail given in **Table-4**, it is observed that the workload of primary worker during the year was high (more than the All India figures, **Appendix-IV**) in Andhra Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Kerala, Madhya Pradesh, Meghalaya, Odisha, Punjab, Telangana, and West Bengal.



Table - 4: Details of the high workload of primary workers during 2017-18

State	Agency for field work	Total strength	No. of primary workers conducted more than 12 Experiments		
			Kharif	Rabi	20 Expts. Annually
Assam	Statistical	85	85	85	85
Chhattisgarh	Agriculture	507	28	43	151
Goa	Agriculture Kh.	23	23	-	23
	Agriculture Rabi	21	-	15	
Kerala	Statistical	1028	-	-	811
Madhya Pradesh	Revenue	4407	1072	1275	1285
Meghalaya	Statistical	46	46	24	46
Odisha	Statistical	677	-	-	677
Punjab	Agriculture Kh.	738	153	-	8
West Bengal	Agriculture	254	210	242	183

- 5.2 Heavy work load of primary workers adversely affects the results of crop cutting experiments and may also lead to loss of experiments. States may make efforts to ensure that experiments are allotted to the primary workers as per the norms in order to improve the quality in the conduct of experiments.



CO-ORDINATION

6

- 6.1 The Field Operations Division of National Sample Survey Officei.e. NSSO (FOD) has the overall responsibility of assisting the States/UTs in developing suitable techniques for obtaining reliable and timely estimates, providing technical guidance and ensuring adoption of uniform concepts, definitions and procedures in CES in the States/UTs. It reviews the design, plan, details of implementation and the results of the surveys. NSSO (FOD) also associates itself with the conduct of training camps organised for the State field staff in the capacity of trainers and observers. Under the scheme namely Improvement of Crop Statistics (ICS), it participates in the primary field work on sample basis by exercising technical supervision.
- 6.2 The NSSO (FOD) received plan of work of CES for the year 2017-18 from most of the States and offered comments, wherever necessary, with regard to planning and organisation of the survey. Some of the earlier suggestions with regard to timely selection of sample units, improving the response rates, ensuring adequate departmental supervision, timely communication of preliminary results and supply of equipment are reiterated. NSSO (FOD) stresses on adoption of statistical methodology by the States in the conduct of Crop Cutting Experiments which are not covered in CES.



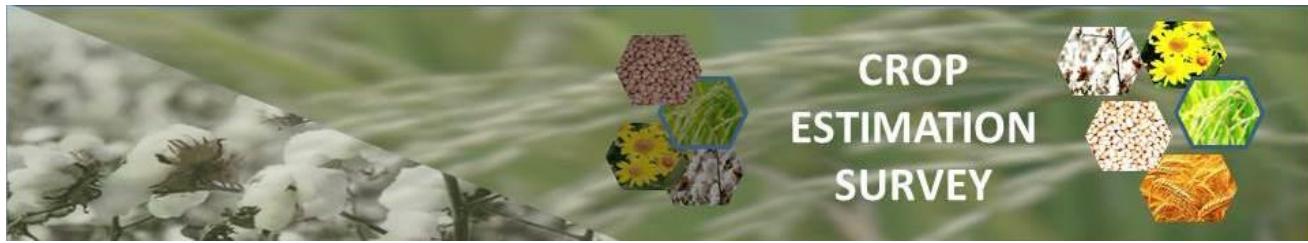
7

SAMPLE SIZE

- 7.1 During the year 2017-18, a total of 16,95,660 experiments were planned under CES at All India level. The corresponding figure during 2016-17 was 16,47,802 experiments. This shows an increase of 47,858 experiments during 2017-18. The increase in sample size is due to increase of 40,209 experiments under food crops and increase of 7649 experiments under non- food crops as shown in **Table-5** below.
- 7.2 The number of experiments planned over the last 10 years, given in **Table-5**, shows an overall rising trend, indicating the overwhelming response to the adoption of objective sampling technique of crop cutting experiments in greater magnitude from year to year for estimation of yield rates in the country. The number of experiments is showing steady increase over the past few years owing to the need for crop yield estimates at lower administrative levels i.e. Block, Gram Panchayats in the wake of Government's efforts of providing insurance cover to farmers for crop damage under Pradhan Mantri Fasal Bima Yojana (PMFBY) also conspicuous in 2017-18. **However, the methodological juxtaposition of PMFBY in GCES is raising serious quality concerns in collection of Yield data and estimation procedure in some States due to marked procedural deviations and objectives of PMFBY vis-à-vis GCES.** States like Bihar, Gujarat, Haryana, Jharkhand, Karnataka, Maharashtra, Odisha, Rajasthan, Uttar Pradesh and West Bengal needs to revisit the single series efficacy.

Table –5: Number of experiments planned under CES during 2017-18

Year	Kharif			Rabi/Sum.			Total		
	Food	Non-Food	Total	Food	Non-Food	Total	Food	Non-Food	Total
2007-08	489671	106748	596419	306138	71061	377199	795809	177809	973618
2008-09	433612	84688	518300	304113	69344	373457	737725	154032	891757
2009-10 @	470887	100605	571492	307216	72049	379265	778103	172654	950757
2010-11 * #	433789	84023	517812	333409	68004	401413	767198	152027	919225
2011-12 #	438205	87113	525318	328639	72660	401299	766844	159773	926617
2012-13 **	453042	92265	545307	327987	73790	401777	781029	166055	947084
2013-14***	532491	90424	622915	416531	77460	493991	949022	167884	1116906
2014-15 ##	649352	96000	745352	474258	88415	562673	1123610	184415	1308025
2015-16 ###	588743	102948	691691	479032	81390	560422	1067775	184338	1252113
2016-17 \$	724615	158631	883246	643957	120599	764556	1368572	279230	1647802
2017-18 \$\$	751071	165287	916358	657710	121592	779302	1408781	286879	1695660



- @ It includes figures for the year 2005-06 for Jammu & Kashmir.
- * It includes figures for the year 2005-06 for Jammu & Kashmir and Jharkhand, Uttarakhand and for the year 2009-10 as no data for subsequent years 2010-11, 2012-13 and 2013-14 was received from respective SASA, till finalization of the Report. In the State of Tamil Nadu, data in respect of NAIS not included.
- # It includes figures for the year 2009-10 for Jharkhand and for the year 2010-11 for Bihar, Haryana Maharashtra and Daman & Diu as no data was received till the finalization of the Report.
- ** It includes figures repeated for the year 2010-11 in the States of Bihar and Maharashtra.
- *** It includes figures repeated for the year 2010-11 in the State of Maharashtra and 2012-13 in the State of Gujarat.
- ## It includes figures repeated for the year 2010-11 in the State of Maharashtra and 2013-14 in the State of Karnataka.
- ### It includes figures repeated from the year 2014-15 in the States of Karnataka and Jammu & Kashmir.
- \$ It includes figures repeated from the year 2015-16 in the States of Haryana, Karnataka and Madhya Pradesh.
- \$\$ It includes figures repeated from the year 2015-16 in the States of Haryana, Madhya Pradesh and from the year 2016-17 in the State of Jharkhand & West Bengal.

7.3 **Table-6** gives the percentage of food and non-food crops season-wise (Kharif and Rabi) to the total experiments planned at the interval of every 5 years starting from 1974-75.

Table-6: Summary of Experiments planned under CES since 1974-75

Year	Total Experiments	Percentage of Kharif Crops		Percentage of Rabi Crops	
		Food	Non-Food	Food	Non –Food
1974-75	193639	43.0	18.9	33.5	4.6
1979-80	268782	51.7	10.7	32.2	5.4
1984-85	303465	50.2	10.3	32.0	7.5
1989-90 *	373094	47.9	9.3	35.1	7.7
1994-95	446003	46.7	9.4	34.5	9.4
1999-2000@	477514	47.4	10.6	33.6	8.4
2004-05	816315	49.1	9.0	35.0	6.9
2009-10	950757	49.5	10.6	32.3	7.6
2014-15 ##	1308025	49.7	7.3	36.3	6.7
2016-17 ###	1252113	47.02	8.23	38.26	6.50
2016-17 \$	1647802	43.98	9.62	39.09	7.31
2017-18	1695660	44.29	9.75	38.79	7.17

- * It does not include figures for West Bengal and Meghalaya as information was not received.
- @ It includes figures for the year 1998-99 for Jammu & Kashmir as no data for the year 1999-2000 was received from SASA.
- ## It includes figures repeated for the year 2010-11 in the State of Maharashtra and 2013-14 in the State of Karnataka
- ### It includes figures repeated for the year 2014-15 in the States of Jammu & Kashmir and Karnataka.
- \$ It includes figures repeated for the year 2010-11 in the State of Maharashtra and figures repeated for the year 2016-17 in the States of Haryana, Karnataka and Madhya Pradesh.

7.4 Details of number of experiments planned under CES during 2017-18 for food and non-food crops are given in **Annexure-I (a)**. It may be seen from the Annex-I(a) that out of total 16,95,660 experiments planned, 14,08,781 (83%) were on food crops and 2,86,879 (17%) on non-food crops (Chart -III). Corresponding shares in cropped area under food and non-food crops which may be seen from **Annexure-V** were 78% and 22% respectively (Chart -IV). If season-wise details are



considered, it may be observed that Kharif crops account for a major share of 9,2,106 (54%) experiments and Rabi crops for 7,75,554 (46%) experiments.

Chart – III

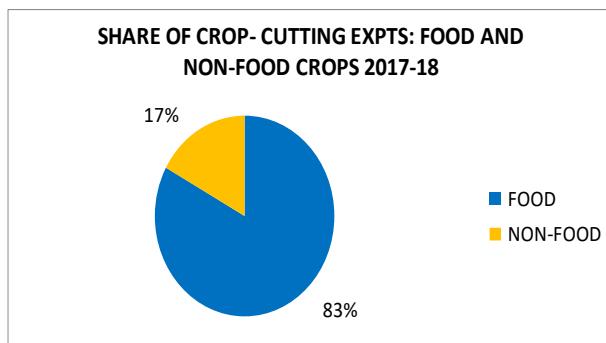
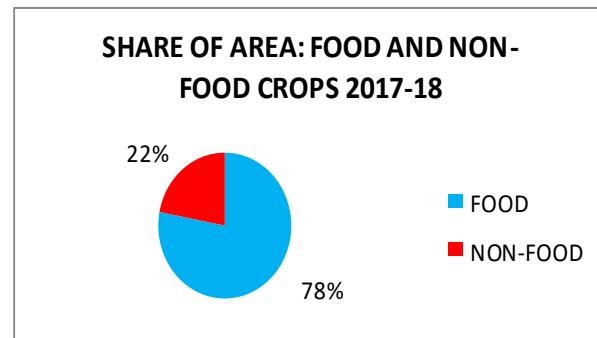


Chart – IV



- 7.5 Fruits and Vegetables form an essential component of human diet. Nineteen important Fruits and Vegetable crops in 13 States were covered under CES (**Appendix-II**) on which information has been presented in this report. It can be seen from the **Table-7** that out of 14,08,781 (83%) experiments for food crops, only 64,785 (4.6 %) experiments were covered under 19 fruits and vegetable crops. Cropping pattern in India is gradually shifting towards Cash crops and Fruits & Vegetables. Adequate efforts should be made by the States to include new crops in GCES based on its importance, relative significance etc. measured in terms of share in all India production. Among fruits and vegetable crops, 15% of the experiments were accounted for fruits and 85% for vegetable crops.

Table –7: Fruits and Vegetables covered under CES during 2017-18

<u>Sl. No.</u>	<u>Fruits</u>	<u>No. of Experiments Planned</u>
1	Lichi	300
2	Banana	3032
3	Mango	2220
4	Guava	280
5	Jackfruit	2038
6	Pineapple	1552
7	Papaya	32
Total		9454



<u>Sl. No.</u>	<u>Vegetables</u>	<u>No. of Experiments Planned</u>
1	Tapioca	1593
2	Cashewnut	1518
3	Potato	36620
4	Onion	5286
5	Brinjal	1830
6	Tomato	3550
7	Cauliflower	340
8	Plantain	1622
9	Avare	1100
10	Tamarind	1592
11	Cabbage	100
12	Beans	180
Total		55331

The Centrally Sponsored Scheme “Crop Estimation Survey on Fruits and Vegetables” which started in the year 1982-83 is no longer in operation. However, considering the importance of Horticulture for the national economy and nutrient security, the Department of Agriculture & Cooperation, Ministry of Agriculture has launched a national level programme on horticulture assessment and development, called CHAMAN (Coordinated Horticulture Assessment and Management using geo-informatics) from September, 2014. This programme envisages use of satellite remote sensing data for area and production estimation of 7 horticultural crops (Potato, Onion, Tomato, Chili, Mango, Banana and Citrus) in selected districts of major producing States. The programme also uses GIS (Geographical Information System) tools along with remote sensing data for generating action plans for horticultural development (site suitability, infrastructure development, crop intensification, orchard rejuvenation, aqua- horticulture, etc.). Another component of CHAMAN is to carry out research activities on horticultural crop condition studies, diseases assessment and precision farming. Two National Level Agencies have been identified for implementing this



programme i.e. Mahalanobis National Crop Forecast Centre (MNCFC) of Department of Agriculture & Cooperation for the remote sensing component and the Indian Agricultural Statistical Research Institute (IASRI) for the field survey component. The programme is being jointly implemented through Space Applications Centre, Ahmedabad; National Remote Sensing Centre, Hyderabad; State Horticulture Departments; State Remote Sensing Centres, National Horticulture Research & Development Foundation, Nasik; India Meteorological Department and ICAR Centres.

- 7.6 The States of Uttar Pradesh (15%), Maharashtra (10%), Madhya Pradesh (13%), Bihar (7%) and Rajasthan (6%) have accounted for more than 51 percent of the gross cropped area (Chart-V). However, the distribution of experiments over States/UTs reveals that more than 75 percent of the experiments were planned in Uttar Pradesh (38%), Karnataka (8%), Bihar (6%), Gujarat (9%) and Rajasthan (14%) (Chart-VI).

* Figures for experiments planned are obtained from Annexure V.



Chart – V

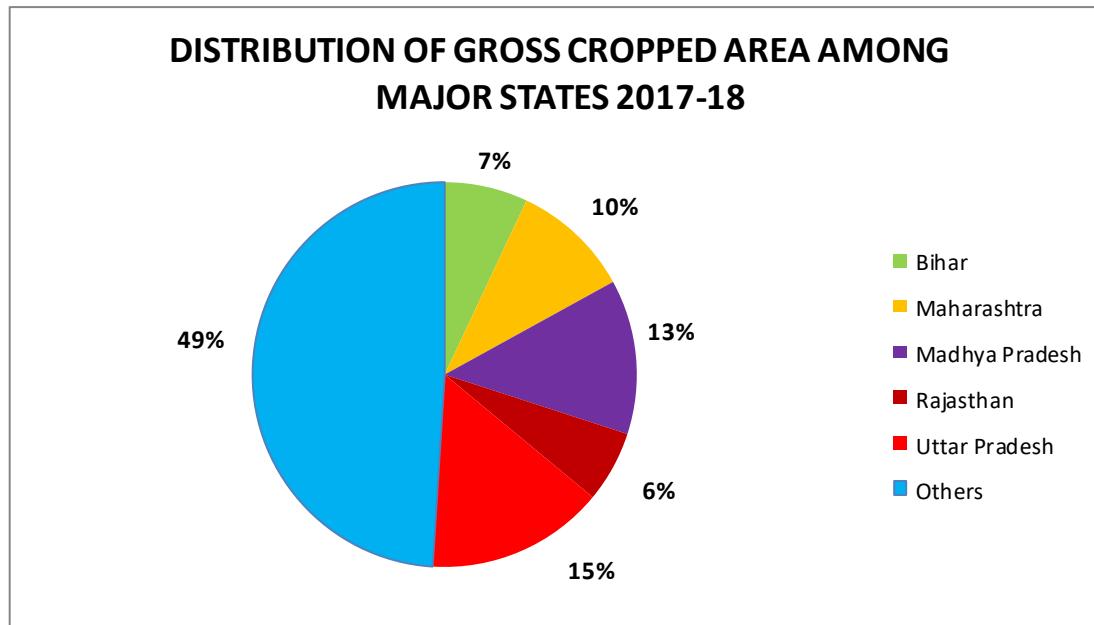
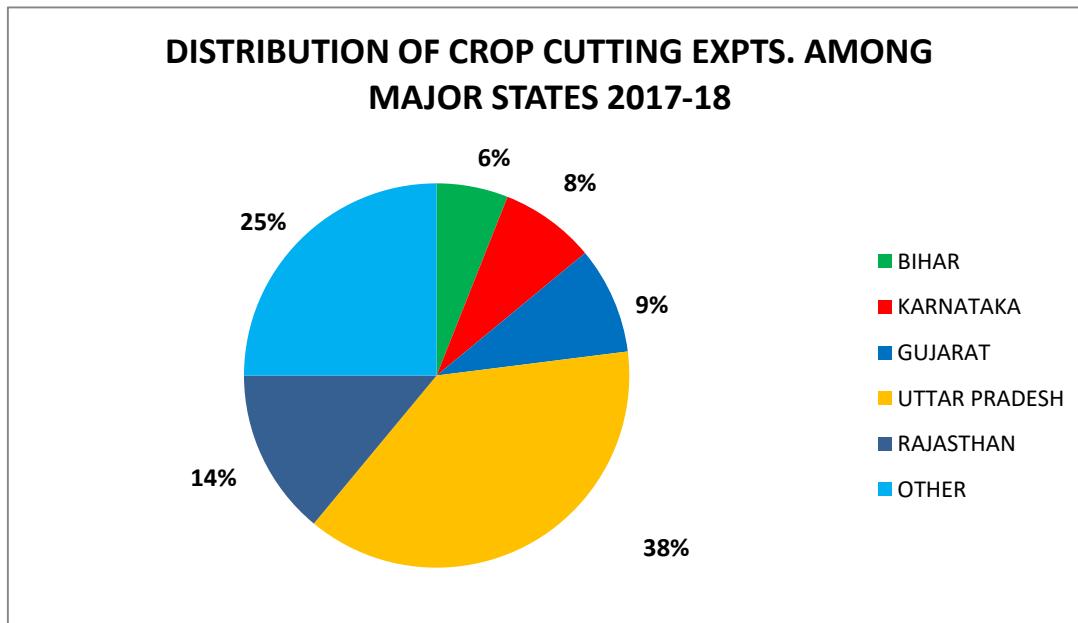


Chart – VI





7.7 **Table-8** shows increase of 50,143 experiments during 2017-18 due to increase in number of experiments planned for a number of crops in the States of Andhra Pradesh, Chhattisgarh, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Puducherry, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and Uttarakhand. The total number of experiments planned decreased by 2,285 due to decrease in experiments planned in the States of Bihar, Gujarat, Meghalaya, Odisha, Punjab and Dadar & Nagar Haveli. This shows net increase of experiments in the States is 47,858 during 2017-18 over 2016-17. There was no change in planning in the States of Assam and Daman & Diu whereas for the States of Haryana, Jharkhand, Madhya Pradesh and West Bengal information was not received.

Table-8: Comparison of number of experiments planned during 2017-18 and 2016-17

States showing increase in experiments planned	No. of experiments planned			States showing decrease in experiments planned	No. of experiments planned		
	2016-17	2017-18	Net increase over previous year		2016-17	2017-18	Net decrease over previous year
Andhra Pradesh	22700	23010	310	Bihar	97970	97858	-112
Chhattisgarh	5986	6686	700	Gujarat	155139	154146	-993
Goa	690	1050	360	Meghalaya	2080	2038	-42
Himachal Pradesh	6046	8294	2248	Odisha	48489	47431	-1058
Jammu & Kashmir	5546	5580	34	Punjab	6976	6952	-24
Karnataka @	118730	139636	20906	Dadar & Nagar Haveli	156	100	-56
Kerala	28384	32779	4395				
Maharashtra	81788	82520	732				
Puducherry	290	308	18				Total -2285
Rajasthan	233510	237590	4080				
Tamil Nadu	9276	9500	224				
Telangana	14162	15924	1762				
Uttar Pradesh	628240	642604	14364				
Uttarakhand	8312	8322	10				
	Total		50133				

#: - The data pertaining to Karnataka for 2017-18 and 2016-17 correspondent to 1 year prior to the year mentioned.

*: - CES data in respect of newly formed State Telangana was received first time from year 2016-17.

7.8 **Annexes-I(b) and I(c)** give the State-wise details of experiments planned for food crops during Kharif and Rabi, 2017-18 respectively and **Annexures-1(d) and 1(e)** give similar details for non-food crops. Summary of details are presented in **Table-9 & Table-10**. On examination of these tables, it can be concluded that except for Bajra, Jowar, Red Gram, and Blackgram the representation of remaining 8 main crops has decreased in percentage terms as compared to previous year.



Table – 9: Details of experiments planned on Food and Non- Food Crops during 2017-18

S. No.	Particulars	No. of Expts.	Percentage
A. FOOD CROPS		1408781	83.08
1	Cereals	1040948	61.39
2	Pulses & beans	243654	14.37
3	Small Millets	3450	0.20
4	Sugar & Cocoa	25793	1.52
5	Condiments & Spices	30151	1.78
6	Fruits & Vegetables	64785	3.82
B. NON-FOOD CROPS		286879	16.92
1	Oil Seeds	221984	13.09
2	Fiber Crops	58390	3.44
3	Drugs & Narcotics	6505	0.38
TOTAL		1695660	100

Table- 10: Distribution of experiments planned for Main Crops during 2017-18

Sl. No.	Crop	No. of Expts.	% to Total Expts.	Prev. year % to Total Expts.
1.	Paddy	385654	22.74	22.98
2.	Wheat	399917	23.58	24.22
3.	Maize	90508	5.34	5.37
4.	R & M	82129	4.84	4.92
5.	Bajra	88563	5.22	4.99
6.	Gram	65157	3.84	3.91
7.	Jowar	52162	3.08	2.89
8.	Redgram	36896	2.18	1.94
9.	Groundnut	61913	3.65	3.75
10.	Blackgram	33963	2.00	1.99
11.	Sugarcane	25000	1.47	1.61
12.	Sesamum	30952	1.83	1.88

7.9 **Annexure-V** also provide information on the percentage of area covered under CES to the total area in the CES States. Crop-wise summary for main crops is presented in **Table-11**, which indicates that the area covered under CES for food and non-food crops was substantial. However, there exists a need for extending CES in different States to cover important pulses, oil seeds and cash crops. The issue of extending the scope of the CES to encompass important crops which are not covered at present needs attention of the concerned States/UTs. Distribution of area and experiments by category of crops are presented in **Chart-VII** and **Chart-VIII** respectively.



Table – 11: Percentage of area covered under CES during 2017-18

Sl. No.	Crop	%age of area covered by CES to total area under the crop in the States covered
1.	Paddy (Kharif)	88
	Paddy (Rabi / Sum.)	90
2.	Jowar (Kharif)	90
	Jowar (Rabi / Sum.)	21
3.	Bajra (Kharif & Rabi / Sum.)	87
4.	Maize (Kharif)	88
	Maize (Rabi / Sum.)	72
5.	Ragi (Kharif & Rabi / Sum.)	90
6.	Wheat	94
7.	Barley	89
8.	Gram	96
9.	Redgram/Tur (Kharif&Rabi)	91
10.	Sugarcane	89
11.	Sunflower (Kharif)	99
	Sunflower (Rabi / Sum.)	28
12.	Groundnut (Kharif)	98
	Groundnut (Rabi / Sum.)	82
13.	Sesamum(Kharif& Rabi/Sum.)	93
14.	Castor	93
15.	Rape & Mustard	93
16.	Linseed	87
17.	Safflower	94
18,	Coconut	30
19.	Niger	68
20.	Cotton	49
21.	Jute	99
22.	Mesta	97
23.	Tobacco	85



CROP ESTIMATION SURVEY

Chart-VII

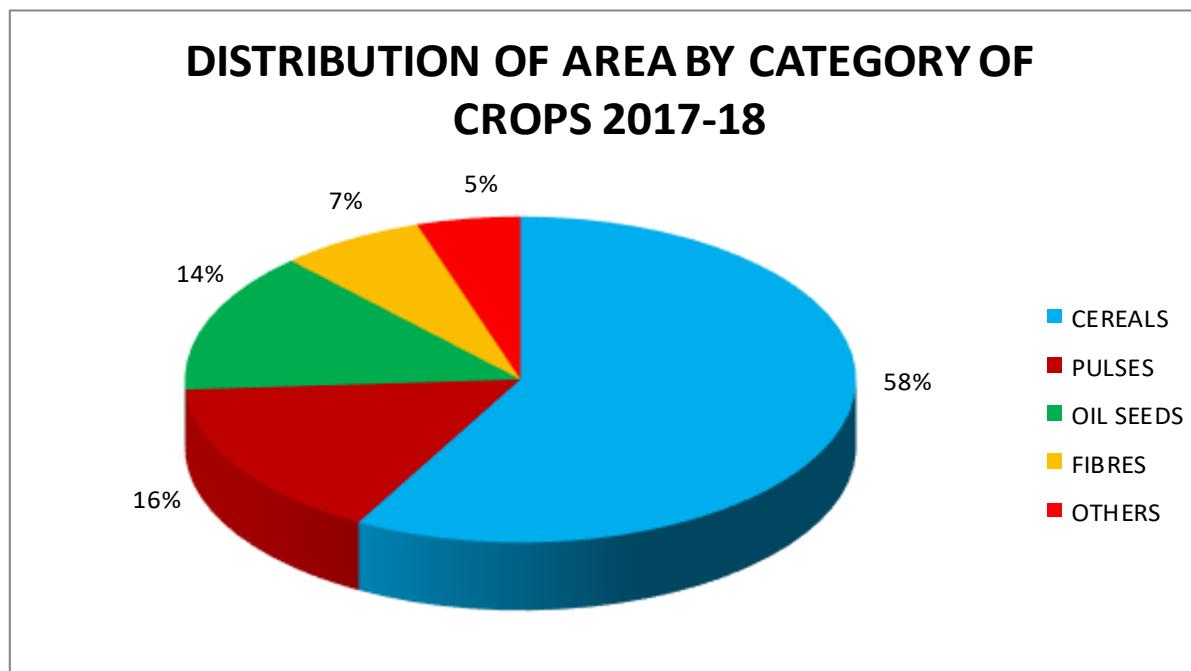
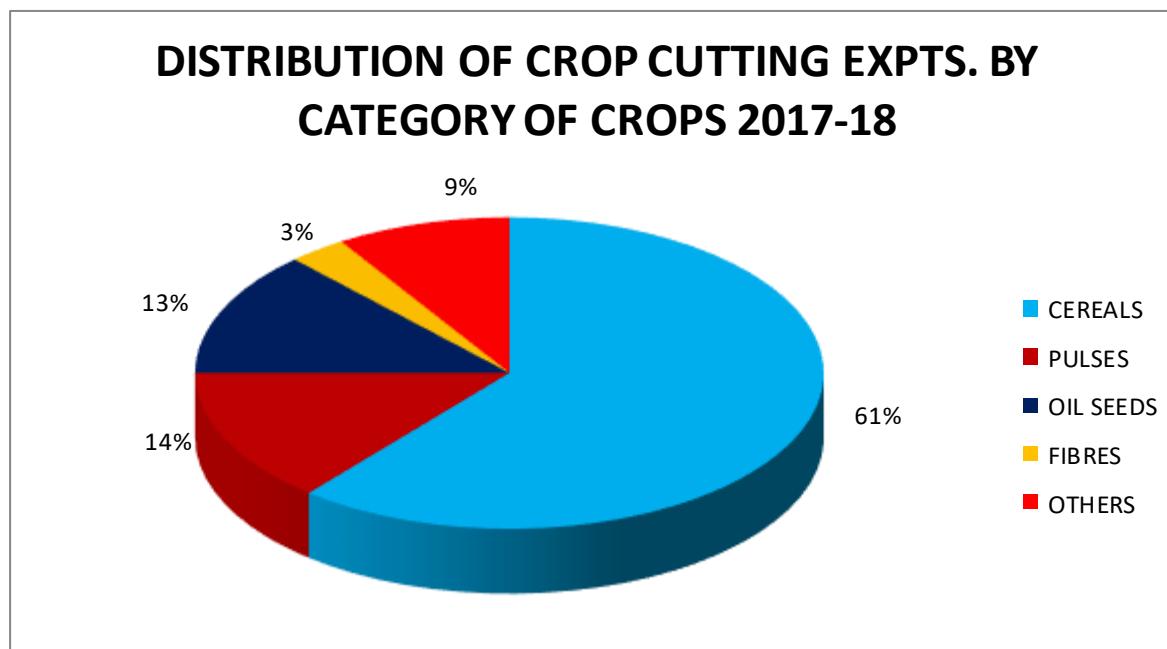


Chart- VIII





TRAINING

8

- 8.1 A programme for imparting training to primary workers engaged in the conduct of crop cutting experiments under CES is held in each State by respective agencies (**Annex-II**) at the beginning of each season/year. In Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Maharashtra, Punjab, Rajasthan, Uttar Pradesh and Puducherry, the training was held in the beginning of each crop season and in other States, it was held at the commencement of the agricultural year 2017-18. NSSO officials also participated in the training programmes either as trainers or as observers.
- 8.2 **Annexure-II** shows the agency-wise details of the number of training centres, number of primary workers who attended the training and the extent of NSSO participation in the training programmes in the year 2017-18. During the year, training was organised in 1948 centres. It is pleasing to note that States: Assam, Goa, Gujarat (Agriculture), Maharashtra (Zilla Parishad) recorded cent percent attendance of their primary staff. However, at All India level, 79179 out of 81568 primary workers were called for training and 68079 attended the training camps resulting in 86% attendance in CES training camps. States where the attendance of primary workers of various agencies was less than the All-India average were Bihar (Agriculture), Chhattisgarh (Agriculture/Statistical), Himachal Pradesh (Agriculture in Kharif, Rabi), Maharashtra (all agencies except Zilla Parishad in Rabi season), Uttarakhand (Revenue) Uttar Pradesh (Revenue in Kharif & Zaid). It is essential that all the staff engaged in the conduct of crop cutting experiments is fully familiar with the technical aspects, the methodology and operational procedures relevant to the conduct of the experiments. Conduct of experiments by untrained personnel would introduce subjectivity and result in generation of unreliable data. To obviate this, the feasibility of arranging separate training for absentees subsequently needs to be explored.
- 8.3 During 2017-18, the officers of NSSO (FOD) posted in different States associated themselves with the training programmes, either as trainers or observers in all the States except in Andhra Pradesh, Bihar, Goa, Gujarat, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Tamil Nadu, Telangana, Uttarakhand, West Bengal, Dadra & Nagar Haveli and Daman & Diu. In all, out of the 1948 training centers, NSSO officials participated in 872 (44.76%) centers as observers and imparted training in 134 (6.87 %) centers.



SUPERVISION

9

- 9.1 Supervision of field work is an essential part of any large-scale sample survey for ensuring quality of data collected. NSSO (FOD) was instrumental in the creation of institutional framework through the Land Utilization Surveys (LUS) and CES (Crop Estimation Surveys) as large scale sample surveys by NSS during the 1950s. This acted as a hand holding exercise and inspired many State Governments to create and develop a Modular Statistical System at State level in sync with agrarian practices, needs and heterogeneity. Later on, the launch of Improvement in Crop Statistics (ICS) in 1973-74, resulted in dovetailing of TRS/EARAS and GCES schemes of Union Ministry of Agriculture and State/UT governments respectively. This ushered coterminous supervision by the State Supervisory officials apart from NSSO (FOD) officers for collection of crop statistics by the primary workers of the State Government. A threefold approach is adopted in the States for supervision of crop cutting experiments planned under CES. This includes the following:-
- (i) Supervision by the statistical staff of State Agricultural Statistics Authorities (SASA),
 - (ii) Supervision by the Departmental staff i.e. by the supervisory officers of the Departments whose workers are responsible for the conduct of crop cutting experiments in the field and
 - (iii) Supervision by the Technical personnel of the NSSO (FOD).
- 9.2 In the States of Andhra Pradesh, Assam, Meghalaya, Odisha and the UT of Puducherry, the field work and supervision were done only by the Statistical Department. In the case of Himachal Pradesh and Union Territory of Dadra & Nagar Haveli, though there are other supervisory agencies, the supervision was done by the State Statistical Departments only. Currently, the Scheme for Improvement of Crop Statistics (ICS) commenced from the year 1973-74 (Rabi) is operational in 21 States and 1 Union Territory. During the year 2017-18, total numbers of experiments planned for sample check under the ICS Scheme were 15,662 each for the Central and State samples during Kharif, Rabi and Summer seasons.



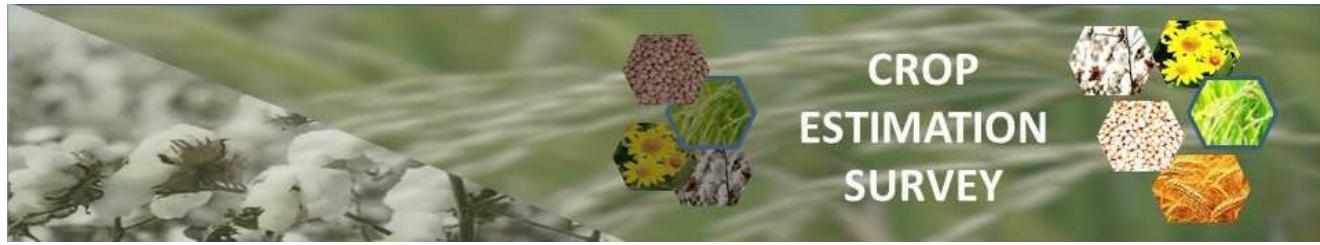
9.3 **Annexure-III (a)** shows State-wise total number of experiments planned under CES, number of experiments inspected by each agency and breakup of these supervisory checks for Kharif and Rabi seasons according to food and non-food crops. **Annexure-III (b)** gives crop-wise details of experiments supervised by each agency in a State. Summary of details of supervision at All India level is given in **Table -12**.

Table –12: Supervision of crop cutting experiments during 2017-18

Item	No. of expts. Planned	No. of Experiments Supervised by					
		State Statistical Department		Other State Departments		NSSO	
1	2	3	4	5	6	7	8
Kharif							
Food Crops	751071	29101 (4)	22710 (3)	117075 (16)	88980 (12)	7109 (1)	6949 (1)
Non-Food Crops	165287	9471 (6)	7519 (5)	35651 (22)	27935 (17)	1951 (1)	1910 (1)
Combined	916358	38842 (4)	30229 (3)	152726 (17)	116915 (13)	9060 (1)	8859 (1)
Rabi							
Food Crops	657710	13263 (2)	13062 (2)	57190 (9)	56989 (9)	4517 (1)	4286 (1)
Non-Food Crops	121592	5107 (4)	4394 (4)	23512 (19)	23470 (19)	1010 (1)	908 (1)
Combined	779302	18370 (2)	17456 (2)	80702 (10)	80459 (10)	5527 (1)	5194 (1)
TOTAL (Percentage)	1695660	57212 (3)	47685 (3)	233428 (14)	197374 (12)	14587 (1)	14053 (1)

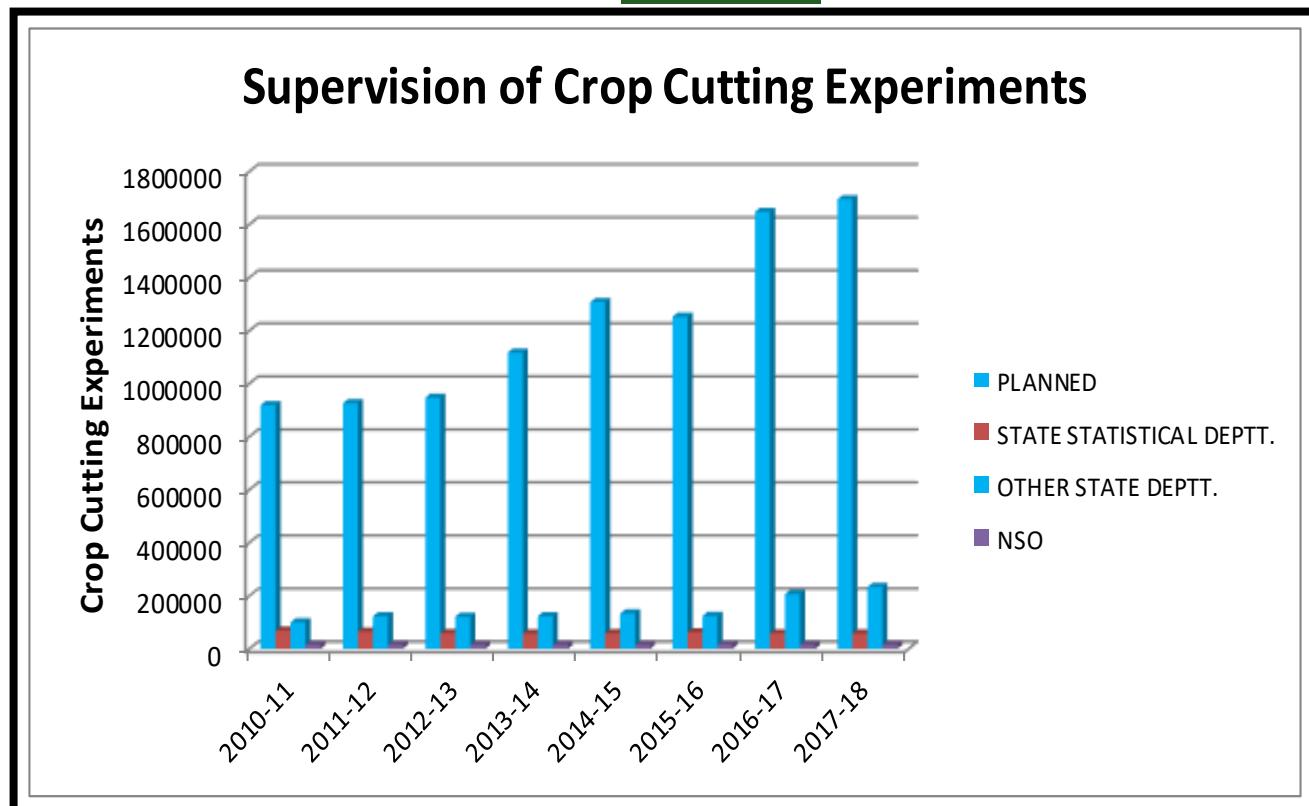
* Total Percentages have been calculated by including only those States from which complete data was received.

During 2017-18, about 18% of the total experiments planned were supervised, out of which 3 percent were supervised by the State Statistical Department, 14 percent by other State Departments and 1 percent by NSSO. However, the supervision was conducted at harvest stage in approximately 85% cases. It may also be observed from the State-wise position as given in **Annexure-III (a)** that the total supervision by State Statistical Department was above 25



percent in the States Kerala, Tamil Nadu, and Union Territories of Dadra & Nagar Haveli, Daman & Diu and Puducherry and was below 10 percent in the States of Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Goa, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Meghalaya, Punjab, Rajasthan, Uttarakhand and West Bengal. Total supervision by other State Departments was above 25 percent in case of Madhya Pradesh, Odisha, Rajasthan, Dadar & Nagar Haveli and Daman & Diu. The same was below 10 percent in the States of Bihar, Gujarat, Himachal Pradesh, Meghalaya, Tamil Nadu and West Bengal. Total supervision by NSSO officers in individual States varied from 0.3 percent in Jharkhand to 10 percent in Punjab and Puducherry. Above details are summarised in the following Bar diagram (Chart-IX). Inspection plays an integral part in the improvement of data collection of data and requires due attention of the supervisory officers. No information regarding the supervision by State agencies has been received from Maharashtra and Uttar Pradesh although the supervisory agencies are in existence.

Chart – IX





9.4 **Annex-III (a)** also gives the breakup of experiments supervised during the two major seasons. It is seen that the supervision was well distributed between both the seasons as well as over food and non-food crops. Crop-wise details of supervision given in **Annex-III (b)** are summarised in **Table-13**. It is seen that at All India level, the total supervision (adding up figures for all the concerned departments) varied between 10 and 47 percent for important crops like Paddy, Jowar, Bajra, Maize, Ragi, Wheat, Barley, Groundnut, Sesamum, Cotton and Jute, and in the range of 18 to 38 percent for crops like Gram, other Pulses and Beans, Small Millets, Condiments & Spices, Linseed, Castor, Rape & Mustard and other Oilseeds. For other crops like Sugars, Drugs & Narcotics, Fruits & Vegetables and Mesta, the supervision was in the range of 1 to 36 percent, which needs improvement. It is evident from the data presented that there is a need to increase the level of supervision for the crops by all the related departments. This will definitely have a lasting effect on the improvement of the quality of data collected in the field.



Table-13: Crop- wise percentage of experiments supervised during 2017-18

Crop	Percentage of Experiments supervised by								
	State Statistical Deptt		Other State Departments		NSSO		All Deptts		
	Total	At Harvest stage	Total	At Harvest stage	Total	At Harvest stage	Total	At Harvest stage	
1	2	3	4	5	6	7	8	9	
Paddy	4	4	5	4	1	1	10	9	
Jowar	4	4	23	19	1	1	28	24	
Bajra	2	2	27	20	1	1	30	23	
Maize	3	3	16	12	1	1	20	16	
Wheat	1	1	8	8	1	1	10	10	
Barley	3	3	42	42	2	2	47	47	
Gram	2	2	18	18	1	1	21	21	
Other Pluses & Beans	3	3	28	20	1	1	32	24	
Small Millets	9	9	7	7	2	2	18	18	
Sugars	4	2	2	2	2	2	8	6	
Condiments & Spices	11	3	17	17	0	0	28	20	
Fruits & Veg.	5	2	3	3	0	0	8	5	
Ragi	7	7	10	10	1	1	18	18	
Groundnut	8	8	17	15	1	1	26	24	
Sesamum	5	4	17	13	1	1	23	18	
Castor	11	11	9	9	1	1	21	21	
Rape & Mustard	2	2	24	24	1	1	27	27	
Linseed	3	3	17	17	6	6	26	26	
Other Oil Seeds	8	2	29	21	1	1	38	24	
Cotton	3	3	19	15	1	1	23	19	
Jute	11	11	0	0	3	3	14	14	
Mesta	1	1	0	0	0	0	1	1	
Drugs & Narcotics	13	3	23	23	0	0	36	26	

9.5 An idea about the extent of participation by the State Statistical and the NSSO officials under the Scheme for Improvement of Crop Statistics (ICS) by way of association in the sample check on crop cutting experiments may be taken from the details presented in **Table-14**. It is seen that a total of



22580 (1.53%) experiments out of the 14,47,964 experiments planned (for the crops covered under ICS) were spot checked at harvest stage either by Central or State agencies during 2017-18 as against 23178 (1.73%) experiments out of 14,45,904 experiments planned during 2016-17. Details of Crop-wise allocation of number of experiments under ICS implementing States are presented in **Appendix VII**. The sample checks are undertaken by the supervisory staff of NSSO (FOD) and State Govts. on matching basis in two non-overlapping samples.

Table -14: Supervision under ICS scheme during 2017-18

Sl. No.	State	Number of Experiments			Percentage of Supervision under ICS at harvest stage	
		Planned under CES (for important crops covered under ICS)	Supervised under ICS at harvest stage by	Total	Central Staff	State Staff
1	2	3	4	5	6	7
1.	Andhra Pradesh	15766	662	676	1338	8.49
2.	Assam	11250	423	364	787	7.00
3.	Bihar	88462	613	349	962	1.09
4.	Chhattisgarh	5312	350	312	662	12.46
5.	Gujarat	123839	783	427	1210	0.98
6.	Haryana	8994	687	658	1345	14.95
7.	Himachal Pradesh	8294	231	234	465	5.61
8.	Jammu & Kashmir	4942	276	94	370	7.49
9.	Jharkhand	59790	218	96	314	0.53
10.	Karnataka	102236	551	736	1287	1.26
11.	Kerala	14816	200	200	400	2.70
12.	Madhya Pradesh	28310	1103	770	1873	6.62
13.	Maharashtra	76472	829	601	1430	1.87
14.	Odisha	37863	638	634	1272	3.36
15.	Punjab	6952	348	650	998	14.36
16.	Rajasthan	195050	807	722	1529	0.78
17.	Tamil Nadu	5284	738	715	1453	27.50
18.	Telangana	8450	466	349	815	9.64
19.	Uttarakhand	7028	168	114	282	4.01
20.	Uttar Pradesh	629232	2252	597	2849	0.45
21.	West Bengal	40914	671	208	879	2.15
22.	Puducherry	308	30	30	60	19.48
	All States	1479564	13044	9536	22580	1.53

Note: Important crops include Paddy, Jowar, Bajra, Maize, Ragi, Wheat, Barley, Gram, Tur, Cotton, Jute, Sugarcane, Groundnut and Rape & Mustard.



9.6 Sample checks under ICS scheme are being undertaken since the year 1973-74 to assess the extent to which the prescribed techniques and procedures are adhered to by the State primary workers while conducting the experiments and provide spot guidance, wherever necessary. As detailed in **Annexure III-C**, the efforts of Odisha State are highly praiseworthy in this regard where more than 90% of the experiments conducted were found to be free from any kind of error. The figure of all India reveal that during 2017-18, 58 percent experiments were conducted as per the prescribed procedures. The occurrence of one or more type of discrepancy was observed in the remaining set of analyzed experiments. There exists ample scope for improvement especially with regard to selection of random numbers and locating & marking of plots (e4) in addition to reporting of ancillary particulars like irrigation, varieties of seed, fertilizers/manures (e6). The sample checks revealed that the primary workers assigned with the task of conducting the experiment do not use, in sizeable number of cases (more than All India figures), the equipment supplied for the purpose. This incidence was particularly noticeable in all States of except, Jammu & Kashmir, Odisha, Punjab, Telangana, West Bengal & Puducherry. The tendency to delegate the work of crop cutting experiments to others including untrained workers was observed to be comparatively high (more than All India figures) in case of Andhra Pradesh (Rabi), Bihar (Aut., Rabi & Summer), Gujarat (Rabi), Jammu & Kashmir (Kharif), Jharkhand, Uttar Pradesh, West Bengal(Rabi) during 2017-18. Although these small percentages do not speak for themselves, the damage done to the quality of fieldwork is substantial. Proper arrangements are needed in this regard for ensuring training of the field worker entrusted with CES work especially for those officials who are joining these ranks after the regular training camps are over, or those entrusted with these duties as a stop gap arrangement.



RESPONSE

10

- 10.1 State-wise number of experiments analyzed and percentage response during Kharif and Rabi seasons for food and non - food crops under CES are detailed in **Annex-IV (a)**.
- 10.2 It is commendable to note that CES response rate was cent percent from Kerala, Odisha, Punjab, Telangana, Dadar & Nagar Haveli, Daman Diu & Puducherry. However, in 2017-18, the overall response under CES was 93 percent. Percentage response for food crops during Kharif and Rabi, 2017-18 was 95 % and 93% respectively and for non-food crops, it was 90 % & 84 % respectively. Response was below 90 percent in Assam (81%), Chhattisgarh (72%), Goa (63%), Haryana (89%), Himachal Pradesh (78%), Jammu & Kashmir (73%), Jharkhand (71%), Karnataka (79%) and Madhya Pradesh (85%) **Special measures are needed to improve the percentage of response to more than 90 percent in these States.**
- 10.3 An analysis of non-response was attempted with a view to focus and identify the specific causes leading to non- response, facilitating taking adequate corrective measures. State-wise details of number of experiments that could not be taken up for analysis are given in **Annex-IV (b)**. For all crops taken together, it is seen that 92.8 percent of the total number of experiments planned were analysed. Of the remaining (7.2 percent) experiments, which could not be analysed, 11.7 percent were reported to be lost in the field, 0.2 percent were reported to be rejected at tabulation stage and for 2 percent of experiments, precise reasons for the exclusion were not available.
- 10.4 Out of 11.7 percent experiments lost in the field, no specific reasons had been reported in respect of 9.6 percent experiments while 3.9 percent experiments were lost due to harvesting of the crop by the cultivator prior to the date fixed for the experiments.
- 10.5 At All India level, data for 2 percent of the experiments could not be included for analysis. In Haryana (10.9%) experiments were rejected at the tabulation stage. This is a wastage of manpower, time & financial resources and it demands serious attention of higher authorities. The percentage of experiments lost (in the field + rejected by Statistician) was more than 10 % in the States like Assam (18.6 %), Chhattisgarh (28.3%), Goa (26.61%), Haryana (11.5%), Himachal Pradesh (22.2%), Jammu & Kashmir (26.81%), Jharkhand (28.7%), Karnataka (21.5%) and Madhya Pradesh (14.9 %).



- 10.6 **No reason could be ascribed for exclusion of experiments from analysis in 10.9% of experiments in Haryana.** Non-response is to be kept within the permissible margin and timely remedial measures needs to be taken for exercising adequate checks.
- 10.7 Results of crop cutting experiments for each crop along with the number of experiments planned and analyzed indicating the response achieved during 2017-18 are given in **Annex - V.** **Table-15** shows the crop-wise percentage response at All India level for important crops during 2017-18.

Table-15: Crop - wise percentage response at All India level for important crops under CES 2017-18

Sl.No.	Crop	Response (%)
1	Paddy (Kharif)	96
	Paddy (Rabi / Sum.)	90
2	Jowar (Kharif)	89
	Jowar (Rabi)	91
3	Bajra (Kharif)	96
	Bajra (Sum.)	92
4	Maize (Kharif)	86
	Maize (Rabi / Sum.)	79
5	Ragi (Kharif)	91
	Ragi (Rabi / Sum.)	65
6	Wheat	96
7	Barley	90
8	Gram	86
9	Redgram/Tur	88
10	Sugarcane	93
11	Groundnut (Kharif)	88
	Groundnut (Rabi / Sum.)	84
12	Sesamum (Kharif)	93
	Sesamum (Rabi)	89
13	Castor	92
14	Rape & Mustard	91
15	Linseed	75
16	Cotton	93
17	Jute	86



RESULTS 11

- 11.1 The estimates of average yield rate along with percentage Standard Error are presented in **Annex-V**. The method of estimation followed by the States for working out the average yield rate and its Standard Error (SE) is explained in **Appendix-V**. The trend of area, yield rates and production under important crops during 2012-13 to 2017-18 are presented in **Charts-X to XII** respectively.
- 11.2 The results of CES for 2017-18 reveal that for some crops, response was very low in few States. For instance, it was less than 50 percent in (i) Andhra Pradesh for Soyabean (36%) (ii) Bihar for Rice (Bhadai U.I. 49%, Bhadai IRR 43%, Maize (Rabi 47%), Greengram (Bhadai 40%), Mesta (36%), Jute (46%) (iii) Chhattisgarh for Potato (Rabi 20%), Onion (Rabi 24%), Chillies 15%; (iv) Goa for Groundnut (Kharif 25%), Cowpea (Kharif 18%); (v) Haryana for Sunflower (29%) (vi) Jharkahand for Redgram (42%) (vii) Jammu & Kashmir for Potato (Kharif 28%, Rabi 40%), (viii) Karnataka for Linseed (33%), Sunflower (Rabi 24% & Summer irr. 19%) (ix) Rajasthan for Tarameera (41%) (x) Tamil Nadu for Sunflower (Kharif 4%) and (xi)Uttar Pradesh for Sunflower (Z) (18%). **Such cases of extreme low response affects the reliability of estimates of yield rate.**
- 11.3 Estimates of average yield rates at All India Level for the year 2017-18 and for the previous year for some important crops are given in **Table-16**. These results show that the average yield per hectare during 2017-18 was more than that of previous year for Rice (Rabi/Sum.), Jowar (Kharif, Rabi/ Summer), Maize, Ragi, Gram, Red Gram, Sugarcane, Wheat, Barley, Sesamum, Castor, Rape & Mustard, Linseed, Groundnut (Kharif) and Cotton . In case of Rice Kharif, Bajra, Groundnut (Rabi/Summer) and Jute the average yield has shown decline as compared to the previous year 2016-17.



Table -16: Comparison of CES Yield Rates during 2017-18 and 2016-17

Sl. No.	Crop	Yield rate in (kg/ha.)		Percentage difference
		2017-18	2016-17	
1.	Rice (Kharif)	2678	2768	-3.25
2.	Rice (Rabi/Sum.)	4491	4075	10.21
3.	Jowar (Kharif)	1007	951	5.89
4.	Jowar (Rabi/ Sum.)	864	785	10.06
5.	Bajra (Comb.)	1222	1248	-2.08
6.	Maize (Comb.)	3281	2426	35.24
7.	Ragi (Comb.)	1203	844	42.54
8.	Wheat	3509	3429	2.33
9.	Barley	2810	2761	1.77
10.	Gram	1020	956	6.69
11.	Redgram/Tur	894	570	56.84
12.	Sugarcane	83565	71598	16.71
13.	Groundnut (Kharif)	1857	1303	42.52
14.	Groundnut (Rabi / Sum.)	1863	2152	-13.43
15.	Sesamum (Comb.)	468	448	4.46
16.	Castor	2367	1867	26.78
17.	Rape & Mustard	1390	1334	4.20
18.	Linseed	489	472	3.60
19.	Cotton (Lint)	881	797	10.54
20.	Jute	2605	2606	-0.04

11.4 The dimension of the standard error provides an idea about the precision of the estimate. In an attempt to standardise the measure, generally it is expressed in percentage terms. The percentage standard errors of the estimates of average yield are furnished along with the estimates in **Annex-V**. Standard error was not calculated for any crop in Goa, Gujarat (except Rice Ir. & UI, Redgram, Blackgram, Moth, Garlic, Onion, Groundnut Kh., Cotton Ir & UI and Rape & Mustard), Jammu & Kashmir (except Rice, Wheat and Maize), Jharkhand, Maharashtra, Punjab, Rajasthan and Uttar Pradesh. The standard error was also not calculated in Bihar for Rice, Maize, Ragi, Wheat, Barley, Gram Redgram, Greengram, Lakh, Masur, Sugarcane, Chillies, Lichi, Banana, Mango, Guava, Potato (Agh.), Cauliflower, Onion, Rape & Mustard, Jute and Mesta; Haryana for Gram, Redgram, Sugarcane, Sunflower Rabi and Cotton; Madhya Pradesh for Banana and Papaya; Kerala for Sugarcane, Cocoa, Turmeric, Ginger, Mango, Jackfruit, Cashewnut, Pineapple, Plantain, Sesamum and Betel Leaves.



11.5 Technically, standard errors are associated with efficiency of the estimates and the degree of precision reduces with increase in the standard error. For crop yield, the desirable range of standard error of a good estimate of crop yield at State level is between 0 to 5 percent. It is observed that in a good number of cases, the standard errors were above the desirable limits. The State Governments may consider increasing the sample size of the concerned crops with increased supervision. **Table-17** presents the cases where the standard errors were higher than the desirable range.

Table-17: State-wise crops with high standard error during 2017-18

Sl. No	State	Crop with percentage S.E.
1.	Andhra Pradesh	Jowar Kh. (6.1), Horsegram Kh. (7.1), Sesamum Kh. (5.1) and Sunflower Kh. (5.5)
2.	Bihar	Brinjal Rabi (7.82)
3.	Chhattisgarh	Jowar (35.9), Kodon-Kutki (14.1), Soyabean (15.2), Potato (7.6) and Linseed (5.6)
4.	Gujarat	Rice Kh.UI. (9), Moth (8)
5.	Haryana	Maize (12.6)
6.	Karnataka	Jowar Sum. Hyv Ir. (18.4), Maize Sum. Hyv. (8.1); Ragi Sum. Hyv Ir (7.1); Greengram Rabi (14.3), Blackgram Rabi (11.7), Navane (5.3); Save (17.3); Sugarcane (6.0); Chillies Kh. (8.6), Linseed (10.1), Onion Rabi (8.4) & Summer (8.5), Groundnut Rabi (10.9), Castor (5.1), Sunflower Rabi (14.5), Sum. (12.2), Avare Kh(5.6), Rabi (34.4), Turmeric (7.0), Cotton Rabi (8.7), Potato Kh (6.1), Rabi (7.7), Tomato Rabi (8.25), Summer (15.07), Brinjal Kh (9.21), Cowpea Summer (14.5), Cabbage (16.2), Beans (8.2) and Sesamum Kh (5.9)
8.	Madhya Pradesh	Rice Kh. Hyv Ir. (20.6); Kh. LV Ir. (8.2) and Chillies (29.6)
9.	Maharashtra	Gram (9.9) and Tobacco (6.6).
10.	Odisha	Ragi Sum. (8.8), Wheat Summer (14.0), Maize Winter (10.8), Horsegram Summer (6.4), Sugarcane (5.7), Sesamum Aut. (5.6), Summer (6.1), Groundnut Winter (5.7) and Jute (10.5)
11.	Telangana	Bajra Kh. (14.2), Ragi Kh. (14.1), Sunflower Rabi (5.7), Sesamum Kh (16.7), Korra (13.6), Castor (6.5) and Tobacco V (10.8)
12.	Tamil Nadu	Bajra Kh (6.0), Greengram (5.1), Sesamum Kh (6.3), Rabi (5.3), Sunflower Kh (21.1), Rabi (8.2) and Cowpea Rabi (7.1)
13.	West Bengal	Lakh (8.7), Peas (9), Sugarcane (8.2) and Linseed (27.7)
14.	Dadar & Nagar Haveli	Rice (5.4) and Ragi (54.0)



CROP ESTIMATION SURVEY

Chart - X

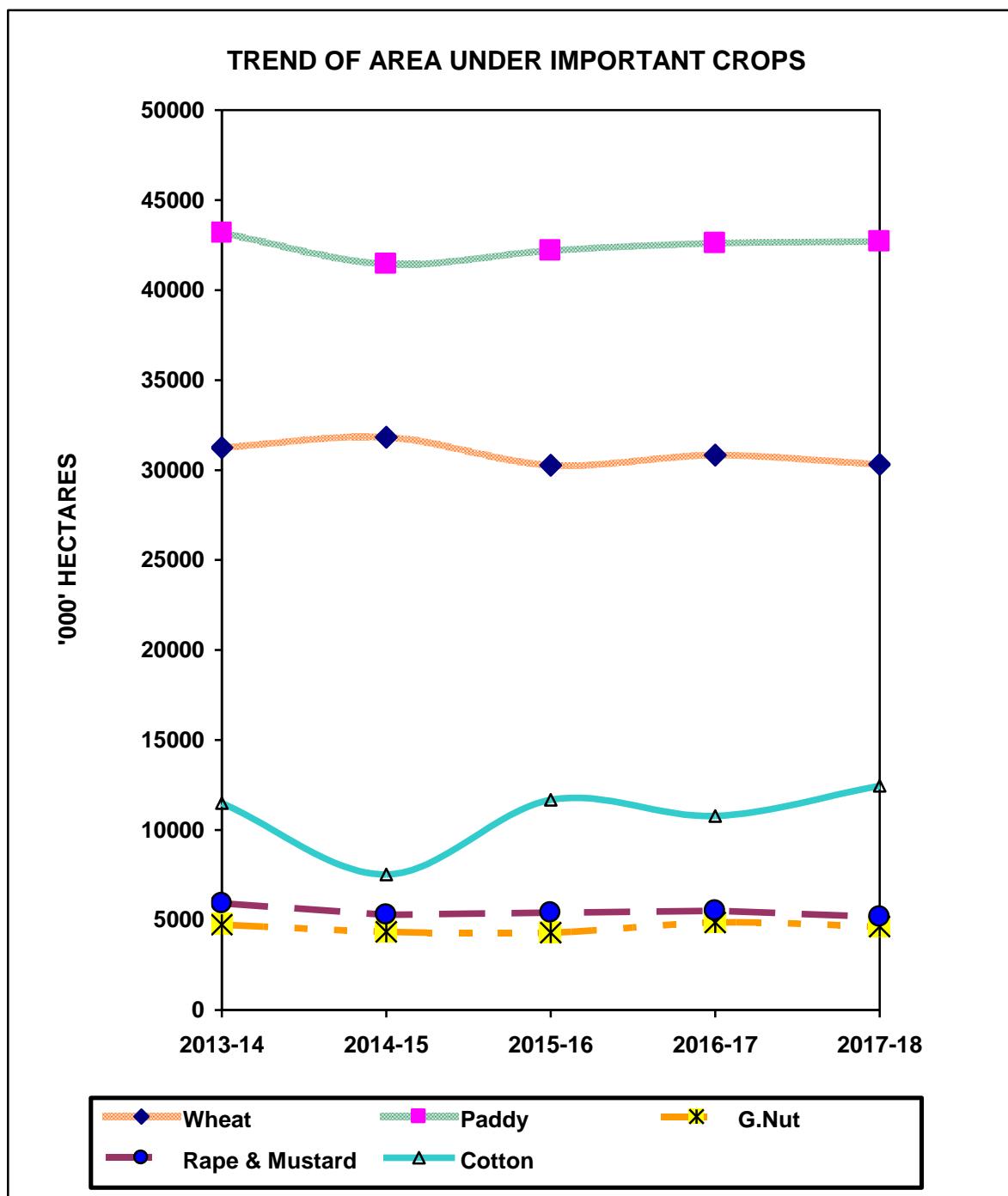




Chart – XI

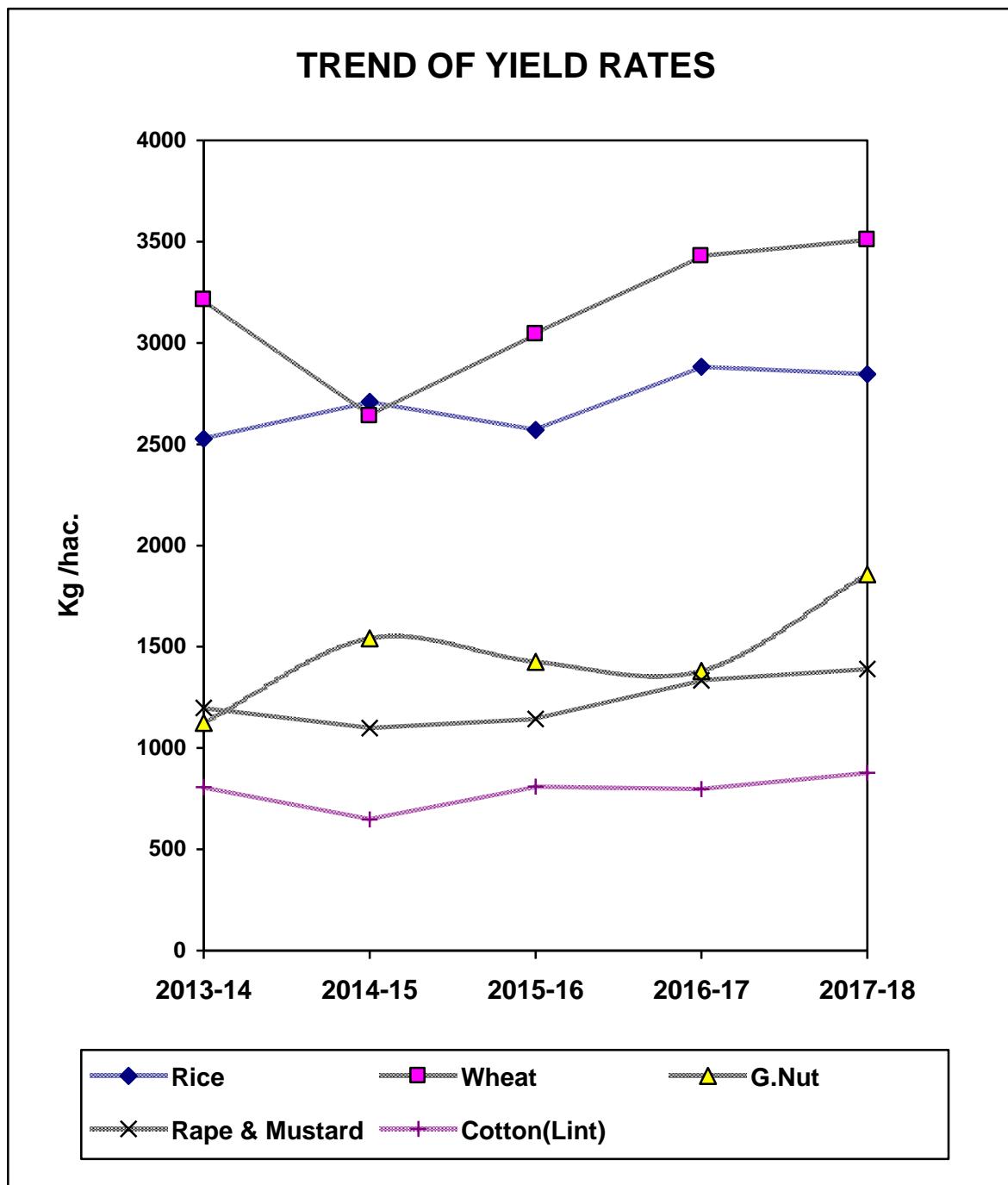
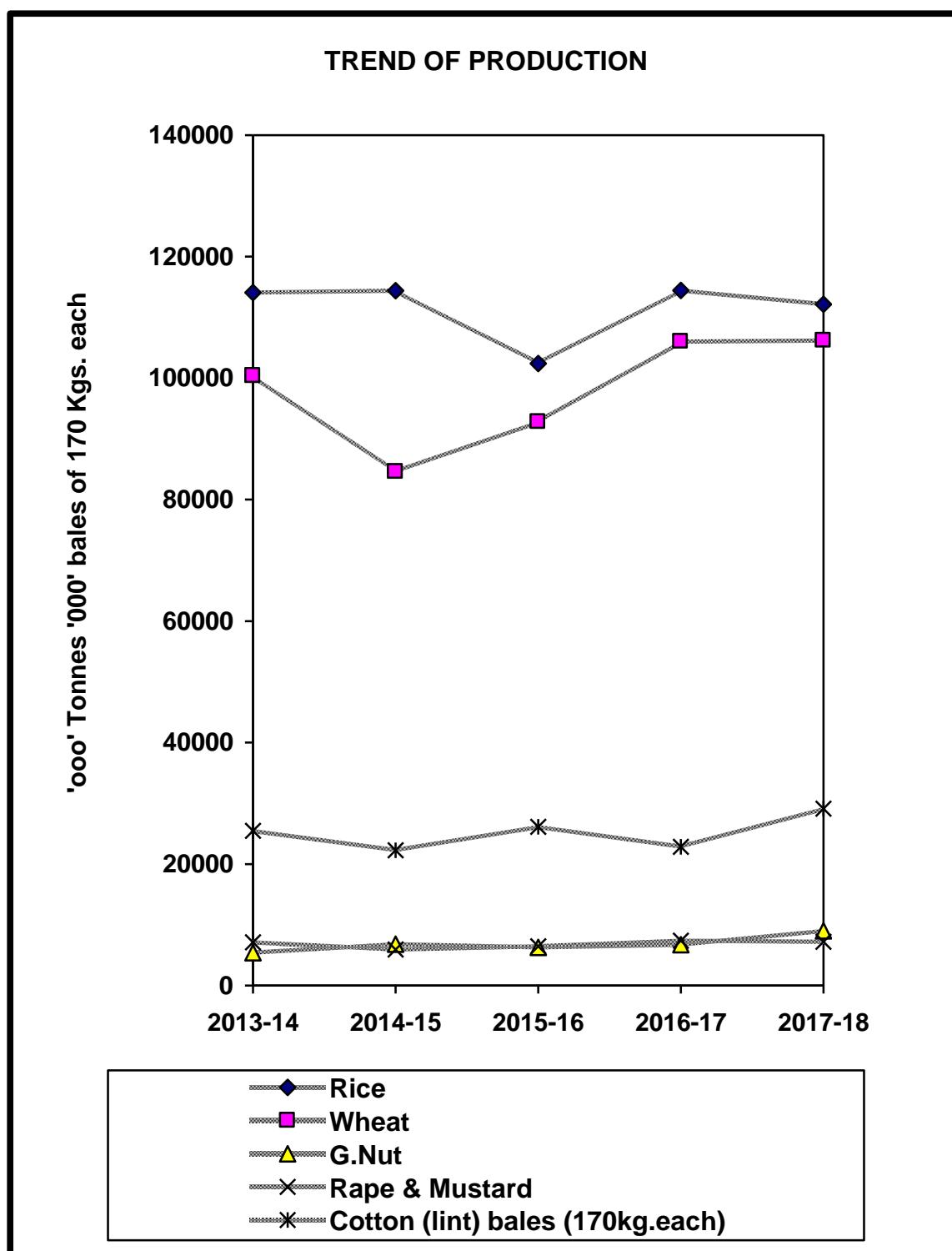




Chart - XII





11.6 Comparison of estimates of crop production for 2017-18 based on the CES results furnished by the States with the corresponding estimates issued by the Directorate of Economics and Statistics (DES), Union Ministry of Agriculture and Co-operation, shows differences in some cases. The details of such cases where the difference between the two estimates is more than 5% in area, production or average yield rate are presented in **Annex–VI**. There may be several reasons for such deviations, some of which are listed as follows:-

- (i) *Non-adoption of survey estimates for preparing official estimates for some crops in the States:* This may be due to the small size of sample adopted for these crops.
- (ii) *Adoption of survey estimates only for part of the State or part of the year (season)*
- (iii) Utilisation of previous year's area figures for official estimates.



ANCILLARY DATA

12

- 12.1 Ancillary information regarding use of inputs such as irrigation, variety of seeds, fertilizers, manures and pesticides etc. are collected in the primary schedule for crop cutting experiments. An analysis of input data by multi-fold classification, providing an idea about the extent of adoption of improved agricultural practices, enables proper appreciation of the observed yield differentials.
- 12.2 In certain States, the sampling design provides for stratification at planning stage itself. The inputs considered for this purpose are irrigation, variety of seed or both for various crops. For these crops, separate estimates of average yield for each category are available as per standard procedure. In cases where pre-stratification is not envisaged, NSSO has been advocating post-stratification analysis of the experiments according to four-fold classification (Irrigated, Un-irrigated, High yielding variety and Local variety) for major crops like Rice, Jowar, Bajra, Maize and Wheat and two-fold classification (Irrigated and Un-irrigated) for other crops. Under the procedure suggested, the estimates of average yield for each category are worked out as simple average at the stratum level and as weighted average at district level using corresponding area as weights. Likewise, the district level estimates are pooled in a similar manner to arrive at State level estimates. It has further been suggested that in the absence of area figures for different categories based on girdawari, TRS estimates of area may be used as weights to work out estimates at district as well as State level.
- 12.3 Preference of area figures over number of experiments adopted earlier as weights has distinct advantages and as such the procedure is being progressively adopted in many States. However, numbers of experiments continue to be used as weights in a large number of cases and as such average yield in such cases may not tally with the averages worked out on the basis of area figures as respective weights. Such cases are listed in **Table-18**.



Table-18: States where number of experiments have been used as weights instead of area for yield calculation during 2017-18

Sl.No.	State	Crop
1.	Assam	All Crops
2.	Himachal Pradesh	All Crops
3.	Madhya Pradesh	All Crops except Rice & Wheat
4.	West Bengal	All Crops

- 12.4 Data according to four-fold classifications for crops of Rice, Jowar, Bajra, Maize and Wheat were not received from States listed below in **Table-19**.

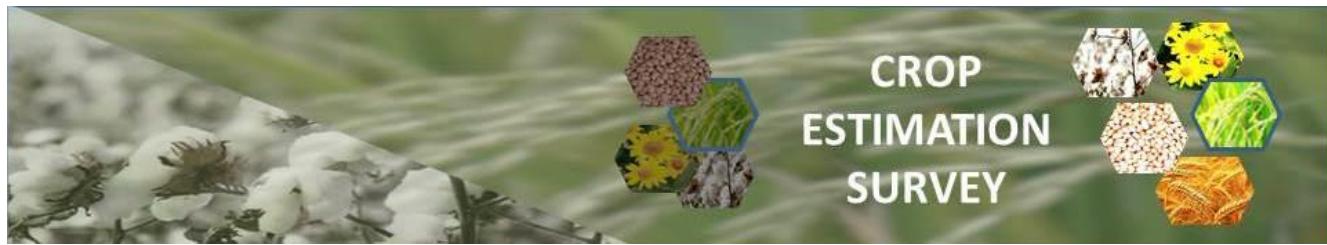
Table-19: Non-receipt of data on four-fold classification during 2017-18

Sl.No.	State	Crop
1.	Gujarat	Rice, Jowar, Bajra, Maize and Wheat
2.	Himachal Pradesh	Rice, Maize, Wheat and Barley
3.	Jharkhand	Rice, Maize and Wheat
4.	Rajasthan	Wheat
5.	Uttar Pradesh	Rice, Jowar, Bajra, Maize and Wheat

- 12.5 On account of operational problems, it is noticed that data as per the two fold classifications i.e. irrigated and un-irrigated, were not received (**Table-20**) from the following States for the crops mentioned against each: -

Table-20: Non-receipt of data on two-fold classification during 2017-18

Sl. No.	State	Crop
1.	Gujarat	All Crops
2.	Jammu & Kashmir	Saffron, Potato, R&M, Linseed.
3..	Jharkhand	All Crops.
4.	Maharashtra	All Crops except Wheat, Jowar, Bajra and Gram..
5.	Kerala	All Crops except Rice.
6.	Rajasthan	All Crops except Rice, Jowar, Bajra, Maize and Cotton.
7.	Uttar Pradesh	All Crops.



- 12.6 Estimates of yield rates calculated separately for irrigated and un-irrigated fields are presented in **Annex-VII**. Yield rates according to four-fold classification for five major crops are detailed in **Annex-VIII**.
- 12.7 Tabulation of CES data based on the extent of area benefited by improved agricultural practices, such as use of improved variety of seed, fertilizers, manures and application of pesticides has been attempted in this report. Information about proportion of area under different agricultural practices as reported by the States is presented in **Annex-IX**. This information has not been received from Gujarat, Himachal Padesh, Jammu & Kashmir, Maharashtra and Uttar Pradesh for all the crops; Jharkhand for Barley; Rajasthan for Wheat, Barley, Gram, Rape & Mustard, Cumin Seed, Linseed, Tarameera, Methi, Masur and Coriander; Kerala for all Crops except Paddy and Madhya Pradesh for Banana & Papaya crops.



DRIAGE EXPERIMENTS 13

- 13.1 The produce which is harvested and weighed at the time of actual conduct of crop cutting experiments is often different from the marketable produce. The results of the Crop Estimation Surveys are presented in terms of the marketable produce. Therefore, determination of driage ratio, ratio of weight of marketable produce to that of the harvested produce is an important stage in the entire process. For this purpose, driage experiments are carried out in all the States. Such experiments are usually conducted in a sub-sample of plots selected for crop cutting experiments. Information enabling adequate insight about the procedure followed for different crops in various States is given in **Appendix-VI**. The details include information on the form of produce harvested for first weighment, the form of marketable produce, procedure for drawing the sub-sample for driage experiments, quantity of produce kept for driage, duration of the driage experiment, level of application of driage ratios, etc.
- 13.2 Results of the driage experiments for different crops, relevant details about the number of experiments planned and analysed, percentage recovery etc., for the year 2017-18 are given in **Annex-X (a)**. The recovery percentage shown in the Annex relates to the State level, although in actual practice, district level recovery percentages are worked out and used for estimating yield rate and production.
- 13.3 In view of the practical difficulties experienced by the field staff in conducting driage experiments, it was considered desirable to examine if the driage experiments could be conducted at a central place. Exploratory studies conclusively established the feasibility of arranging driage experiments at a Central place and accordingly, central driage experiments were conducted as a part of the programme of supervision of CES in the State from 1960-61 to 1971-72. State Governments were also requested to arrange driage experiments at a few selected centres in the CES series of crop cutting experiments.



The results of the driage experiments are not being received from the States regularly. The results for Central driage experiments for 2017-18 were received only from Assam, Karnataka, Odisha and Rajasthan. These results are presented in **Annex-X (b)**. It may be noted that in Assam, Karnataka and Odisha, field driage experiments are not conducted for the crops for which central driage experiments are planned and driage ratios used for CES results of these crops are based on Central driage experiments. Only in Rajasthan, Central driage experiments are still planned along with field driage experiments. Column (7) of **Annex-X (b)** shows the recovery percentage according to field driage experiments only for one State viz., Rajasthan in 2017-18. In Rajasthan, it is seen that loss in driage as per central driage is less for all crops except Gram from field driage.

- 13.4 As it can be seen from the procedure of conducting driage experiments that various resources have to be engaged, the experimental results are to be observed on several days and then the driage factor is to be calculated. This procedure also leads to wastage of grains etc. Instead of the conventional procedure of the driage experiments, moisture meter may be used to obtain the driage ratio. Moisture meter is an instrument to measure the moisture content in the grains from which the driage ratio can be calculated. The instrument was used by Govt. of Uttar Pradesh and the results obtained were compared with those of the conventional method. It was observed that the driage ratios obtained by the two methods were comparable. Other States may also start using moisture meter for calculating the driage ratio.

(Annexures &

Appendices)



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ABBREVIATIONS USED IN ANNEXURES & APPENDICES

Agh.	Aghani
Agril.	Agricultural
Aut.	Autumn
Bha.	Bhadai
CAD	Command Area Development
CD	Cane Development
CES	Crop Estimation Surveys
Comb.	Combined
Comp.	Composite
Dev.	Development
E.	Early
Expts.	Experiments
F.C.	Food - Crops
Gar.	Garma
H	Hills
Ha.	Hectares
Hyv.	High Yielding Variety
Ir.	Irrigated
Kgs.	Kilograms
Kh	Kharif
Lv.	Local Variety
M x M	Meter x Meter
N.	Natu
NA	Not Available
NC	Not Collected/ Compiled
K/K/S	Kar/ Kuruvai / Sornavari
S/T/P	Samba/ Thalady/ Pishanam
N/K	Navarai / Kodai
NFC	Non Food Crops
NR.	Not Received
Plt.	Plant
Pln.	Plain
Reg.	Regular
Rt.	Ratoon
SASA	State Agricultural Statistics Authority
Stat.	Statistical
Sum.	Summer
Tra.	Traditional
V	Virginia
UI	Un- irrigated
Wint.	Winter
NAIS	National Agricultural Insurance Scheme
VIS	Village Insurance Scheme

ANNEX-I (a) : SAMPLE SIZE-TOTAL NUMBER OF EXPERIMENTS PLANNED UNDER CES DURING 2017-18

Sl. No.	S T A T E	Number of experiments planned under CES during								
		K H A R I F			R A B I			T O T A L		
		Food Crops	Non-Food Crops	Total	Food Crops	Non-Food Crops	Total	Food Crops	Non-Food Crops	Total
1	2	3	4	5	6	7	8	9	10	11
1.	Andhra Pradesh	9036	4536	13572	7236	2202	9438	16272	6738	23010
2.	Assam	5700	600	6300	3700	1250	4950	9400	1850	11250
3.	Bihar	45561	400	45961	50833	1064	51897	96394	1464	97858
4.	Chhattisgarh	3346	622	3968	2026	692	2718	5372	1314	6686
5.	Goa	510	80	590	380	80	460	890	160	1050
6.	Gujarat	25665	50760	76425	69622	8099	77721	95287	58859	154146
7.	Haryana *	4096	940	5036	3278	1270	4548	7374	2210	9584
8.	Himachal Pradesh	4468	0	4468	3826	0	3826	8294	0	8294
9.	Jammu & Kashmir	3180	0	3180	2140	260	2400	5320	260	5580
10.	Jharkhand @	28770	0	28770	36210	7830	44040	64980	7830	72810
11.	Karnataka	65830	20940	86770	39998	12868	52866	105828	33808	139636
12.	Kerala	27872	2524	30396	1678	705	2383	29550	3229	32779
13.	Madhya Pradesh #	9268	6166	15434	13240	2036	15276	22508	8202	30710
14.	Maharashtra	37962	18228	56190	22988	3342	26330	60950	21570	82520
15.	Meghalaya	1674	52	1726	312	0	312	1986	52	2038
16.	Odisha	36147	1981	38128	6098	3205	9303	42245	5186	47431
17.	Punjab	3034	680	3714	2672	566	3238	5706	1246	6952
18.	Rajasthan	102710	27568	130278	71352	35960	107312	174062	63528	237590
19.	Tamil Nadu	4168	1584	5752	2572	1176	3748	6740	2760	9500
20.	Telangana	6570	2368	8938	5482	1504	6986	12052	3872	15924
21.	Uttarakhand	4692	0	4692	3630	0	3630	8322	0	8322
22.	Uttar Pradesh	303154	22126	325280	288828	28496	317324	591982	50622	642604
23.	West Bengal *	17432	3132	20564	19399	8987	28386	36831	12119	48950
24.	Dadra & Nagar Haveli	100	0	100	0	0	0	100	0	100
25.	Daman & Diu	28	0	28	0	0	0	28	0	28
26.	Puducherry	98	0	98	210	0	210	308	0	308
GRAND TOTAL		751071	165287	916358	657710	121592	779302	1408781	286879	1695660

Note :

1. # : Figure repeated for the year 2013-14 in respect for crops Banana, Onion and Papaya and all other crop 2015-16 for Madhya Pradesh.
2. @ : Data repeated from the year 2016-17.
3. * : Data repeated from the year 2015-16

ANNEX -I (b): SAMPLE SIZE - KHARIF FOOD CROPS UNDER CES DURING 2017-18

Sl. No.	S T A T E	Number of Experiments Planned under the crops										Total	
		Paddy	Jowar	Bajra	Maize	Ragi	Red-gram	Green-gram	Black-gram	Sugarca	Others		
1	2	3	4	5	6	7	8	9	10	11	12	13	
1.	Andhra Pradesh	REG. Ir.	3576	0	0	0	0	0	0	0	0	0	
		REG.	0	0	0	0	0	0	0	0	0	0	
		REG. UI	228	0	0	0	0	0	0	0	0	0	
		Total	3804	178	488	234	200	1148	348	310	1602	724	9036
2.	Assam	Aut.	2000	0	0	0	0	0	0	700	0	0	
		Wint.	3000	0	0	0	0	0	0	0	0	0	
		Total	5000	0	0	0	0	0	0	700	0	5700	
3.	Bihar	Bha.Hyv.	0	0	0	560	0	0	0	0	0	0	
		Bha.Lv.	0	0	0	700	0	0	0	0	0	0	
		Bha.Ir.	560	0	0	0	0	0	0	0	0	0	
		Bha.UI.	392	0	0	0	0	0	0	0	0	0	
		Bha.	0	0	0	0	224	0	240	0	0	0	
		Agh.Hyv.Ir.	23280	0	0	0	0	0	0	0	0	0	
		Agh.Hyv.UI.	5880	0	0	0	0	0	0	0	0	0	
		Agh.Lv.Ir.	10345	0	0	0	0	0	0	0	0	0	
		Agh.Lv.UI.	1760	0	0	0	0	0	0	0	0	0	
		Total	42217	0	0	1260	224	0	240	0	800	820	45561
4.	Chhattisgarh	Ir. Hyv.	620	0	0	0	0	0	0	0	0	0	
		Ir.Lv.	442	0	0	0	0	0	0	0	0	0	
		UI.	964	0	0	0	0	0	0	0	0	0	
		Total	2026	70	0	468	0	494	0	0	0	288	3346
5.	Goa		190	0	0	0	0	0	0	0	130	190	510
6.	Gujarat	Ir.	10766	0	0	0	0	0	0	0	0	0	
		UI.	2355	0	0	0	0	0	0	0	0	0	
		Total	13121	536	2035	6615	237	2935	0	0	0	186	25665
7.	Haryana *	REG.	990	0	1532	144	0	360	0	0	1070	0	
		Total	990	0	1532	144	0	360	0	0	1070	0	4096
8.	Himachal Pradesh		1898	0	0	2570	0	0	0	0	0	0	4468
9.	Jammu & Kashmir		1362	0	0	1380	0	0	0	0	0	438	3180
10.	Jharkhand	Bha.	600	0	0	7830	0	0	0	0	0	0	
		Agh.Hyv.	17520	0	0	0	0	0	0	0	0	0	
		Agh.Lv.		0	0	0	0	0	0	0	0	0	
		Total	18120	0	0	7830	450	0	0	510	240	1620	28770
11.	Karnataka	Hyv.Ir.	7022	1000	820	4736	1570	0	0	0	0	0	
		Hyv.UI.	3010	2211	2948	7964	5904	0	0	0	0	0	
		Tra.Ir.	570	0	0	0	0	0	0	0	0	0	
		Tra.UI.	2370	373	118	32	212	0	0	0	0	0	
		Total	12972	3584	3886	12732	7686	7280	3850	1150	750	11940	65830
12.	Kerala	Aut.	2629	0	0	0	0	0	0	0	0	0	
		Wint.	3288	0	0	0	0	0	0	0	0	0	
		Total	5917	0	0	0	0	0	0	0	42	21913	27872

ANNEX - 1(b) (Contd....)

Sl. No.	S T A T E	Number of Experiments Planned under the crops										Total	
		Paddy	Jowar	Bajra	Maize	Ragi	Red-gram	Green-gram	Black-gram	Sugarca	Others		
1	2	3	4	5	6	7	8	9	10	11	12	13	
13.	Madhya Pradesh #	Ir. Hyv.	790	0	0	0	0	0	0	0	0	0	
		Ir.Lv.	560	0	0	0	0	0	0	0	0	0	
		UI.	1410	0	0	0	0	0	0	0	0	0	
		Total	2760	1746	320	1928	0	1650	0	0	864	9268	
14.	Maharashtra	Ir.	0	0	0	0	0	0	0	0	0	0	
		UI.	0	0	0	0	0	0	0	0	0	0	
		Comp.	0	0	0	0	0	0	0	0	0	0	
		Total	4080	4260	3488	748	872	5786	6210	4852	7666	0	
15.	Meghalaya	Aut.	290	0	0	0	0	0	0	0	0	0	
		Wint.	754	0	0	0	0	0	0	0	0	0	
		Total	1044	0	0	0	0	0	0	0	630	1674	
16.	Odisha	Aut.	7391	0	0	2668	543	0	527	662	0	0	
		Wint.	17444	0	0	35	462	0	1127	1786	129	0	
		Total	24835	0	0	2703	1005	0	1654	2448	129	3373	
17.	Punjab		1980	0	0	360	0	0	0	0	694	0	
18.	Rajasthan		3580	11032	25948	12032	0	0	14164	5256	450	30248	
19.	Tamil Nadu	K/K/S	428	0	0	0	0	0	0	0	0	0	
		S/T/P	1260	0	0	0	0	0	0	0	0	0	
		N/K	0	0	0	0	0	0	0	0	0	0	
		REG.Ir.	0	32	32	108	16	0	132	16	0	0	
		REG.UI.	0	408	208	148	144	0	0	96	0	0	
		REG.	0	0	0	0	0	336	0	0	468	336	
		Total	1688	440	240	256	160	336	132	112	468	336	
20.	Telangana	Ir.	1790										
		UI.	104										
		Total	1894	372	52	1388	36	1296	652	204	208	468	
21.	Uttarakhand		2962	0	0		1110		0		0	620	
22.	Uttar Pradesh		187250	9320	36368	28956	0	14208	2324	14956	9612	160	
23.	West Bengal *	Aus.	2281	0	0	0	0	0	0	0	0	0	
		Aman.	13308	0	0	0	0	0	0	0	0	0	
		Total	15589	0	0	634	0	0	0	1209	0	0	
24.	Dadra & N.Haveli		78	0	0	0	22	0	0	0	0	0	
25.	Daman & Diu		20	0	8	0	0	0	0	0	0	28	
26.	Puducherry		98	0	0	0	0	0	0	0	0	98	
	Grand Total		355475	31538	74365	82238	12002	35493	29574	31007	24561	74818	751071
% of area under CES to total area under the crop in the CES States (Ref.-Annex-V, Col.-4)			88	83	83	86	92	91@	98	90	89@	-	-

Note :-

1. Crops included under "Others" are:-

Andhra Pradesh:-	Korra (204), Horsegram (120) and Chillies (400) under Regular Scheme.
Bihar :-	Potato Agh. (340), Brinjal Agh. (340) and Tomato Agh. (140).
Chhattisgarh :-	Kodon-Kutki (288).
Goa :-	Cowpea(190)
Gujarat:-	Moth (0) and Gowar (186)
Jammu & Kashmir:-	Saffron (114) and Potato (324).
Jharkhand	Potato Agh. (570), Tomato Agh. (660) and Brinjal (390).
Karnataka :-	Horsegram (2650), Navane (730), Save (330), Potato (590), Onion (2290), Chillies (770), Aware (1090), Cowpea(950), Tomato(1590), Brinjal(280), Turmeric(390), Beans(180), Cabbage(100) and Cowpea (Lobia) (430).
Kerala :-	Arecanut (1620), Tapioca (1593), Cashewnut (1518), Pepper (1614), Cocoa (793), Banana (2394), Jackfruit (1618), Plantain (1622), Turmeric (1553), Pineapple (1552), Ginger (1442), and Mango (1620), Tamarind(1592), Nutmeg(1382).
Madhya Pradesh:-	Kodon-Kutki (864).
Maharashtra :-	Arecanut (N.A.) and Cashewnut (N.A.).
Meghalaya:-	Ginger (630).
Odisha:-	Horsegram-Wint. (2271) and Potato-Wint. (2012).
Rajasthan :-	Chowla (1748), Moth (6812) and Gwar (21688)
Tamil Nadu:-	Horsegram (0), Varagu (124), Samai (100), Cowpea(112)
Telangana :-	Horsegram (0), Korra (10), Chillies (458)
Uttarakhand:-	Sawan (624).
Uttar Pradesh:-	Sawan (70) and Kodan (90).

1. @ : Percentage includes both Kharif and Rabi seasons.
2. # : Figure repeated from the year 2013-14 in respect for crops Banana, Onion and Papaya and all other crop 2015-16 for Madhya Pradesh.
3. * : Data repeated from the year 2015-16
4. Crops Tamarind & Nutmeg are added in Kerala State.
5. Crops Beans & Cabbage are added in Karnataka State.

ANNEX- I(c) : SAMPLE SIZE - RABI FOOD CROPS UNDER CES 2017-18

Sl. No.	S T A T E	Number of experiments planned under crops										
		Paddy	Jowar	Wheat	Maize	Barley	Gram	Green gram	Black gram	Others	Total	
1	2	3	4	5	6	7	8	9	10	11	12	
1.	Andhra Pradesh	Reg.Ir	2994	0	0	0	0	0	0	0	0	
		Reg.	0	482	0	554	0	1328	402	634	852	
		Total	2994	482	0	554	0	1328	402	634	7236	
2.	Assam	Sum	1500	0	850	0	0	0	0	500	850	
3.	Bihar	Rabi	0	0	0	760	300	800	504	0	0	
		Hyv.Ir	0	0	31070	0	0	0	0	0	0	
		Hyv.UI	0	0	35	0	0	0	0	0	0	
		Lv.Ir	0	0	9605	0	0	0	0	0	0	
		Lv.UI	0	0	555	0	0	0	0	0	0	
		Gar.Hyv.	300	0	0	380	0	0	0	0	0	
		Gar.Lv.	140	0	0	120	0	0	0	0	0	
		Gar.	0	0	0	0	0	0	0	0	0	
		Total	440	0	41265	1260	300	800	504	0	6264	
4.	Chhattisgarh	Hyv.Ir	0	0	468	0	0	0	0	0	0	
		Lv.Ir	0	0	198	0	0	0	0	0	0	
		Lv.UI	0	0	226	0	0	0	0	0	0	
		Total	0	0	892	0	16	452	0	0	666	
5.	Goa		190	0	0	0	0	0	0	0	190	
6.	Gujarat	Ir	0	0	40260	0	0	0	0	0	0	
		UI	0	0	718	0	0	0	0	0	0	
		Total	200	290	40978	0	0	3860	0	0	24294	
7.	Haryana *		0	0	2200	0	516	562	0	0	0	
8.	Himachal Pradesh		0	0	2666	0	1160	0	0	0	0	
9.	Jammu & Kashmir		0	0	1956	0	0	0	0	0	184	
10.	Jharkhand &	Hyv.	0	0	17520	0	0	0	0	0	0	
		Lv.	0	0		0	0	0	0	0	0	
		Total	0	0	17520	0	0	7830	0	0	10860	
11.	Karnataka	Rabi Hyv.Ir	1385	330	2257	2612	0	0	0	0	0	
		Rabi Hyv.UI	0	2125	1202	690	0	0	0	0	0	
		Rabi Tra.Ir	97	1606	143	0	0	1888	0	0	0	
		Rabi Tra.UI	0	6209	252	10	0	7480	0	0	0	
		Rabi.Hyv.	0	0	0	0	0	0	0	0	0	
		Rabi.HYV-UI	0	0	0	0	0	0	0	0	0	
		Sum.Hyv. Ir	3474	40	0	310	0	0	0	0	0	
		Sum. Tra. Ir.	54	0	0	0	0	0	0	0	0	
		Rabi Ir	0	0	0	0	0	0	0	0	0	
		Rabi UI	0	0	0	0	0	0	0	0	0	
12.	Kerala	Total	5010	10310	3854	3622	0	9368	110	130	7594	39998
		Rabi	0	0	0	0	0	0	0	0	0	
		Sum.	1678	0	0	0	0	0	0	0	0	
13.	Madhya Pradesh #	Total	1678	0	0	0	0	0	0	0	0	
		Hyv.Ir	0	0	3150	0	0	0	0	0	0	
		Lv.Ir	0	0	1380	0	0	2722	0	0	0	
		Lv.UI	0	0	1300	0	0	2608	0	0	0	
		Total	0	0	5830	0	536	5330	0	0	1544	
											13240	

ANNEX 1(c) (Contd....)

Sl. No.	S T A T E	Number of experiments planned under crops										
		Paddy	Jowar	Wheat	Maize	Barley	Gram	green gram	Black gram	Others	Total	
1	2	3	4	5	6	7	8	9	10	11	12	
14.	Maharashtra	Ir	0	0	0	0	0	0	0	0	0	
		UI	0	0	0	0	0	0	0	0	0	
		Sum.	462	0	0	0	0	0	0	0	0	
		Total	462	8512	7990	498	0	5526	0	0	22988	
15.	Meghalaya		0	0	0	0	0	0	0	312	312	
16.	Odisha	Win.	0	0	0	0	0	0	0	0	0	
		Sum.	3425	0	22	246	0	0	1776	566	0	
		Total	3425	0	22	246	0	0	1776	566	63	
17.	Punjab		0	0	2332	0	240	100	0	0	2672	
18.	Rajasthan	Ir	0	0	0	0	0	0	0	0	0	
		UI	0	0	0	0	0	0	0	0	0	
		Comp.	0	0	0	0	0	0	0	0	0	
		Total	0	0	39636	0	5852	14684	0	0	11180	
19.	Tamil Nadu		300	640	0	176	0	0	308	312	836	
20.	Telangana	Reg.Ir	2096									
		Reg.										
		Total	2096	390	0	1834	0	694	156	114	198	
21.	Uttarakhand		0	0	2956	0	674	0	0	0	3630	
22.	Uttar Pradesh	Zaid	0	0	0	0	0	0	0	640	640	
		Total	0	0	226442	80	706	13898	600	700	45762	
23.	West Bengal *	Sum.	11674	0	0	0	0	0	0	0	0	
		Total	11674	0	2528	0	0	725	697	0	3775	
24.	Dadra & Nagar Haveli		0	0	0	0	0	0	0	0	0	
25.	Daman & Diu		0	0	0	0	0	0	0	0	0	
26.	Puducherry	I.	140	0	0	0	0	0	0	0	0	
		II.	70	0	0	0	0	0	0	0	0	
		Total	210	0	0	0	0	0	0	0	210	
Grand Total		30179	20624	399917	8270	10000	65157	4397	2842	115424	657710	
% of area under CES to total area under the crop in the CES States. (Ref. Annex-v, col.-4)			90	23	95	74	89	96	84	36	-	

Note :-

1. Crops included under "Others" are :-

Andhra Pradesh :-	Ragi (170), Horsegram (270) and Chillies (402) under regular Scheme.
Assam :-	Potato (850)
Bihar:-	Lakh (420), Masur (980), Chillies(340), Banana (500), Mango(600), Guava (280), Potato(424), Onion (424), Brinjal (340), Tomato (280), Cauliflower (340), Jackfruit (420), Lichi (300) and Redgram (616).
Chhattisgarh :-	Lakh (440), Potato (150), Chillies (26) and Onion (50) .
Goa:-	Cowpea(190)
Gujarat:-	Bajra-Sum.(13994), Cumin (8550), Fennel (350), Onion (0), Banana (0), Garlic (0) and Potato (1400)
Jammu & Kashmir :-	Potato (184).
Jharkhand:-	Redgram (660), Brinjal (480), Potato (7830), Tomato (540) , Onion (630) and Masur (720) .
Karnataka:-	Ragi-Rabi-Hyv -Irr (600), HYV-UI (832) Sum.Hyv.(300), Horsegram (4632), Potato (250), Onion- Rabi (390), Summer (170) and Chillies-Rabi (0), Summer (0), Avare UI (10), Summer(70), Tomato Rabi(280)Summer(60)
Madhya Pradesh:-	Lakh (220), Chillies(80), Banana (138), Potato (432), Onion(642) and Papaya (32).
Meghalaya :-	Potato-Sum.(312).
Odisha:-	Ragi-Sum.(40) and Horsegram Sum. (23).
Tamil Nadu:-	Cumbu(204), Ragi(200), Horsegram(320) and Cowpea(112)
Rajasthan :-	Cumin (4888), Methi (1768), Masur (1348) and Coriander (3176).
Telangana :-	Horsegram(0), Chillies(198)
Uttar Pradesh:-	Masur (16152), Peas (8028), Sawan-Zaid (20), Potato (21512), Onion- Rabi (70) and Onion- Zaid (620).
West Bengal:-	Lakh (358), Masur (2537), Peas(314), Redgram (127) and Sugarcane(439).

1. # : Figure repeated from the year 2013-14 in respect for crops Banana, Onion and Papaya and all other crop 2015-16 for Madhya Pradesh.

2. & : Data repeated from the year 2016-17

3. * : Data repeated from the year 2015-16

ANNEX- I (d) : SAMPLE SIZE - KHARIF NON- FOOD CROPS UNDER CES 2017-18

Sl. No.	S T A T E	Number of experiments planned under crops										
		Ground nut	Sesa- num	Castor	Coco- nut	Niger	Cotton	Jute	Mesta	Sun- flower	Soya- bean	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Andhra Pradesh	2608	270	232	0	0	952	0	200	196	78	4536
2.	Assam	0	0	0	0	0	0	600	0	0	0	600
3.	Bihar	0	0	0	0	0	0	200	200	0	0	400
4.	Chhattisgarh	246	220	0	0	0	0	0	0	0	156	622
5.	Goa	80	0	0	0	0	0	0	0	0	0	80
6.	Gujarat	Ir	0	0	0	0	21958	0	0	0	0	
		UI	0	0	0	0	7370	0	0	0	0	
		Total	15505	1138	4789	0	29328	0	0	0	0	50760
7.	Haryana *	0	0	0	0	0	940	0	0	0	0	940
8.	Himachal Pradesh	0	0	0	0	0	0	0	0	0	0	0
9.	Jammu & Kashmir	0	0	0	0	0	0	0	0	0	0	0
10.	Jharkhand &	0	0	0	0	0	0	0	0	0	0	0
11.	Karnataka	Ir	1616	0	0	0	1460	0	0	1640	260	
		UI	6610	1880	700	0	2060	0	0	3010	1704	
		Total	8226	1880	700	0	3520	0	0	4650	1964	20940
12.	Kerala	0	94	0	2430	0	0	0	0	0	0	2524
13.	Madhya Pradesh #	954	1476	0	0	0	962	0	0	0	2774	6166
14.	Maharashtra	Ir	0	0	0	0	0	0	0	0	0	
		UI	0	0	0	0	0	0	0	0	0	
		Comp.	0	0	0	0	0	0	0	0	0	
		Total	2904	872	0	0	346	8510	0	0	338	5258
15.	Meghalaya	0	0	0	0	0	0	52	0	0	0	52
16.	Odisha	Aut.	1108	192	0	0	0	0	40	0	0	
		Wint.	104	537	0	0	0	0	0	0	0	
		Total.	1212	729	0	0	0	0	40	0	0	1981
17.	Punjab	0	0	0	0	0	680	0	0	0	0	680
18.	Rajasthan	6444	6444	0	0	0	6672	0	0	0	8008	27568
19.	Tamil Nadu	Reg.Ir	104	88	0	0	0	104	0	0	60	0
		Reg.UI	596	136	0	0	0	460	0	0	36	0
		Reg.	0	0	0	0	0	0	0	0	0	0
		Total	700	224	0	0	0	564	0	0	96	0

Annex 1(d) (Contd...)

Sl. No.	S T A T E	Number of experiments planned under crops										Total
		Ground nut	Sesa- num	Castor	Coco- nut	Niger	Cotton	Jute	Mesta	Sun- flower	Soya- bean	
1	2	3	4	5	6	7	8	9	10	11	12	13
20.	Telangana	188	56	150	0	0	1372	0	0	0	602	2368
21.	Uttarakhand	0	0	0	0	0	0	0	0	0	0	0
22.	Uttar Pradesh	7706	13476	0	0	0	80	0	0	0	864	22126
23.	West Bengal *	0	0	0	0	0	0	2910	222	0	0	3132
24.	Dadra & N.Haveli	0	0	0	0	0	0	0	0	0	0	0
25.	Daman & Diu	0	0	0	0	0	0	0	0	0	0	0
26.	Puducherry	0	0	0	0	0	0	0	0	0	0	0
Grand Total		46773	26879	5871	2430	346	53580	3802	622	5280	19704	165287
% of area under CES to total area under the crop in the CES States.		97	93	93	30	68	50	99	97	99	94	-
(Ref. Annex-v, Col.-4)												

Note:-

1. & : Data repeated from the year 2016-17
2. # : Figure repeated from the year 2013-14 in respect for crops Banana, Onion and Papaya and all other crop 2015-16 for Madhya Pradesh
3. * : Data repeated from the year 2015-16

ANNEX 1(e) - SAMPLE SIZE - RABI NON -FOOD CROPS UNDER CES 2017-18

Sl. No.	S T A T E	Number Of Experiments Planned under the Crops										
		Groun Nut.	Sesa- mum	Rape & Mustar	Lin- seed	Saffl- ower	Sun- flower	Tara- Meer	Tobac co	Isab gol	Betel leaves	Cotton
1	2	3	4	5	6	7	8	9	10	11		12
1.	Andhra Pradesh (Reg.)	842	310	0	0	0	368	0	(N) #	0	0	0
									(V) #	0	0	386
		Total	842	310	0	0	368	0	#	0	0	2202
2.	Assam		0	0	1250	0	0	0	0	0	0	0
3.	Bihar		0	0	1064	0	0	0	0	0	0	0
4.	Chhattisgarh		0	0	416	276	0	0	0	0	0	692
5.	Goa		80	0	0	0	0	0	0	0	0	80
6.	Gujarat		4170	0	3535	0	0	0	0	168	0	8099
7.	Haryana *		0	0	1040	0	0	230	0	0	0	1270
8.	Himachal Pradesh		0	0	0	0	0	0	0	0	0	0
9.	Jammu & Kashmir		0	0	244	16	0	0	0	0	0	260
10.	Jharkhand &		0	0	7830	0	0	0	0	0	0	7830
11.	Karnataka	Rabi-Ir	0	0	0	0	0	1762	0	0	0	20
		Rabi UI	130	0	0	0	1770	2476	0	0	0	110
		Sum.Ir	4840	0	0	0	0	1240	0	0	0	6080
		Sum.UI	0	0		0	0	0	0	0	0	0
		Rabi/Sum.	0	0	0	260	0	0	0	0	0	260
		Total	4970	0	0	260	1770	5478	0	#	0	130
12.	Kerala		0	0	0	0	0	0	0	0	705	0
13.	Madhya Pradesh #		0	0	1116	920	0	0	0	0	0	2036
14.	Maharashtra	Rabi	0	0	0	172	1430	184	0	#	0	0
		Sum.	1486	0	0	0	0	54	0	0	0	1540
		Total	1486	0	0	172	1430	238	0	#	0	3342
15.	Meghalaya		0	0	0	0	0	0	0	0	0	0
16.	Odisha	Wint.	0	0	1694	0	0	0	0	0	0	1694
		Sum.	1367	144	0	0	0	0	0	0	0	1511
		Total	1367	144	1694	0	0	0	0	0	0	3205
17.	Punjab		0	0	566	0	0	0	0	0	0	566
18.	Rajasthan	Ir	0	0	0	0	0	0	0	0	0	0
		UI	0	0	0	0	0	0	0	0	0	0
		Comp.	0	0	0	0	0	0	0	0	0	0
		Total	0	0	30268	0	0	1400	0	4292	0	35960
19.	Tamil Nadu		460	256	0	0	0	204	0	0	0	256
20.	Telangana		1154	180	0	0	0	134	0	#	0	1504
21.	Uttarakhand		0	0	0	0	0	0	0	0	0	0
22.	Uttar Pradesh	Rabi	0	0	0	0	0	0	#	0	0	100
		Zaid	0	0	0	0	0	170	0	#	0	190
		Total	0	0	28076	130	0	170	0	#	0	28496
23.	West Bengal *		611	3183	5030	163	0	0	0	0	0	8987
24.	Dadra & N.Haveli		0	0	0	0	0	0	0	0	0	0
25.	Daman & Diu		0	0	0	0	0	0	0	0	0	0

ANNEX 1(e) (Contd....)

Sl. No.	S T A T E	Number Of Experiments Planned under the Crops											
		Ground Nut.	Sesa- num	Rape & Mustard seed	Lin- seed	Saffl- ower	Sun- flower	Tara- Meera	Tobacc	Isabgo	Betal leav	Cotton	Total
1	2	3	4	5	6	7	8	9	10	11			12
26.	Puducherry	0	0	0	0	0	0	0	0	0	0	0	0
	Grand Total	15140	4073	82129	1937	3200	6822	1400	1340	4460	705	386	121592
% of area under CES to total area under the crop in the CES States. (Ref. Annex-v, Col.4)		74	95	93	87	94	32	68	85	99			-

Note :-

1. # : Figure repeated from the year 2015-16 for all Crops for Madhya Pradesh.
2. & : Data repeated from the year 2016-17.
3. : Crop Cotton added in Karnataka State.
4. * : Data repeated from the year 2015-16.
5. : Crop Betal leaves added in Kerala State.

ANNEX - II : TRAINING OF PRIMARY WORKERS UNDER CES 2017-18

Sl. No.	S T A T E	A G E N C Y	Number of Centres			Attendance of Primary Staff.							
			Total	Covered by		Total Strength	Total Called	Total Attended		Trained by NSSO officer			
				NSSO				In Numbers	In Percen- tage (%)				
				As training officers	As obs- servers								
1	2	3	4	5	6	7	8	9	10	11			
1.	Andhra Pradesh	Statistical	459	-	-	1508	1508	1491	99	-			
		Agriculture		-	-					-			
2.	Assam	Statistical	26	11	5	85	85	85	100	-			
3.	Bihar	Revenue	2	-	-	1068	1068	942	88	-			
		Statistical	4	-	-	543	543	486	90	-			
		Agriculture	1	-	-	8248	8248	6928	84	-			
4	Chhattisgarh	Statistical/Agriculture	27	27	27	507	507	273	54	-			
		Agriculture											
5.	Goa	Agriculture (Kharif)	1	-	-	23	23	23	100	-			
		Agriculture (Rabi)	1	-	-	21	21	21	100	-			
6.	Gujarat \$	Agriculture	47	-	-	1466	1408	1408	100	-			
7.	Haryana %	Agriculture (Kharif)	35	21	35	719	719	691	96	21			
		Revenue (Kharif)	-	-	-	6	6	6	-	-			
		Agriculture (Rabi)	35	21	35	758	758	710	94	21			
		Revenue (Rabi)	-	-	-	52	49	46	94	-			
8.	Himachal Pradesh	Revenue (Kharif)	7	5	4	258	258	222	86	96			
		Agriculture (Kharif)	7	4	7	139	139	111	80	32			
		Revenue (Rabi)	7	5	5	258	258	222	86	96			
		Agriculture (Rabi)	7	4	4	139	139	111	80	32			
9.	Jammu &	Revenue (Kharif)	21	-	-	2487	2142	2021	94	-			
	Kashmir	Revenue (Rabi)											
10.	Jharkhand	Agriculture	N.A.										
11.	Karnataka	Revenue	176	-	-	6969	6969	6452	93	-			
		Agriculture		-	-	1435	1435	1348	94	-			
		Rural Development, Horticulture & Panchayati Raj		-	-	6555	6555	5890	90				
12.	Kerala	Statistical	14	-	-	1028	1021	968	95	-			
13.	Madhya Pradesh %	Revenue	34	-	34	4407	4407	3863	88	-			
14.	Maharashtra	Revenue (Kharif)	21		21	3368	3368	2224	66	-			
		Zila Parishad (Kharif)				828	828	497	60	-			
		Agriculture (Kharif)				2525	2525	1337	53	-			
		Revenue (Rabi)				2961	2961	1729	58	-			
		Zila Parishad (Rabi)				655	655	655	100	-			
		Agriculture (Rabi)				3894	1947	920	47	-			

ANNEX - II (Contd...)

Sl. No.	S T A T E	A G E N C Y	Number of Centres			Attendance of Primary Staff.						
			Total	Covered by		Total Strength	Total Called	Total Attended		Trained by NSSO officer		
				NSSO				In Numbers	In Percentage (%)			
				As training officers	As observers							
1	2	3	4	5	6	7	8	9	10	11		
15.	Meghalaya \$	Statistical	2	-	-	46	46	46	100	-		
16.	Odisha	Statistical	30	-	30	677	677	677	100	-		
17.	Punjab	Agriculture (Kharif)	98	0	98	786	786	786	100	-		
		Agriculture (Rabi)	89	0	89	728	728	728	100	-		
18.	Rajasthan	Statistical (Kharif)	214	28	186	9523	9523	9523	100	973		
		Statistical (Rabi)	117	0	117	6357	6357	6357	100	0		
19.	Tamil Nadu	Agriculture	73	-	-	831	831	788	95	-		
20.	Telangana	Statistical	80	-	-	2290	2271	2173	96	973		
		Agriculture										
21.	Uttarakhand	Revenue (Kharif)	65	-	-	1804	1804	1055	58	0		
		Revenue (Plain)	49	-	-	1342	1342	623	46	N.A.		
		Revenue (Hills)	16	-	-	462	462	259	56	N.A.		
22.	Uttar Pradesh \$	Revenue (Kharif)	68	5	78	1267	1267	1051	83	-		
		Revenue (Rabi)	19	3	27	1063	1063	1037	98	-		
		Revenue (Zaid)	67	-	68	1158	1158	982	85	-		
		Cane Dev. Staff	-	-	-	-	-	-	-	-		
		Cotton Dev. Staff										
23.	West Bengal %	Statistical	22	-	-	254	254	254	100	-		
24.	Dadra & Nagar	Development & Planning	1	-	-	13	13	13	100	-		
	Haveli	Division Soil Conservation		-	-	10	10	10	100	-		
		Agriculture Deptt.		-	-	3	3	3	100			
25.	Daman & Diu	Rural Development	2	-	-	8	8	8	100	-		
		Revenue Department		-	-	6	6	6	100	-		
		Statistical Department		-	-	-	-	-	-	-		
26.	Puducherry	Statistical (Kharif)	2	-	2	22	12	12	100	-		
		(Rabi-I)	1	-	-	8	8	8	100	-		
		(Rabi-II)	1	-	-	-	-	-	-	-		
Total			1948	134	872	81568	79179	68079	86	2244		

Note: (i) : Figures in col. 10 indicate the percentage of col. 9 to col. 8.

(ii) % : Figure repeated from the year 2015-16.

(iii) \$: Figure repeated from the year 2016-17.

ANNEX III(a):SUPERVISION OF FIELD WORK-ALL CROPS (SEASON-WISE) UNDER CES 2017-18

Sl. No.	S T A T E	Season	Food / Non Food Crops	Number of experi- ments planned	Number & percentage of experiments Supervised by											
					State Statistical Department				Other State Department				NSO			
					Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Andhra Pradesh	Kharif	Food	9036	166	2	162	2	Not Planned				315	3	308	3
			Non-Food	4536	82	2	81	2					180	4	180	4
			Comb.	13572	248	2	243	2					495	4	488	4
		Rabi	Food	7236	214	3	214	3					128	2	125	2
			Non-Food	2202	40	2	40	2					47	2	47	2
			Comb.	9438	254	3	254	3					175	2	172	2
		Total		23010	502	2	497	2					670	3	660	3
		Kharif	Food	5700	732	13	724	13	Not Applicable				218	4	214	4
			Non-Food	600	108	18	108	18					28	5	28	5
			Comb.	6300	840	13	832	13					246	4	242	4
		Rabi	Food	3700	584	16	582	16					128	3	128	3
			Non-Food	1250	172	14	172	14					60	5	60	5
			Comb.	4950	756	15	754	15					188	4	188	4
		Total		11250	1596	14	1586	14					434	4	430	4
3.	Bihar	Kharif	Food	45561	336	1	336	1	0	0	0	0	290	1	266	1
			Non-Food	400	Not Available				Not Available				Not Available			
			Comb.	45961	336	1	336	1	0	0	0	0	290	1	266	1
		Rabi	Food	50833	330	0.6	330	0.6	0	0	0	0	324	0.6	308.0	0.6
			Non-Food	1064	40	4	40	4	Not Available				40	4	40	4
			Comb.	51897	370	0.7	370	0.7	0	0	0	0	364	1	348	1
		Total		97858	706	1	706	1	0	0	0	0	654	0.7	614	0.6
		Kharif	Food	3346	196	6	178	5	762	23	542	16	200	6	200	6
			Non-Food	622	0	0	0	0	94	15	56	9	Not Available			
			Comb.	3968	196	5	178	4	856	22	598	15	200	5	200	5
4.	Chhattisgarh	Rabi	Food	2026	80	4	80	4	508	25	444	22	80	4	80	4
			Non-Food	692	70	10	70	10	174	25	160	23	70	10	70	10
			Comb.	2718	150	6	150	6	682	25	604	22	150	6	150	6
		Total		6686	346	5	328	5	1538	23	1202	18	350	5	350	5
		Kharif	Food	510	56	11	15	3	Not Applicable				Not Applicable			
			Non-Food	80	0	0	0	0					Not Applicable			
			Comb.	590	56	7	15	3					Not Applicable			
			Food	380	44	12	14	4					Not Applicable			
			Non-Food	80	0	0	0	0					Not Applicable			
			Comb.	460	44	10	14	3					Not Applicable			
		Total		1050	100	10	29	3					Not Applicable			
5.	Goa @	Kharif	Food	25665	1065	4	1065	4	931	4	931	4	188	1	178	1
			Non-Food	50760	3472	7	3472	7	7160	14	7160	14	416	1	398	1
			Comb.	76425	4537	6	4537	6	8091	11	8091	11	604	1	576	1
		Rabi	Food	69622	1656	2	1656	2	1720	2	1629	2	164	0.24	162	0.23
			Non-Food	8099	635	8	635	8	393	5	393	5	48	1	44	1
			Comb.	77721	2291	3	2291	3	2113	3	2022	3	212	0.27	206	0.27
		Total		154146	6828	4	6828	4	10204	7	10113	7	816	1	782	1

Sl. No.	S T A T E	Season	Food / Non Food Crops	Number of experi- ments planned	Number & percentage of experiments Supervised by															
					State Statistical Department				Other State Department				NSSO							
					Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17				
7.	Haryana *	Kharif	Food	4096	116	3	108	3	512	13	498	12	259	6	253	6				
			Non-Food	940	16	2	14	1	124	13	122	13	54	6	54	6				
			Comb.	5036	132	3	122	2	636	13	620	12	313	6	307	6				
		Rabi	Food	3278	56	2	54	2	416	13	402	12	280	9	280	9				
			Non-Food	1270	32	3	24	2	202	16	174	14	100	8	100	8				
			Comb.	4548	88	2	78	2	618	14	576	13	380	8	380	8				
		Total		9584	220	2	200	2	1254	13	1196	12	693	7	687	7				
8.	Himachal Pradesh **	Kharif	Food	4468	196	4	196	4	122	3	122	3	124	3	124	3				
			Non-Food						Not Planned											
			Comb.	4468	196	4	196	4	122	3	122	3	124	3	124	3				
		Rabi	Food	3826	218	6	218	6	78	2	78	2	111	3	107	3				
			Non-Food						Not Planned											
			Comb.	3826	218	6	218	6	78	2	78	2	111	3	107	3				
		Total		8294	414	5	414	5	200	2	200	2	235	3	231	3				
9.	Jammu & Kashmir	Kharif	Food	3180	214	7	156	5	Not Available				158	5	158	5				
			Non-Food						Not Available											
			Comb.	3180	214	7	156	5	Not Available				158	5	158	5				
		Rabi	Food	2140	164	8	120	6					118	6	118	6				
			Non-Food	260			Not Available						Not Available							
			Comb.	2400	164	7	120	5					118	5	118	5				
		Total		5580	378	7	276	5	Not Available				276	5	276	5				
10.	Jharkhand \$	Kharif	Food	28770	92	0.32	92	0.32	Not Available				118	0.41	118	0.41				
			Non-Food	0			Not Available						Not Available							
			Comb.	28770	92	0.32	92	0.32					118	0.41	118	0.41				
		Rabi	Food	36210	86	0.24	86	0.24	Not Available				80	0.22	80	0.22				
			Non-Food	7830			Not Available						20	0.26	20	0.26				
			Comb.	44040	86	0.20	86	0.20					100	0.23	100	0.23				
		Total		72810	178	0.24	178	0.24	Not Available				218	0.30	218	0.30				
11.	Karnataka	Kharif	Food	65830	3800	6	3800	6	6900	10	6900	10	369	1	287	0				
			Non-Food	20940	958	5	958	5	1886	9	1886	9	120	1	80	0				
			Comb.	86770	4758	5	4758	5	8786	10	8786	10	489	1	367	0				
		Rabi	Food	39998	1885	5	1885	5	4058	10	4058	10	164	0.4	137	0.3				
			Non-Food	12868	360	3	360	3	640	5	640	5	55	0	49	0.4				
			Comb.	52866	2245	4	2245	4	4698	9	4698	9	219	0	186	0.4				
		Total		139636	7003	5	7003	5	13484	10	13484	10	708	1	553	0				
12.	Kerala	Kharif	Food	27872	8522	31	2816	10	Not Applicable				370	1	370	1				
			Non-Food	2524	2149	85	0	0					50	2	50	2				
			Comb.	30396	10671	35	2816	9					420	1	420	1				
		Rabi	Food	1678	796	47	686	41	Not Available				100	6	100	6				
			Non-Food	705	705	100	0	0												
			Comb.	2383	1501	63	686	29					100	4	100	4				
		Total		32779	12172	37	3502	11	Not Available				520	2	520	2				

Sl. No.	S T A T E	Season	Food / Non Food Crops	Number of experi- ments planned	Number & percentage of experiments Supervised by																								
					State Statistical Department				Other State Department				NSSO																
					Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17													
13.	Madhya Pradesh #	Kharif	Food	9268	45	0.5	45	0.5	1854	20	1854	20	386	4	378	4													
			Non-Food	6166	88	1.4	88	1.4	1883	31	1883	31	214	3	214	3													
			Comb.	15434	133	0.9	133	0.9	3737	24	3737	24	600	4	592	4													
		Rabi	Food	13240	169	1.3	169	1.3	5262	40	5262	40	384	3	379	3													
			Non-Food	2036	25	1	25	1	804	39	804	39	134	7	132	6													
			Comb.	15276	194	1.3	194	1.3	6066	40	6066	40	518	3	511	3													
		Total		30710	327	1.1	327	1.1	9803	32	9803	32	1118	4	1103	4													
		Not Available												511	1	354	1												
14.	Maharashtra	Kharif	Food	37962	Not Available												262	1	230	1									
			Non-Food	18228	Not Available												773	1	584	1									
			Comb.	56190	Not Available												398	2	236	1									
		Rabi	Food	22988	Not Available												32	1	8	0									
			Non-Food	3342	Not Available												430	2	244	1									
			Comb.	26330	Not Available												1203	1	828	1									
15.	Meghalaya @@	Kharif	Food	1674	95	6	71	4	11	1	11	1	Not Applicable				Not Applicable												
			Non-Food	52	Not Available																								
			Comb.	1726	95	6	71	4	11	1	11	1																	
		Rabi	Food	312	18	6	13	4	2	1	2	1																	
			Non-Food	Not Available													Not Available												
			Comb.	312	18	6	13	4	2	1	2	1																	
		Total		2038	113	6	84	4	13	1	13	1																	
16.	Odisha	Kharif	Food	36147	4828	13	4828	13	10967	30	10967	30	640	2	640	2	Not Available												
			Non-Food	1981	223	11	223	11	452	23	452	23	0	0	0	0	Not Available												
			Comb.	38128	5051	13	5051	13	11419	30	11419	30	640	2	640	2	Not Available												
		Rabi	Food	6098	607	10	607	10	1643	27	1643	27	180	3	178	3	Not Available												
			Non-Food	3205	230	7	230	7	384	12	384	12	Not Available				Not Available												
			Comb.	9303	837	9	837	9	2027	22	2027	22	180	2	178	2	Not Available												
		Total		47431	5888	12	5888	12	13446	28	13446	28	820	2	818	2	Not Available												
17.	Punjab	Kharif	Food	3034	138	5	134	4	570	19	530	17	306	10	304	10	Not Available												
			Non-Food	680	24	4	24	4	114	17	114	17	72	11	72	11	Not Available												
			Comb.	3714	162	4	158	4	684	18	644	17	378	10	376	10	Not Available												
		Rabi	Food	2672	120	4	112	4	380	14	348	13	278	10	271	10	Not Available												
			Non-Food	566	0	0	0	0	84	15	84	15	40	7	40	7	Not Available												
			Comb.	3238	120	4	112	3	464	14	432	13	318	10	311	10	Not Available												
		Total		6952	282	4	270	4	1148	17	1076	15	696	10	687	10	Not Available												
18.	Rajasthan ***	Kharif	Food	102710	1856	2	1336	1	93139	91	65318	64	291	0.28	295	0.29	Not Available												
			Non-Food	27568	426	2	356	1	23843	86	16167	59	138	0.50	138	0.50	Not Available												
			Comb.	130278	2282	2	1692	1	116982	90	81485	63	429	0.33	433	0.33	Not Available												
		Rabi	Food	71352	1169	2	1169	2	42324	59	42324	59	345	0.48	345	0.48	Not Available												
			Non-Food	35960	531	1	531	1	20762	58	20762	58	90	0.25	82	0.23	Not Available												
			Comb.	107312	1700	2	1700	2	63086	59	63086	59	435	0.41	427	0.40	Not Available												
		Total		237590	3982	2	3392	1	180068	76	144571	61	864	0.36	860	0.36	Not Available												

Sl. No.	S T A T E	Season	Food / Non Food Crops	Number of experi- ments planned	Number & percentage of experiments Supervised by											
					State Statistical Department				Other State Department				NSSO			
					Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
19.	Tamil Nadu	Kharif	Food	4168	3576	86	3576	86	264	6	264	6	375	9	363	9
			Non-Food	1584	1378	87	1378	87	79	5	79	5	128	8	121	8
			Comb.	5752	4954	86	4954	86	343	6	343	6	503	9	484	8
		Rabi	Food	2572	2237	87	2237	87	129	5	129	5	199		197	
			Non-Food	1176	1024	87	1024	87	59	5	59	5	120		113	
			Comb.	3748	3261	87	3261	87	188	5	188	5				
		Total		9500	8215	86	8215	86	531	6	531	6	503	5	484	5
20.	Telangana	Kharif	Food	6570	1445	22	1445	22	Not Available				228	3	226	3
			Non-Food	2368	506	21	506	21					118	5	115	5
			Comb.	8938	1951	22	1951	22					346	4	341	4
		Rabi	Food	5482	1244	23	1244	23					127	2	127	2
			Non-Food	1504	306	20	306	20					Not Available			
			Comb.	6986	1550	22	1550	22					127	2	127	2
		Total		15924	3501	22	3501	22					473	3	468	3
21.	Uttarakhand	Kharif	Food	4692	214	5	214	5	870	19	870	19	90	2	75	2
			Non-Food						Not Available							
			Comb.	4692	214	5	214	5	870	19	870	19	90	2	75	2
		Rabi	Food	3630	162	4	162	4	654	18	654		60	2	54	1
			Non-Food						Not Available							
			Comb.	3630	162	4	162	4	654	18	654	18	60	2	54	1
		Total		8322	376	5	376	5	1524	18	1524	18	150	2	129	2
22.	Uttar Pradesh	Kharif	Food	303154	Not Available								1330	0.4	1312	0.4
			Non-Food	22126									33	0.1	33	0.1
			Comb.	325280									1363	0.42	1345	0.41
		Rabi	Food	288828									815	0.28	791	0.27
			Non-Food	28496									100	0.35	99	0.35
			Comb.	317324									915	0.29	890	0.28
		Total		642604									2278	0.35	2235	0.35
23.	West Bengal*	Kharif	Food	17432	1273	7	1273	7	97	0.6	97	0.6	258	1	254	1
			Non-Food	3132	311	10	311	10	16	0.5	16	0.5	1438	46	1366	44
			Comb.	20564	1584	8	1584	8	113	0.5	113	0.5	1696	8	1620	8
		Rabi	Food	19399	1234	6	1234	6	16	0.1	16	0.1	140	1	140	1
			Non-Food	8987	937	10	937	10	10	0.1	10	0.1	0	0	0	0
			Comb.	28386	2171	8	2171	8	26	0.1	26	0.1	140	0	140	0
		Total		48950	3755	8	3755	8	139	0.3	139	0.3	1836	4	1760	4
24.	Dadra & Nagar Haveli @	Kharif	Food	100	44	44	44	44	56	56	56	56	Not Applicable			
			Non-Food						No Planning							
			Comb.	100	44	44	44	44	56	56	56	56				
		Rabi	Food						No Planning				No Planning			
			Non-Food													
			Comb.													
		Total			100	44	44	44	56	56	56	56				

ANNEX III (a) (Contd..)

Sl. No.	S T A T E	Season	Food / Non Food Crops	Number of experi- ments planned	Number & percentage of experiments Supervised by													
					State Statistical Department				Other State Department				NSSO					
					Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
25.	Daman & Diu @	Kharif	Food	28	8	29	8	29	20	71	20	71	Not Planning					
			Non-Food															
			Comb.	28	8	29	8	29	20	71	20	71						
		Rabi	Food										No Planning					
			Non-Food															
			Comb.															
		Total		28	8	29	8	29	20	71	20	71	Not Applicable					
26.	Puducherry	Kharif	Food	98	88	90	88	90	Not Available								10 10 10 10	
			Non-Food						Not Available									
			Comb.	98	88	90	88	90	Not Available									
		Rabi	Food	210	190	90	190	90	10 5 10 5									
			Non-Food						Not Available									
			Comb.	210	190	90	190	90	Not Available									
		Total		308	278	90	278	90	20 6 20 6									
		Kharif	Food	751071	29101	7	22710	6	117075	36	88980	27	7034	1	6687	1		
			Non-Food	165287	9741	8	7519	6	35651	32	27935	25	3251	2	3079	2		
			Comb.	916358	38842	7	30229	6	152726	35	116915	27	10285	1	9766	1		
		Rabi	Food	657710	13263	4	13062	4	57190	20	56989	20	4613	1	4353	1		
			Non-Food	121592	5107	6	4394	5	23512	32	23470	32	956	1	904	1		
			Comb.	779302	18370	4	17456	4	80702	22	80459	22	5569	1	5257	1		
TOTAL %				Grand Total	1695660	57212	6	47685	5	233428	29	197374	25	15854	1	15023	1	

Note :-

- (i) % : Percentage figures given under Col.7, 9, 11, 13, 15 and 17 are based on total figures in col. 5. The data in column 5 have been excluded for percentage calculation at all India level where data under any of columns 6, 8, 10, 12, 14 and 16 has not been received from concerned States.
- (ii) %% : Figures repeated for the year 2015-16.
- (iii) # : Figure repeated from the year 2013-14 in respect for crops Banana, Onion & Papaya and all other crops 2015-16 for Madhya Pradesh.
- (iv) \$\$: Data repeated from year 2011-12 for crops Linseed, Potato, R&M and Saffron, all other crop repeated from the year 2014-15.
- (v) @ : ICS Scheme is not operational in Goa, Dadar Nagr Haveli and Daman & Diu.
- (vi). % : Data in crop Greengram, Moth, Blackgram, Onion, Banana, Garlic & Tobacco and Data of State Statistical Department & Other State Department repeated from the year 2015-16.
- (vii)* : Data repeated from the year 2015-16.
- (viii)** : Data of State Statistical Department and Other State Department repeated from the year 2015-16.
- (ix) *** : Data of State Statistical Department and Other State Department repeated for Rabi season from the year 2016-17.
- (x) @@ : Data of State Statistical Department and Other State Department repeated from the year 2016-17 and ICS Scheme is not operational In Meghalaya.

ANNEX III(b) SUPERVISION OF FIELD WORK - CROP-WISE UNDER CES 2017-18

Sl. No	S T A T E	Season	Number of Expts	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.O.			
			Planned	Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Paddy															
1.	Andhra Pradesh	Kharif	3804	90	2	88	2	Not Available				180	5	175	5
		Rabi	2994	120	4	120	4					88	3	85	3
2.	Assam	Aut.	2000	180	9	178	9					66	3	66	3
		Wint.	3000	440	15	434	14					118	4	118	4
		Sum.	1500	204	14	204	14					36	2	36	2
3.	Bihar	Bha.	952	52	5	52	5	Not Available				30	3	28	3
		Agh.	41265	244	1	244	1	0	0.00	0	0.00	193	0.47	171	0.41
		Gar.	440	24	5	24	5	Not Available				26	6	26	6
4.	Chhattisgarh		2026	80	4	78	4	580	29	416	21	80	4	80	4
5.	Goa @	Kharif	190	40	21	15	8	Not Planned							
		Rabi	190	32	17	12	6								
6.	Gujarat %	Kharif	13121	359	2.74	359	2.74	180	1,3718	180	1.37	66	0.5	66	0.5
		Sum.	200	134	67	134	67	62	31	62	31	Not Available			
7.	Haryana *		990	32	3	30	3	208	21	202	20	89	9	89	9
8.	Himachal Pradesh **		1898	74	4	74	4	36	2	36	2	50	3	50	3
9.	Jammu & Kashmir		1362	94	7	68	5	Not Planned				70	5	70	5
10.	Jharkhand \$\$	Bha.	600	20	3	20	3	Not Available				20	3	20	3
		Agh.	17520	52	0.30	52	0.30					78	0.45	78	0.45
11.	Karnataka	Kharif	12972	868	7	868	7	1469	11	1469	11	132	1	119	1
		Rabi	1482	67	5	67	5	68	5	68	5	0	0	0	0
		Sum.	3528	147	4	147	4	200	6	200	6	28	1	22	0.62
12.	Kerala	Aut.	2629	1248	47	1030	39	Not Available				100	4	100	4
		Wint.	3288	1602	49	1297	39					100	3	100	3
		Sum.	1678	796	47	686	41					100	6	100	6
13.	Madhya Pradesh #		2760	14	0.5	14	0.5	722	26	722	26	98	4	98	4
14.	Maharashtra	Kharif	4080	Not Available								63	2	60	1
		Sum.	462									Not Available			
15.	Meghalaya @	Aut.	290	18	6	14	5	2	1	2	1	Not Available			
		Wint.	754	42	6	31	4	5	1	5	1				
16.	Odisha	Aut.	7391	1159	16	1159	16	2737	37	2737	37	220	3	220	3
		Wint.	17444	2372	14	2372	14	5827	33	5827	33	266	2	266	2
		Sum.	3425	402	12	402	12	1166	34	1166	34	140	4	138	4
17.	Punjab		1980	104	5	100	5	414	21	374	19	189	10	187	9
18.	Rajasthan ***	Kharif	3580	87	2	54	2	2902	81	1796	50	Not Available			
19.	Tamil Nadu	K/K/S	428	373	87	373	87	21	5	21	5	39	9	38	9
		S/T/P	1260	1096	87	1096	87	63	5	63	5	80	6	76	6
		N/K	300	261	87	261	87	15	5	15	5	39	13	39	13
20.	Telangana	Kharif	1894	444	23	444	23	0	0	0	0	68	4	66	3
		Rabi	2096	510	24	510	24	0	0	0	0	87	4	87	4
21.	Uttarakhand		2962	150	5	150	5	706	24	706	24	50	2	40	1
22.	Uttar Pradesh		187250	Not Available								660	0.35	658	0.35
23.	West Bengal *	Aus.	2281	297	13	297	13	16	0.7	16	0.7	98	4	94	4
		Aman	13308	858	6	858	6	81	0.6	81	0.6	160	1	160	1
		Sum.	11674	534	5	534	5	5	0.04	5	0.04	140	1	140	1

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by																
				State Statistical Department				Other State Department				N.S.S.O.								
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16					
24.	Dadra and Nagar Haveli @		78	34	44	34	44	44	56	44	56	Not Applicable								
25.	Daman & Diu @	Kharif	20	0	0	0	0	20	100	20	100	Not Applicable								
26.	Puducherry	I	98	88	90	88	90	Not Available						10	10	10	10			
		II	140	130	93	130	93							10	7	10	7			
		III	70	60	86	60	86							10	14	10	14			
Total			385654	16032	4	15262	4	17549	5	16233	4	4077	1	3996	1					
2. JOWAR.																				
1.	Andhra Pradesh	Kharif	178	Not Available																
		Rabi	482																	
2.	Chhattisgarh		70	0	0	0	0	6	9	4	6	Not Available								
3.	Gujarat %	Kharif	536	119	22	119	22	53	10	53	10	Not Available								
		Rabi	290	Not Available																
4.	Karnataka	Kharif	3584	131	4	131	4	263	7	263	7	38	1	16	0.45					
		Rabi	10270	569	6	569	6	1416	14	1416	14	62	1	56	0.55					
		Sum.	40	3	8	3	8	0	0	0	0	Not Available								
5.	Madhya Pradesh #		1746	12	0.7	12	0.7	442	25	442	25	96	5	90	5					
6.	Maharashtra	Kharif	4260	Not Available												64	2	56	1	
		Rabi	8512													150	2	74	1	
7.	Rajasthan ***	Kharif	11032	199	2	174	2	9886	90	7517	68	44	0.40	44	0.40					
8.	Tamil Nadu	Kharif	440	383	87	383	87	22	5	22	5	40	9	40	9					
		Rabi	640	557	87	557	87	32	5	32	5	40	6	40	6					
9.	Telangana	Kharif	372	118	32	118	32	0	0	0	0	40	11	40	11					
		Rabi	390	124	32	124	32	0	0	0	0	40	10	40	10					
10.	Uttar Pradesh		9320	Not Available												40	0	40	0	
Total			52162	2215	4	2190	4	12120	23	9749	19	654	1	536	1					
3. BAJRA.																				
1.	Andhra Pradesh.		488	20	4	19	4	Not Planned				40	8	40	8					
2.	Gujarat %	Kharif	2035	525	26	525	26	500	25	500	25	62	3	52	3					
		Sum.	13994	307	2	307	2	152	1	152	1	Not Available								
3.	Haryana *		1532	44	3	40	3	186	12	182	12	102	7	102	7					
4.	Karnataka	Kharif	3886	178	5	178	5	359	9	359	9	30	1	18	0					
5.	Madhya Pradesh #		320	1	0.3	1	0.3	70	22	70	22	Not Available								
6.	Maharashtra	Kharif	3488	Not Available												50	1	39	1	
7.	Rajasthan ***		25948	408	2	304	1	22770	88	16428	63	54	0.21	54	0.21					
8.	Tamil Nadu	Kharif	240	209	87	209	87	12	5	12	5	40	17	40	17					
		Rabi	204	178	87	178	87	10	4.902	10	5									
9.	Telangana		52	12	23	12	23	0	0	0	0	0	0	0	0					
10.	Uttar Pradesh		36368	Not Available												150	0.41	150	0.41	
11.	Daman & Diu @		8	8	100	8	100	0	0	0	0	Not Applicable								
Total			88563	1890	2	1781	2	24059	27	17713	20	528	1	495	1					
4. MAIZE.																				
1.	Andhra Pradesh	Kharif	234	6	3	6	3	Not Available												
		Rabi	554	6	1	6	1													

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by																			
				State Statistical Department				Other State Department				N.S.S.O.											
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16								
2.	Bihar	Bha.	1260	40	3	40	3	Not Available				28	2	28	2								
		Rabi	760	Not Available								Not Available											
		Gar.	500									Not Available											
3.	Chhattisgarh		468	48	10	36	8	50	11	48	10	40	9	40	9								
4.	Gujarat %		6615	10	0.15	10	0.15	62	1	62	1	18	0.27	18	0.27								
5.	Haryana *		144	-	-	-	-	8	6	8	6	20	14	20	14								
6.	Himachal Pradesh **		2570	122	5	122	5	86	3	86	3	74	3	74	3								
7.	Jammu & Kashmir		1380	120	9	88	6	Not Available				88	6	88	6								
8.	Jharkhand \$\$	Bha.	7830	20	0.26	20	0.26	Not Available				20	0.26	20	0.26								
9.	Karnataka	Kharif	12732	730	6	730	6	1302	10	1302	10	46	0.36	32	0.25								
		Rabi	3312	144	4	144	4	253	8	253	8	Not Available											
		Sum.	310	19	6	19	6	20	6	20	6	Not Available											
10.	Madhya Pradesh #		1928	10	0.5	10	0.5	394	20	394	20	76	4	76	4								
11.	Maharashtra	Kharif	748	Not Available																			
		Rabi	498	Not Available																			
12.	Odisha	Aut.	2668	302	11	302	11	720	27	720	27	40	1	40	1								
		Wint.	35	3	9	3	9	1	3	1	3	Not Available											
		Sum.	246	45	18	45	18	15	6	15	6	Not Available											
13.	Punjab		360	32	9	32	9	72	53	72	20	48	13	48	13								
14.	Rajasthan ***	Kharif	12032	188	2	156	1	11705	97	7841	65	46	0.38	46	0.38								
15.	Tamil Nadu	Kharif	256	223	87	223	87	13	5	13	5	40	16	40	16								
		Rabi	176	153	87	153	87	9	5	9	5	Not Available											
16.	Telangana	Kharif	1388	326	23	326	23	0	0	0	0	40	3	40	3								
		Rabi	1834	370	20	370	20	0	0	0	0	0	0	0	0								
17.	Uttar Pradesh	Kharif	28956	Not Available								170	1	170	1								
		Rabi	80	Not Available								Not Available											
18.	West Bengal *		634	66	10	66	10	Not Available															
Total			90508	2983	3	2907	3	14710	16	10844	12	794	1	780	1								
5. RAGL																							
1.	Andhra Pradesh	Kharif	200	2	1	2	1	Not Available				Not Available											
		Rabi	170	4	2	4	2																
2.	Bihar	Bha.	224	Not Available																			
3.	Goa @			Not Available																			
4.	Gujarat %		237	4	2	4	2	Not Available															
5.	Jharkhand \$\$		450	Not Available																			
6.	Karnataka	Kharif	7686	446	6	446	6	962	13	962	13	37	0.5	28	0.4								
		Rabi	1432	29	2	29	2	71	5	71	5	Not Available											
		Sum.	300	18	6	18	6	17	6	17	6												
7.	Maharashtra		872	Not Available																			
8.	Odisha	Aut.	543	70	13	70	13	80	15	80	15	Not Available											
		Wint.	462	68	15	68	15	70	15	70	15												
		Sum.	40	4	10	4	10	6	15	6	15												
9.	Tamil Nadu	Kharif	160	139	87	139	87	8	5	8	5	40	25	40	25								
		Rabi	200	174	87	174	87	10	5	10	5	Not Available											
10.	Telangana		36	8	22	8	22	0	0	0	0	0	0	0	0								
11.	Uttarakhand		1110	58	5	58	5	122	11	122	11	40	4	35	3								
12.	Dadra and Nagar Haveli @		22	10	45	10	45	12	55	12	55	Not Available											
Total			14144	1034	7	1034	7	1358	10	1358	10	117	1	103	1								

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.S.O.			
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
6. WHEAT.															
1.	Assam		850	130	15	128	15	Not Available				34	4	34	4
2.	Bihar		41265	226	1	226	1	0	0	0	0	222	1	206	0
3.	Chhattisgarh		892	40	4	40	4	256	29	206	23	40	4	40	4
4.	Gujarat %		40978	274	1	274	1	394	1	394	1	140	0.34	138	0.34
5.	Haryana *		2200	52	2	50	2	310	14	298	14	180	8	180	8
6.	Himachal Pradesh **		2666	166	6	166	6	60	2	60	2	89	3	87	3
7.	Jammu & Kashmir		1956	164	8	120	6	Not Available				118	6	118	6
8.	Jharkhand \$\$		17520	32	0.2	32	0.2	Not Available				40	0.23	40	0.23
9.	Karnataka		3854	211	5	211	5	522	14	522	14	38	1	34	0.88
10.	Madhya Pradesh #		5830	81	1.4	81	1.4	2826	48	2826	48	246	4	241	4
11.	Maharashtra		7990	Not Available								148	2	91	1
12.	Odisha	Sum.	22	6	27	6	27	0	0	0	0	Not Available			
13.	Punjab		2332	106	5	98	4	366	16	338	14	218	9	218	9
14.	Rajasthan ***		39636	621	2	621	2	25202	64	25202	64	130	0.33	122	0.31
15.	Uttarakhand		2956	152	5	152	5	592	20	592	20	60	2	54	2
16.	Uttar Pradesh		226442	Not Available								568	0.25	557	0.25
17.	West Bengal *		2528	374	15	374	15	10	0.4	10	0.4	108	4	56	2
Total			399917	2635	1	2579	1	30538	8	30448	8	2379	1	2216	1
7. BARLEY															
1.	Bihar		300												
2.	Chhattisgarh		16	0	0	0	0	0	0	0	0				
3.	Haryana *		516	4	1	4	1	40	8	40	8	30	6	30	6
4.	Himachal Pradesh **		1160	52	4	52	4	18	2	18	2	22	2	20	2
5.	Jharkhand \$\$		Not Available												
6.	Madhya Pradesh #		536	13	2	13	2	147	27	147	27	Not Available			
7.	Punjab		240	6	3	6	3	12	5	8	3	30	13	27	11
8.	Rajasthan ***		5852	254	4	254	4	3876	66	3876	66	80	1	78	1
9.	Uttarakhand		674	10	1	10	1	62	9	62	9				
10.	Uttar Pradesh		706	Not Available								Not Available			
11.	West Bengal *		Not Available												
Total			10000	339	3	339	3	4155	42	4151	42	162	2	155	2
8.GRAM (BENGALGRAM)															
1.	Andhra Pradesh		1328	60	5	60	5	Not Available				40	3	40	3
2.	Bihar		800	40	5	40	5	0	0	0	0	38	5	38	5
3.	Chhattisgarh		452	40	9	40	9	122	27	120	27	40	9	40	9
4.	Gujarat %		3860	396	10	396	10	517	13	517	13	24	1	24	1
5.	Haryana *		562	Not Available				66	12	64	11	70	12	70	12
6.	Jharkhand \$\$		7830	16	0.20	16	0.20	Not Available				20	0.26	20	0.26
7.	Karnataka		9368	485	5	485	5	1129	12	1129	12	36	0.38	25	0.27
8.	Madhya Pradesh #		5330	67	1	67	1	2223	42	2223	42	138	3	138	3
9.	Maharashtra		5526												
10.	Punjab		100	8	8	8	8	2	2	0	0	30	30	26	26

Annex III (b) (Contd....)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
11.	Rajasthan ***		14684	88	1	88	1	7724	53	7724	53	120	1	130	1				
12.	Telangana	Rabi	694	138	20	138	20	0	0	0	0	0	0	0	0				
13.	Uttar Pradesh		13898	Not Available								50	0.4	50	0.4				
14.	West Bengal *		725	33	5	33	5	Not Available											
Total			65157	1371	2	1371	2	11783	18	11777	18	706	1	672	1				
9. REDGRAM (TUR/ARHAR)																			
1.	Andhra Pradesh		1148	12	1	11	1	Not Available				39	3	39	3				
2.	Bihar	Rabi	616	40	6	40	6	Not Available				38	6	38	6				
3.	Chhattisgarh		494	28	6	28	6	72	15	36	7.3	40	8	40	8				
4.	Gujarat %		2935	17	1	17	1	54	2	54	1.8	42	1	42	1				
5.	Haryana *		360	8	2	8	2	40	11	38	11	Not Available							
6.	Jharkhand \$\$	Rabi	660	18	3	18	3	Not Available				20	3	20	3				
7.	Karnataka		7280	442	6	442	6	835	11	835	11	38	1	34	0				
8.	Madhya Pradesh #		1650	8	0.5	8	0.5	180	11	180	11	78	5	76	5				
9.	Maharashtra		5786	Not Available								98	2	96	2				
10.	Tamil Nadu		336	292	87	292	87	17	5	17	5	Not Available							
11.	Telangana		1296	308	24	308	24	0	0	0	0	40	3	40	3				
12.	Uttar Pradesh		14208	Not Available								60	0.42	60	0.42				
13.	West Bengal *	Rabi	127	11	9	11	9	Not Available											
Total			36896	1184	3	1183	3	1198	3	1160	3	493	1	485	1				
10. GREENGRAM (MOONG)																			
1.	Andhra Pradesh	Kharif	348	5	1	5	1	Not Available				Not Available							
		Rabi	402	6	1	6	1												
2.	Bihar	Kharif	240	Not Available								Not Available							
		Rabi	504																
3.	Gujarat %	Kharif	0	0	0	0	0	0	0	0	0	Not Available							
4.	Karnataka	Kharif	3850	342	9	342	9	541	14	541	14	8	0.2	2	0.1				
		Rabi	110	12	11	12	11	8	7	8	7	Not Available							
5.	Maharashtra	Kharif	6210	Not Available								98	2	25	0.4				
6.	Odisha	Aut.	527	92	17	92	17	125	24	125	24	Not Available							
		Wint.	1127	107	9	107	9	308	27	308	27								
		Sum.	1776	114	6	114	6	345	19	345	19	40	2	40	2				
7.	Rajasthan ***	Kharif	14164	248	2	190	1	13434	95	9312	66	30	32	30	32				
8.	Tamil Nadu	Kharif	132	114	86	114	86	7	5	7	5	16	12	16	12				
		Rabi	308	268	87	268	87	15	5	15	5	40	13	40	13				
9.	Telangana	Kharif	652	176	27	176	27	0	0	0	0	40	6	40	6				
		Rabi	156	36	23	36	23	0	0	0	0	0	0	0	0				
10.	Uttar Pradesh	Kharif	2324	Not Available								Not Available							
		Zaid	600									40	7	40	7				
11.	West Bengal *	Sum.	697	74	11	74	11	Not Available				Not Available							
Total			34127	1594	5	1536	5	14783	43	10661	31	312	1	233	1				

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
11. BLACKGRAM (URD/MATHIKALAI)																			
1.	Andhra Pradesh	Kharif	310	6	2	6	2	Not Available				Not Available							
		Rabi	634	6	1	6	1												
2.	Assam	Rabi	500	98	20	98	20	Not Available				22	4	22	4				
3.	Gujarat %	Kharif	0	Not Available								Not Available							
4.	Jharkhand \$\$		510	Not Available															
5.	Karnataka	Kharif	1150	91	8	91	8	209	18	209	18	Not Available							
		Rabi	130	6	5	6	5	11	8	11	8								
6.	Maharashtra	Kharif	4852	Not Available								72	1	22	0				
7.	Odisha	Aut.	662	80	12	80	12	159	24	159	24	Not Available							
		Wint.	1786	186	10	186	10	288	16	288	16	40	2	40	2				
		Sum.	566	35	6	35	6	110	19	110	19	Not Available							
8.	Rajasthan ***	Kharif	5256	121	2	94	2	4837	92	3597	68	40	0.8	40	0.8				
9.	Tamil Nadu	Kharif	112	97	87	97	87	6	5	6	5	40	36	36	32.1				
		Rabi	312	271	87	271	87	16	5	16	5	40	13	38	12.2				
10.	Telangana	Kharif	204	2	1	2	1	0	0	0	0	0	0	0	0				
		Rabi	114	26	23	26	23	0	0	0	0	0	0	0	0				
11.	Uttar Pradesh	Kharif	14956	Not Available								50	0.3	48	0.3				
		Zaid	700									40	6	40	6				
12.	West Bengal *		1209	52	4	52	4	Not Available											
Total			33963	1077	3	1050	3	5636	17	4396	13	344	1	286	1				
12. LAKH (KHESSARI)																			
1.	Bihar		420	Not Available								Not Available							
2.	Chhattisgarh		440	0	0	0	0	130	30	118	27								
3.	Madhya Pradesh #		220	8	4	8	4	66	30	66	30								
4.	West Bengal		358	11	3	11	3	Not Available											
Total			1438	19	1	19	1	196	14	184	13								
13. MASUR																			
1.	Bihar		980	Not Available								Not Available							
2.	Jharkhand \$\$		720																
3.	Rajasthan ***		1348	21	2	21	2	298	22	298	22	15	0.1	15	0.1				
4.	Uttar Pradesh		16152	Not Available								57	0.4	46	0.3				
5.	West Bengal *		2537	152	6	152	6	1	0.1	1	0.1	Not Available							
Total			21737	173	1	173	1	299	1	299	1	72	0.33	61	0.28				
14. HORSEGRAM (KULTHI)																			
1.	Andhra Pradesh	Kharif	120	5	4	5	4	Not Available											
		Rabi	270	5	2	5	2												
2.	Karnataka	Kharif	2650	107	4	107	4	221	8	221	8	Not Available							
		Rabi	4632	129	3	129	3	275	6	275	6								
3.	Odisha	Wint.	1921	232	12	232	12	267	14	267	14	40	2	40	2				
		Sum.	23	1	4	1	4	1	4	1	4	Not Available							
4.	Tamil Nadu		320	278	87	278	87	16	5	16	5	40	13	40	13				
5.	Telangana	Kharif	0	0	0	0	0	0	0	0	0	0	0	0	0				
		Rabi	0	0	0	0	0	0	0	0	0	0	0	0	0				
Total			9936	757	8	757	8	780	8	780	8	80	1	80	1				

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
15. PEAS																			
1	Jharkhand \$\$							Not Available											
2	Uttar Pradesh		8028			Not Available				Not Available									
3	West Bengal *		314	7	2	7	2	Not Available				Not covered in I.C.S.							
	Total		8342	7	0	7	0.08												
16. MOTH																			
1.	Gujarat %	Kharif	0					Not Available											
2.	Rajasthan ***	Kharif	6812	263	4	104	2	5863	86	3910	57	37	1	41	1				
	Total		6812	263	4	104	2	5863	86	3910	57	37	1	41	1				
17. CHOWLA																			
1.	Rajasthan ***	Kharif	1748	64	4	36	2	2098	120	1308	75	Not covered in I.C.S.							
18. GUAR																			
1.	Gujarat %		186			Not Available				Not covered in I.C.S.									
2	Rajasthan ***		21688	258	1	208	1	19343	89	13361	62	Not covered in I.C.S.							
	Total		21874	258	1	208	1	19343	88	13361	61	Not covered in I.C.S.							
19. SAWAN (JHANGORA)																			
1.	Uttarakhand		620	6	1	6	1	42	7	42	7	Not covered in I.C.S.							
2	Uttar Pradesh	Kharif	70			Not Available				Not covered in I.C.S.									
		Zaid	20																
	Total		710	6	1	6	1	42	6	42	6	Not covered in I.C.S.							
20. KORRA																			
1.	Andhra Pradesh		204	3	1	3	1	Not Available				Not covered in I.C.S.							
2	Telangana		10	3	30	3	30	0	0	0	0	Not covered in I.C.S.							
	Total		214	6	3	6	3	0	0	0	0	Not covered in I.C.S.							
21. KODON-KUTKI (KODRA)																			
1.	Chhattisgarh		288	40	14	36	13	54	19	38	13	40	14	40	14				
2.	Madhya Pradesh #		864	NA				46	5	46	5	38	4	38	4				
3.	Uttar Pradesh (Kodon)		90	Not Available															
	Total		1242	40	3	36	3	100	8	84	7	78	6	78	6				
22. NAVANE																			
1.	Karnataka		730	21	3	21	3	45	6	45	6	Not covered in I.C.S.							
23. SAVE																			
1.	Karnataka		330	26	8	26	8	44	13	44	13	Not covered in I.C.S.							
24. SAMAI																			
1.	Tamil Nadu		100	95	95	95	95	5	5	5	5	Not covered in I.C.S.							
25. VARAGU																			
1.	Tamil Nadu		124	118	95	118	95	6	5	6	5	Not covered in I.C.S.							
26. SUGARCANE																			
1.	Andhra Pradesh		1602	11	1	11	1	Not Available				56	3	54	3				
2.	Assam		700	112	16	112	16	Not Available				34	5	30	4				
3.	Bihar		800	0	0	0	0	Not Available				39	5	39	5				
4.	Goa @		130	Not Planned				Not Planned											
5.	Haryana *		1070	32	3	30	3	70	7	68	6	48	4	42	4				

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
6.	Jharkhand \$\$		240			Not Available													
7.	Karnataka		750	63	8	63	8	85	11	85	11	40	5	38	5				
8.	Kerala		42	17	40	Not Available													
9.	Maharashtra		7666			Not Available						66	1	56	1				
10.	Odisha	Wint.	129	8	6	8	6	5	4	5	4	Not Available							
11.	Punjab		694	2	0.3	2	0.3	84	12	84	12	69	10	69	10				
12.	Rajasthan ***		450	20	4	16	4	301	67	248	55	40	9	40	9				
13.	Tamil Nadu		468	340	73	340	73	78	17	78	17	40	9	37	8				
14.	Telangana		208	24	12	24	12	0	0	0	0	0	0	0	0				
15.	Uttar Pradesh		9612			Not Available						200	2	186	2				
16.	West Bengal *	Rabi	439	38	9	38	9	Not Available											
	Total		25000	667	3	644	3	623	2	568	2	632	3	591	2				
27. COCOA																			
1.	Kerala		793	458	57.8	Not Available						Not covered in I.C.S.							
28. CHILLIES.																			
1.	Andhra Pradesh	Kharif	400	6	2	6	2	Not Available				Not covered in I.C.S.							
		Rabi	402	7	2	7	2												
2.	Bihar		340			Not Available													
3.	Chhattisgarh		26	0	0	0	0	0	0	0	0								
4.	Karnataka	Kharif	770	22	3	22	3	40	5	40	5								
		Rabi	0	0	0	0	0	0	0	0	0								
		Sum.	0	0	0	0	0	0	0	0	0								
5.	Madhya Pradesh #		80			Not Available													
6.	Telangana	Kharif	458	24	5	24	5	0	0	0	0								
		Rabi	198	40	20	40	20	0	0	0	0								
	Total		2674	99	4	99	4	40	1	40	1								
29. CUMIN																			
1.	Gujarat %		8550	285	3	285	3	434	5	343	4	Not covered in I.C.S.							
2.	Rajasthan ***		4888	20	0.41	20	0.41	2392	49	2392	49								
	Total		13438	305	2	305	2	2826	21	2735	20								
30. FENNEL																			
1.	Gujarat % *		350	68	19	68	19	78	22.286	78	22.29	Not covered in I.C.S.							
31. ARECANUT																			
1.	Kerala		1620	612	38	Not Available						40	2	40	2				
2.	Maharashtra		0			Not Available													
	Total		1620	612	38	Not Available						40	2	40	2				

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.S.O.			
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
32. PEPPER															
1.	Kerala			1614	345	21		Not Available				40	2	40	2
33. SAFFRON															
1.	Jammu & Kashmir			114		Not Available		Not Available		Not covered in I.C.S.					
34. TURMERIC															
1	Karnataka			390	9	2		9	2	22	6	22	6		Not covered in I.C.S.
2	Kerala			1553	314	20		314	20	Not Available					
	Total			1943	323	17		323	17	22	1	22	1		
35. GINGER															
1.	Kerala			1442	282	19.6		Not Available							
2.	Meghalaya @			630	35	6		26	4	4	1	4	1		Not covered in I.C.S.
	Total			2072	317	15		26	1	4	0.2	4	0.2		
36. GARLIC															
1.	Gujarat %	Rabi	0		Not Available				Not covered in I.C.S.						
37. CORIANDER															
1.	Rajasthan ***			3176	138	4		138	4	1887	59	1887	59		Not covered in I.C.S.
38. LICHI															
1.	Bihar			300		Not Available				Not covered in I.C.S.					
39. BANANA															
1.	Bihar			500		Not Available									
2	Gujarat %		0	0	0	0	0	0	0	0	0	0	0		Not Available
3	Kerala			2394	454	19		Not Available				50	2	50	2
4	Madhya Pradesh #		138		Not Available										
	Total			3032	454	15		0	0	0	0	0	50	2	50
40. MANGO															
1.	Bihar			600		Not Available									Not covered in I.C.S.
2	Kerala			1620	358	22		Not Available							
	Total			2220	378	17		Not Available							
41. GUAVA															
1.	Bihar			280		Not Available				Not covered in I.C.S.					
42. JACKFRUIT															
1.	Bihar			420		Not Available									Not covered in I.C.S.
2.	Kerala			1618	134	8		Not Available							
	Total			2038	134	7		Not Available							
43. CASHEWNUT															
1.	Kerala			1518	612	40		Not Available							Not covered in I.C.S.
2.	Maharashtra		0		Not Available										
	Total			1518	612	40		0	0	0	0	0	0		

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
44. TAPIOCA																			
1.	Kerala		1593	550	35	489	31	Not Available				40	3	40	3				
45. PINE APPLE																			
1.	Kerala		1552	217	14	Not Available				Not covered in I.C.S.									
46. POTATO																			
1.	Assam		850	152	18	152	18	Not Available				36	4	36	4				
2.	Bihar	Agh.	340	Not Available								Not Available							
		Rabi	424																
3.	Chhattisgarh		150	0	0	0	0	0	0	0	0	0							
4.	Gujarat %	Rabi	1400	100	7	100	7	66	5	66	5								
5.	Jammu & Kashmir	Kh.	324	Not Available				Not Available											
		Rabi	184																
6.	Jharkhand \$\$	Agh.	570	Not Available															
		Rabi	7830	20	0.26	20	0.26	Not Available											
7.	Karnataka	Kh.	590	24	4	24	4	36	6	36	6								
		Rabi	250	22	9	22	9	20	8	20	8								
8.	Madhya Pradesh #	Rabi	432	Not Available															
9.	Meghalaya @	Sum.	312	18	6	13	4	2	1	2	1								
10.	Odisha	Wint.	1452	149	10	149	10	380	26	380	26	34	2	34	2				
11.	Uttar Pradesh	Rabi	21512	Not Available								60	0.3	58	0.3				
Total			36620	485	1	480	1	504	1	504	1	130	0.4	128	0.3				
47. ONION																			
1.	Bihar		424	Not Available															
2.	Chhattisgarh		50	0	0	0	0	0	0	0	0								
3.	Gujarat %		0	0	0	0	0	0	0	0	0								
4.	Jharkhand \$\$		630	Not Available															
5.	Karnataka	Kh.	2290	129	6	129	6	180	8	180	8								
		Rabi	390	16	4	16	4	20	5	20	5								
		Sum.	170	4	2	4	2	6	4	6	4								
6.	Madhya Pradesh #		642	Not Available				Not Available											
7.	Uttar Pradesh	Rabi	70	Not Available															
		Zaid	620																
Total			5286	149	3	149	3	206	4	206	4								
48. BRINJAL																			
1.	Bihar	Agh.	340	Not Available															
		Rabi	340																
2.	Jharkhand \$\$	Agh.	390	Not Available															
		Rabi	480																
3.	Karnataka	Kharif	280	3	1	3	1	9	3	9	3								
Total			1830	3	0.2	3	0.2	9	0.5	9	0.5								
49. TOMATO																			
1.	Bihar	Agh.	140	Not Available								Not covered in I.C.S.							
		Rabi	280																

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by													
				State Statistical Department				Other State Department				N.S.S.O.					
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
2.	Jharkhand \$\$	Agh.	660	Not Available								Not covered in I.C.S.					
		Rabi	540														
3.	Karnataka	Kharif	1590	64	4	64	4	122	8	122	8	Not covered in I.C.S.					
		Rabi	280	16	6	16	6	12	4	12	4						
		Summer	60	0	0	0	0	3	5	3	5						
	Total		3550	80	2	64	2	137	4	137	4						
50. CAULIFLOWER																	
1.	Bihar		340	Not Available								Not covered in I.C.S.					
51. PAPAYA (PAPITA)																	
1.	Madhya Pradesh #		32	Not Available								Not covered in I.C.S.					
52. PLANTAIN																	
1.	Kerala		1622	196	12	Not Available								Not covered in I.C.S.			
53. METHI																	
1.	Rajasthan ***		1768	27	1.5	27	1.5	945	53	945	53	Not covered in I.C.S.					
54. GROUNDNUT																	
1.	Andhra Pradesh	Kharif	2608	70	3	69	3	Not Available				140	5	140	5		
		Rabi	842	40	5	40	5					47	6	47	6		
2.	Chhattisgarh		246	0	0	0	0	40	16	24	10	Not Available					
3.	Goa @	Kharif	80	Not Planned				Not Planned				Not covered in I.C.S.					
		Rabi	80									Not Available					
4.	Gujarat %	Kharif	15505	2246	14	2246	14	4014	26	4014	26	137	1	129	1		
		Sum.	4170	307	7	307	7	152	4	152	4	Not Available					
5.	Karnataka	Kharif	8226	486	6	486	6	865	11	865	11	52	1	26	0.3		
		Rabi	130	16	12	16	12	23	18	23	18	Not Available					
		Sum.	4840	183	4	183	4	270	6	270	6	36	1	30	0.62		
6.	Madhya Pradesh #		954	12	1	12	1	369	39	369	39	38	4	38	4		
7.	Maharashtra	Kharif	2904	Not Available								52	2	41	1		
		Sum.	1486									Not Available					
8.	Odisha	Aut.	1108	84	8	84	8	326	29	326	29	Not Available					
		Wint.	104	16	15	16	15	24	23	24	23						
		Sum.	1367	106	8	106	8	359	26	359	26						
9.	Rajasthan ***		6444	86	1	72	1	4160	65	2952	46	36	0.6	36	0.6		
10.	Tamil Nadu	Kharif	700	609	87	609	87	35	5	35	5	50	7	49	7		
		Rabi	460	400	87	400	87	23	5	23	5	40	9	38	8		
11.	Telangana	Kharif	188	52	28	52	28	0	0	0	0	40	21	38	20		
		Rabi	1154	236	20	236	20	0	0	0	0	0	0	0	0		
12.	Uttar Pradesh		7706	Not Available								Not Available					
13.	West Bengal		611	58	9	58	9	Not Available									
	Total		61913	5007	8	4992	8	10660	17	9436	15	668	1	612	1		
55. SESAMUM (GINGELLY)																	
1.	Andhra Pradesh	Kharif	270	Not Available													
		Rabi	310														
2.	Chhattisgarh		220	0	0	0	0	22	10	12	5	Not Available					
3.	Gujarat %		1138	288	25	288	25	127	11	127	11	37	3	29	3		

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.S.O.			
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4.	Karnataka		1880	85	5	85	5	214	11	214	11				
5.	Kerala		94	27	29			Not Available				Not Available			
6.	Madhya Pradesh #		1476	Not Available				218	15	218	15	34	2	34	2
7.	Maharashtra	Kharif	872	Not Available								Not Available			
		Rabi	0									Not Available			
8.	Odisha	Aut.	192	18	9	18	9	38	20	38	20				
		Wint.	537	95	18	95	18	63	12	63	12				
		Sum.	144	8	6	8	6	25	17	25	17				
9.	Rajasthan ***		6444	118	2	106	2	4626	72	3372	52	58	1	58	1
10.	Tamil Nadu	Kharif	224	195	87	195	87	11	5	11	5	28	13	22	10
		Rabi	256	223	87	223	87	13	5	13	5	40	16	35	14
11.	Telangana	Kharif	56	34	61	34	61	0	0	0	0		0	0	0
		Rabi	180	34	19	34	19	0	0	0	0	0	0	0	0
12.	Uttar Pradesh		13476	Not Available								33	0.24	33	0.24
13.	West Bengal *		3183	274	9	274	9	Not Available				50	2	50	2
	Total		30952	1399	5	1360	4	5357	17	4093	13	280	1	261	1
	56. CASTOR														
1.	Andhra Pradesh		232	Not Available											
2.	Gujarat %		4789	575	12	575	12	518	11	518	11	50	1	50	1
3.	Karnataka		700	16	2	16	2	34	5	34	5				
4.	Telangana		150	80	53	80	53	0	0	0	0	38	25	38	25
	Total		5871	671	11	671	11	552	9	552	9	88	1	88	1
	57. RAPE & MUSTARD														
1.	Assam		1250	172	14	172	14	Not Available				60	5	60	5
2.	Bihar		1064	40	4	40	4					40	4	40	4
3.	Chhattisgarh		416	30	7	30	7	104	25	94	23	30	7	30	7
4.	Gujarat %		3535	256	7	256	7	152	4	152	4	48	1	44	1
5.	Haryana *		1040	32	3	24	2	202	19	174	17	100	10	100	10
6.	Jammu & Kashmir		244	Not Available											
7.	Jharkhand \$\$		7830	Not Available								20	0.26	20	0.26
8.	Madhya Pradesh #		1116	12	1	12	1	547	49	547	49	60	5	58	5
9.		Odisha	Wint.	1694	116	7	116	7	0	0	0	0			
10.	Punjab		566	0	0	0	0	84	15	84	15	40	7	40	7
11.	Rajasthan ***		30268	426	1	426	1	18353	61	18353	61	90	0.30	82	0.27
12.	Uttar Pradesh		28076	Not Available								100	0.4	99	0.4
13.	West Bengal *		5030	605	12	605	12	10	0.2	10	0.2	106	2	106	2
	Total		82129	1689	2	1681	2	19452	24	19414	24	694	1	679	1
	58. LINSEED														
1.	Chhattisgarh		276	40	14	40	14	70	25	66	23.9	40	14	40	14
2.	Jammu & Kashmir		16	Not Available								Not Available			
3.	Karnataka		260	0	0	0	0	4	2	4	2				

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.S.O.			
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
4.	Madhya Pradesh #		920	13	1	13	1	257	28	257	28	74	8	74	8
5.	Maharashtra		172	Not Available								Not Available			
6.	Uttar Pradeshrsh		130	Not Available								Not Available			
7.	West Bengal *		163	Not Available								Not Available			
Total			1937	53	3	53	3	331	17	327	17	114	6	114	6
59. SAFFLOWER															
1.	Karnataka	Rabi	1770	78	4	78	4	181	10	181	10	Not Available			
		Sum.	0	0	0	0	0	0	0	0	0	Not Available			
2.	Maharashtra		1430	Not Available								32	2	8	1
Total			3200	78	2	78	2	181	6	181	6	32	1	8	0.3
60. SUNFLOWER															
1.	Andhra Pradesh	Kharif	196	Not Available								Not Available			
		Rabi	368	Not Available								Not Available			
2.	Haryana *	Rabi	230	Not Available								Not Available			
3.	Karnataka	Kharif	4650	121	3	121	3	311	7	311	7	19	0.41	13	0.28
		Rabi	4238	53	1.3	53	1.3	132	3	132	3	19	0.45	19	0.45
		Sum.	1240	20	2	20	2	12	1	12	1	Not Available			
4.	Maharashtra	Kharif	338	Not Available								Not Available			
		Rabi	184	Not Available								Not Available			
		Sum.	54	Not Available								Not Available			
5.	Tamil Nadu	Kharif	96	83	86	83	86	5	5	5	5	Not Available			
		Rabi	204	178	87	178	87	10	5	10	5	Not Available			
6.	Telangana	Kharif	0	0	0	0	0	0	0	0	0	0	0	0	0
		Rabi	134	28	21	28	21	0	0	0	0	0	0	0	0
7.	Uttar Pradesh	Zaid	170	Not Available								No			
Total			12102	483	4	483	4	470	4	470	4	38	0	32	0.3
61. SOYABEAN															
1.	Andhra Pradesh		78	Not Available								Not Available			
2.	Chhattisgarh		156	0	0	0	0	32	21	20	13	Not Available			
3.	Karnataka		1964	114	6	114	6	203	10	203	10	Not Available			
4.	Madhya Pradesh #		2774	58	2	58	2	978	35	978	35	96	3	96	3
5.	Maharashtra		5258	Not Available								70	1	55	1
6.	Rajasthan ***		8008	74	1	48	1	8431	105	5285	66	8	0.10	8	0.10
7.	Telangana		602	28	5	28	5	0	0	0	0	0	0	0	0
8.	Uttar Pradesh		864	Not Available								Not Available			
Total			19704	274	1	248	1	9644	49	6486	33	174	1	159	1
62. TARA MEERA															
1.	Rajasthan ***		1400	32	2	32	2	978	70	978	70	Not covered in I.C.S.			
63.COCONUT															
1.	Kerala		2430	2122	87	Not Available						50	2	50	2
2.	Maharashtra		0	Not Available								Not Available			
Total			2430	2122	87	Not Available						50	2	50	2

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by															
				State Statistical Department				Other State Department				N.S.S.O.							
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
64. NIGER																			
1.	Maharashtra		346	Not Available															
65. COTTON																			
1.	Andhra Pradesh		952	12	1	12	1	Not Available				40	4	40	4				
2.	Gujarat %		29328	363	1	363	1	2501	9	2501	9	192	1	190	1				
3.	Haryana *		940	16	2	14	1	124	13	122	13	54	6	54	6				
4.	Karnataka	Kharif	3520	136	4	136	4	259	7	259	7	49	1	41	1				
		Rabi	130	0	0	0	0	10	8	10	8	Not covered in I.C.S.							
5.	Madhya Pradesh #		962	18	2	18	2	318	33	318	33	46	5	46	5				
6.	Maharashtra		8510	Not Available								140	2	134	2				
7.	Punjab		680	24	4	24	4	114	17	74	11	72	11	72	11				
8.	Rajasthan ***		6672	148	2	130	2	6626	99	4558	68	36	0.54	36	0.54				
9.	Tamil Nadu	Kharif	564	491	87	491	87	28	5	28	5	50	9	50	9				
		Rabi	256	223	87	223	87	13	5	13	5	40	16	40	16				
10	Telangana		1372	312	23	312	23	0	0	0	0	40	3	39	3				
11	Uttar Pradesh		80	Not Available															
Total			53966	1743	3	1723	3	9993	19	7883	15	759	1	742	1				
66. JUTE																			
1.	Assam		600	108	18	108	18	Not Available				28	5	28	5				
2.	Bihar		200	Not Available															
3.	Meghalaya @		52	Not Available								Not Available							
4.	Odisha	Aut.	40	10	25	10	25	1	3	1	3	Not Available							
5.	West Bengal *		2910	303	10	303	10	16	0.5	16	0.5	75	3	65	2				
Total			3802	421	11	421	11	17	0.4	17	0.4	103	3	93	2				
67. MESTA																			
1.	Andhra Pradesh		200	Not Available															
2.	Bihar		200	Not Available															
3.	West Bengal		222	8	4	8	4	Not Available											
Total			622	8	1	8	1	0	0	0	0	0	0	0	0				
68. TOBACCO																			
1.	Andhra Pradesh		682	Not Available								Not covered in I.C.S.							
2.	Gujarat %		226	34	15	34	15	30	13	30	13								
3.	Karnataka		260	10	4	10	4	8	3	8	3								
4.	Maharashtra		16	Not Available															
5.	Telangana		36	8	22	8	22	0	0	0	0								
6.	Uttar Pradesh	Rabi	100	Not Available															
		Zaid	20	Not Available															
Total			1340	52	4	52	4	38	7	38	3								

Annex III (b) (Contd....)

Sl. No	S T A T E	Season	Number of Expts Planned	No.of Experiments Supervised by											
				State Statistical Department				Other State Department				N.S.S.O.			
				Total	%	At Harvest	%	Total	%	At Harvest	%	Total	%	At Harvest	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
69. ISABGOL															
1.	Gujarat %		168	38	23	38	23	59	35	59	35	Not covered in I.C.S.			
2.	Rajasthan ***		4292	73	2	73	2	1431	33	1431	33				
	Total		4460	111	2	111	2	1490	33	1490	33				
70. AVARE (SEM)															
1.	Karnataka	Kharif	1090	49	4	49	4	76	7	76	7	Not covered in I.C.S.			
		Rabi	10	0	0	0	0	0	0	0	0				
		Summer	70	0	0	0	0	0	0	0	0				
	Total		1170	49	4	49	4	76	6	76	6				
71. COWPEA (LOBIA)															
1.	Goa	Kharif	190	16	8	0	0	0	0	0	0	Not covered in I.C.S.			
		Rabi	190	12	6	2	1	0	0	0	0				
2	Karnataka	Kharif	950	38	4	38	4	46	5	46	5	Not covered in I.C.S.			
		Rabi	0	0	0	0	0	0	0	0	0				
		Summer	70	38	54	0	0	4	6	4	6				
3	Tamil Nadu	Kharif	112	97	87	97	87	6	5	6	5	Not covered in I.C.S.			
		Rabi	112	97	87	97	87	6	5	6	5				
	Total		1624	298	18	234	14	62	4	62	4				
72. TAMARIND															
1	Kerala		1592	282	18	Not Available						Not covered in I.C.S.			
73. NUTMEG															
1	Kerala		1382	841	61	Not Available						Not covered in I.C.S.			
74. BETAL LEAVES															
1	Kerala		705	705	100	Not Available						Not covered in I.C.S.			
75. CABBAGE															
1	Karnataka		100	8	8	8	8	11	11	11	11	Not covered in I.C.S.			
76. BEANS															
1	Karnataka		180	9	5	9	5	23	13	23	13	Not covered in I.C.S.			

Note :- (i) % : Percentage figures given under Col.6, 8, 10, 12, 14 and 16 are based on total figures in col. 4. The data in column 4 have been

excluded for percentage calculation at all India level where data under any of columns 5, 7, 9, 11, 13 and 15 has not been received from concerned States.

(ii)%% : Figures repeated from the year 2015-16.

(iii) # : Figure repeated from the year 2013-14 in respect for crops Banana, Onion & Papaya and all other crops 2015-16 for Madhya Pradesh .

(iv) \$\$: Data repeated from year 2011-12 for crops Linseed, Potato, R&M and Saffron, all other crop repeated from the year 2014-15.

(v) @ : ICS Scheme is not operational & Data of State Statistical Department and Other State Department repeated from the year 2016-17.

(vi). % : Data of State Statistical Department and Other State Department repeated from the year 2016-17.

(vii) * : Data repeated from the year 2015-16

(viii) ** : Figure of State Statistical Department and Other State Department repeated from the year 2015-16.

(ix) *** : Data of State Statistical Department and Other State Department repeated from the year 2016-17.

Annex-III (C) INCIDENCE OF ERRORS, USE OF EQUIPMENT AND DELEGATION OF WORK OF CROP CUTTING EXPERIMENTS DURING 2017-18

S.No.	State	Season	% of expts where no error noticed	% of expts where e4 error	% of expts where e6 error noticed	% of expts where errors noticed (sum of e1 to e8)	% of expts for which primary workers did not use supplied items				% of expts for which the work was delegated	% of expts for which the work was conducted by untrained
							Tape	Pegs	Balance	Weight		
1	2	3	4			5	6	7	8	9	10	11
1	Andhra Pradesh	Kharif	60	5	7	51	10	5	12	12	3	4
		Rabi	64	0	5	38	9	3	9	9	10	16
2	Assam	Early Kharif	75	0	0	25	11	6	10	12	1	0
		Late Kharif	78	0	0	22	16	6	15	15	0	0
		Rabi	56	0	0	44	8	2	9	7	0	0
		Summer	47	0	0	53	17	7	23	23	6	0
3	Bihar	Autumn (Bha.)	54	2	3	53	9	7	9	9	2	12
		Winter (Agh.)	49	0	3	53	24	17	25	25	12	6
		Rabi	55	1	5	46	21	16	20	19	2	36
		Summer	72	0	0	28	6	6	6	6	0	28
4	Chhattisgrah	Kharif	62	4	3	45	31	1	28	14	5	2
		Rabi	70	3	4	37	27	7	29	12	1	0
5	Gujarat	Kharif	64	0	4	39	47	3	39	38	0	0
		Rabi	65	2	3	42	41	2	39	39	1	18
6	Haryana	Kharif	81	0	1	19	31	9	17	15	0	0
		Rabi	87	0	3	13	31	13	18	17	5	4
7	Himachal Pradesh	Kharif	69	6	14	46	40	21	44	37	2	2
		Rabi	59	2	12	57	32	21	38	27	1	1
8	Jammu & Kashmir	Kharif	10	31	13	148	11	0	6	7	7	12
		Rabi	35	6	0	80	14	5	14	14	4	0
9	Jharkhand	Early Kharif	66	0	0	34	13	6	6	6	3	50
		Late Kharif	59	0	2	42	21	10	10	5	11	21
		Rabi	51	3	1	53	15	11	12	12	5	28
10	Karnataka	Kharif	59	2	3	47	14	3	15	13	0	0
		Rabi	40	6	11	80	9	0	6	3	1	1
		Summer	61	4	4	46	20	15	15	13	1	0
11	Kerala	Autumn	93	0	3	8	6	12	8	6	1	0
		Winter	86	0	0	15	4	19	8	7	0	0
		Summer	68	0	0	32	2	6	6	5	0	0
12	Madhya Pradesh	Kharif	53	4	2	52	37	25	48	45	2	6
		Rabi	80	3	2	22	35	31	53	52	1	7
13	Maharashtra	Kharif	30	31	20	117	19	9	12	11	0	4
		Rabi	34	1	22	101	32	11	22	14	0	0
14	Odisha	Autumn	91	0	1	9	4	5	8	5	0	0
		Winter	97	0	1	0	0	0	1	0	0	0
		Summer	92	2	1	9	1	3	1	1	0	0
15	Punjab	Kharif	36	1	8	71	10	2	3	3	0	0
		Rabi	58	1	4	45	8	2	3	2	0	0
16	Rajasthan	Kharif	50	3	20	63	34	23	27	26	2	5
		Rabi	46	1	22	64	26	19	22	23	1	3
17	TamilNadu	Kharif	57	1	13	50	20	33	23	21	2	0
		Rabi	69	1	11	37	21	29	23	19	2	0
18	Telangana	Kharif	62	1	3	49	13	6	16	16	3	10
		Rabi	64	1	2	41	14	1	13	13	7	0
19	Uttar Pradesh	Kharif	40	13	19	90	25	6	21	18	16	38
		Rabi	28	9	16	83	13	12	14	21	17	36
		Zaid Rabi	1	0	14	113	26	2	19	19	0	51
20	Uttarakhand	Kharif	41	5	25	67	16	16	22	23	0	0
		Rabi	41	35	24	110	24	32	39	39	2	2
21	West Bengal #	Aus.	89	0	0	11	3	1	5	5	1	30
		Aman	48	0	0	55	7	6	8	8	0	1
		Rabi	74	5	4	31	5	0	6	6	0	14
		Summer	72	2	1	27	0	0	0	0	0	1

S.No.	State	Season	% of expts where no error noticed	% of expts where e4 error noticed	% of expts where e6 error noticed	% of expts where errors noticed (sum of e1 to e8)	% of expts for which primary workers did not use supplied items				% of expts. for which the work was delegated	% of expts. for which the work was conducted by untrained workers
							Tape	Pegs	Balance	Weight		
1	2	3	4	5	6	7	8	9	10	11		
22	Puducherry	Kharif	50	0	10	50	0	0	5	0	0	0
		Rabi I	60	0	0	40	0	0	0	0	0	0
		Rabi II	65	0	20	45	0	0	5	0	10	0
For States Covered		All Seasons	58	5	8	53	20	11	19	18	3	8

Note :-

1. e₁ = Error in selection of survey/sub-survey nos.
2. e₂ = Error in selection of field within survey/sub-survey nos.
3. e₃ = Error in measurement of field.
4. e₄ = Error in selection of random nos., location and marking of plots.
5. e₅ = Error in weighment of produce.
6. e₆ = Error in reporting ancillary information.
7. e₇ = Inadequate arrangements for storing of produce for driegue and incorrect reporting of constituents in crop mixture.
8. e₈ = Others.
9. \$ = In Kerala whole year data has been included in Summer season.
10. @ = For the year as a whole (total of all seasons).
11. # = ISI Equipments in place of Tape.
12. Sum total of percentages of Col. (4) and (5) can exceed 100% as in one experiment (more than one error may occur).

ANNEX - IV(a):- RESPONSE UNDER CROP ESTIMATION SURVEY 2017-18

Sl. No.	S T A T E	Kharif						Rabi						T O T A L		
		Food Crops			Non-Food Crops			Food Crops			Non-Food Crops					
		No. of Experiments			No. of Experiments			No. of Experiments			No. of Experiments			No. of Experiments		
		Planned	Analyse d	Respo nse %	Planned	Analyse d	Respo nse %	Planned	Analyse d	Respo nse %	Planned	Analyse d	Respo nse %	Planned	Analysed	Respo nse %
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Andhra Pradesh	9036	8930	99	4536	4434	98	7236	7028	97	2202	1964	89	23010	22356	97
2.	Assam	5700	4600	81	600	517	86	3700	2956	80	1250	1088	87	11250	9161	81
3.	Bihar	45561	43001	94	400	164	41	50833	47427	93	1064	1018	96	97858	91610	94
4.	Chhattisgarh	3346	2534	76	622	448	72	2026	1378	68	692	434	63	6686	4794	72
5.	Goa	510	299	59	80	20	25	380	305	80	80	42	53	1050	666	63
6.	Gujarat	25665	23303	91	50760	46417	91	69622	65371	94	8099	6622	82	154146	141713	92
7.	Haryana *	4096	3470	85	940	908	97	3278	3049	93	1270	1056	83	9584	8483	89
8.	Himachal Pradesh	4468	3468	78	NOT PLANNED			3826	2986	78	NOT AVAILABLE			8294	6454	78
9.	Jammu & Kashmir	3180	2240	70				2140	1650	77	260	192	74	5580	4082	73
10.	Jharkhand	28770	23457	82	NOT AVAILABLE			36210	23612	65	7830	4860	62	72810	51929	71
11.	Karnataka	65830	56426	86	20940	15891	76	39998	31196	78	12868	6114	48	139636	109627	79
12.	Kerala	27872	27855	100	2524	2524	100	1678	1668	99	705	705	100	32779	32752	100
13.	Madhya Pradesh #	9268	7828	84	6166	5385	87	13240	11118	84	2036	1798	88	30710	26129	85
14.	Maharashtra	37962	36097	95	18228	17513	96	22988	22319	97	3342	2477	74	82520	78406	95
15.	Meghalaya	1674	1624	97	52	52	100	312	288	92	NOT AVAILABLE			2038	1964	96
16.	Odisha	36147	36147	100	1981	1981	100	6098	6098	100	3205	3205	100	47431	47431	100
17.	Punjab	3034	3012	99	680	680	100	2672	2670	100	566	566	100	6952	6928	100
18.	Rajasthan	102710	97570	95	27568	24349	88	71352	64961	91	35960	31699	88	237590	218579	92
19.	Tamil Nadu	4168	4152	100	1584	1430	90	2572	2542	98.83	1176	1160	98.64	9500	9284	98
20.	Telangana	6570	6566	100	2368	2368	100	5482	5482	100	1504	1486	99	15924	15902	100
21.	Uttarakhand	4692	4610	98	NOT AVAIL			3630	3596	99	NOT AVAILABLE			8322	8206	99
22.	Uttar Pradesh	303154	296810	98	22126	21526	97	288828	286256	99	28496	27801	98	642604	632393	98
23.	West Bengal *	17432	16398	94	3132	2774	89	19399	17691	91	8987	7789	87	48950	44652	91
24.	Dadra & Nagar Haveli	100	100	100	NOT PLANNED									100	100	100
25.	Daman & Diu	28	28	100										28	28	100
26.	Puducherry	98	98	100		NOT AVAIL		210	210	100	NOT AVAILABLE			308	308	100
	Total	751071	710623	95	165287	149381	90	657710	611857	93	121592	102076	84	1695660	1573937	93

Note :-

1. # : Figure repeated from the year 2013-14 in respect for corp Banana, Onion & Papaya and all other crops 2015-16 for Madhya Pradesh.

2. * : Data repeated from the year 2015-16

ANNEX-IV (b) :REASONS FOR LOSS OF EXPERIMENTS UNDER CROP ESTIMATION SURVEY DURING 2017-18

Sl.N o.	S T A T E	Food / Non Food Crops	No. of Expts.		No. of Expts. not conducted due to							Rejected by statistician due to					Total Cols. (12)+ (18)+ (19)		
			Planned	Analysed	A	B	C	D	E	F	Sub Total	P	Q	R	S	T	Sub Total	U	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	Andhra Pradesh	Food	16272	15958	0	0	0	0	0	314	314	0	0	0	0	0	0	0	314
		% age	98							1.9							0.0	0.0	1.9
		Non Food	6738	6398	0	0	0	0	0	340	340	0	0	0	0	0	0	0	340
		% age	95.0							5.0							0.0	0.0	5.0
		Total	23010	22356	0	0	0	0	0	654	654	0	0	0	0	0	0	0	654
		% age	97							2.8							0.0	0.0	2.8
2.	Assam	Food	9400	7556	0	0	0	512	0	1120	1632	0	0	0	0	212	212	0	1844
		% age	80							17							2		20
		Non Food	1850	1605	0	0	0	30	0	162	192	0	0	0	0	53	53	0	245
		% age	87							10							3		13
		Total	11250	9161	0	0	0	542	0	1282	1824	0	0	0	0	265	265	0	2089
		% age	81.4							16.2							2.4	0.0	18.6
3.	Bihar	Food	96394	90428	0	0	0	0	0	5966	5966	0	0	0	0	0	0	0	5966
		% age	93.8							6.2							0.0	0.0	6.2
		Non Food	1464	1182	0	0	0	0	0	282	282	0	0	0	0	0	0	0	282
		% age	80.7							19.3							0.0	0.0	19.3
		Total	97858	91610	0	0	0	0	0	6248	6248	0	0	0	0	0	0	0	6248
		% age	93.6							6.4							0.0	0.0	6.4
4.	Chhattisgarh	Food	5372	3912	0	0	0	0	0	1460	1460	0	0	0	0	0	0	0	1460
		% age	72.8	0						27.2							0.0		27.2
		Non Food	1314	882	0	0	0	0	0	432	432	0	0	0	0	0	0	0	432
		% age	67.1							32.9							0.0		32.9
		Total	6686	4794	0	0	0	0	0	1892	1892	0	0	0	0	0	0	0	1892
		% age	71.7							28.3							0.0	0.0	28.3
5.	Goa	Food	890	604	0	0	0	0	0	286	286	0	0	0	0	0	0	0	286
		% age	67.9							32.1							0.0		32.1
		Non Food	160	62	0	0	0	0	0	98	98	0	0	0	0	0	0	0	0
		% age	38.8							9.9							0.0		9.9
		Total	1050	666	0	0	0	0	0	384	384	0	0	0	0	0	0	0	286
		% age	63.4							36.6							0.0	0.0	27.2
6.	Gujarat	Food	95287	88674	0	0	0	0	0	6613	6613	0	0	0	0	0	0	0	6613
		% age	93.1							6.9							0.0		6.9
		Non Food	58859	53039	0	0	0	0	0	5820	5820	0	0	0	0	0	0	0	5820
		% age	90.1							9.9							0.0		9.9
		Total	154146	141713	0	0	0	0	0	12433	12433	0	0	0	0	0	0	0	12433
		% age	91.9							8.1							0.0	0.0	8.1
7.	Haryana *	Food	7374	6519	0	0	0	0	0	108	108	0	0	0	0	0	0	0	747
		% age	88.4							1.5							0.0	10.1	11.6
		Non Food	2210	1964	0	0	0	0	0	16	16	0	0	0	0	0	0	300	316
		% age	88.9							0.7							0.0	13.6	14.3
		Total	9584	8483	0	0	0	0	0	124	124	0	0	0	0	0	0	1047	1171
		% age	88.5							1.3							0.0	10.9	12.2
8.	Himachal Pradesh	Food	8294	6454	0	0	0	0	0	1840	1840	0	0	0	0	0	0	0	1840
		% age	77.8							22.2							0.0		22.2
		Non Food	Not Available																
		% age																	
		Total	8294	6454	0	0	0	0	0	1840	1840	0	0	0	0	0	0	0	1840
		% age	77.8							22.2							0.0	0.0	22.2
9.	Jammu & Kashmir	Food	5320	3890	0	0	0	234	0	1196	1430	0	0	0	0	0	0	0	1430
		% age	73.1							26.9							0.0		26.9
		Non Food	260	192	0	0	0	12	0	56	68	0	0	0	0	0	0	0	68
		% age	73.8							26.2							0.0		26.2
		Total	5580	4082	0	0	0	246	0	1252	1498	0	0	0	0	0	0	0	1498
		% age	73.2							26.8							0.0	0.0	26.8
10.	Jharkhand	Food	64980	47069	0	0	0	0	0	17911	17911	0	0	0	0	0	0	0	17911
		% age	72.4							27.6							0.0		27.6
		Non Food	7830	4860	0	0	0	0	0	2970	2970	0	0	0	0	0	0	0	2970
		% age	62.1							37.9							0.0		37.9
		Total	72810	51929	0	0	0	0	0	20881	20881	0	0	0	0	0	0	0	20881
		% age	71.3							28.7							0.0	0.0	28.7

ANNEX IV (b) (Contd....)

Sl. No.	S T A T E	Food / Non-Food Crops	No. of Exps ^a Expts. not conducted due to								Rejected by statistician due to								Total Cols. (12)+ (18)+ (19)	
			Planned	Analysed	A	B	C	D	E	F	Sub Total	P	Q	R	S	T	Sub Total	U		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
11.	Karnataka	Food	105828	87622	0	0	0	0	0	18266	18266	0	0	0	0	0	0	0	18266	
		% age	82.8							17.3							0.0	0.0	17.3	
		Non Food	33808	22005	0	0	0	0	0	11803	11803	0	0	0	0	0	0	0	11803	
		% age	65.1							34.9							0.0	0.0	34.9	
		Total	139636	109627	0	0	0	0	0	30069	30069	0	0	0	0	0	0	0	30069	
		% age	78.5							21.5							0.0	0.0	21.5	
12.	Kerala	Food	29550	29523	0	0	0	0	0	27	27	0	0	0	0	0	0	0	27	
		% age	99.9							0.1							0.0	0.1		
		Non Food	3229	3229	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0		
		Total	32779	32752	0	0	0	0	0	27	27	0	0	0	0	0	0	0	27	
		% age	99.9							0.1							0.0	0.0	0.1	
13.	Madhya Pradesh #	Food	22508	18946	0	0	226		0	2930	3156	0	0	0	0	0	0	0	406	3562
		% age	84.2							14.0							0.0	0.0	15.8	
		Non Food	8202	7183	0	0	74	0	0	747	821	0	0	0	0	0	0	198	1019	
		% age	87.6							10.0							0.0	0.0	12.4	
		Total	30710	26129	0	0	300	0	0	3677	3977	0	0	0	0	0	0	604	4581	
		% age	85.1							13.0							0.0	2.0	14.9	
14.	Maharashtra	Food	60950	58416	0	0	275	0	0	1839	2114	261	0	0	0	159	420	0	2534	
		% age	95.8							3.5							0.7	4.2		
		Non Food	21570	19990	0	0	115	0	0	1356	1471	53	0	0	0	56	109	0	1580	
		% age	92.7							6.8							0.5	7.3		
		Total	82520	78406	0	0	390	0	0	3195	3585	314	0	0	0	215	529	0	4114	
		% age	95.0							4.3							0.6	0.0	5.0	
15.	Meghalaya	Food	1986	1912	0	0	0	0	0	74	74	0	0	0	0	0	0	0	74	
		% age	96.3							3.7							0.0	0.0	3.7	
		Non Food	52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0		
		Total	2038	1964	0	0	0	0	0	74	74	0	0	0	0	0	0	0	74	
		% age	96.4							3.6							0.0	0.0	3.6	
16.	Odisha	Food	42245	42245	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0		
		Non Food	5186	5186	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0		
		Total	47431	47431	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0	0.0	
17.	Punjab	Food	5706	5682	0	0	0	0	0	24	24	0	0	0	0	0	0	0	24	
		% age	99.6							0.4							0.0	0.4		
		Non Food	1246	1246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100.0							0.0							0.0	0.0		
		Total	6952	6928	0	0	0	0	0	24	24	0	0	0	0	0	0	0	24	
		% age	99.7							0.3							0.0	0.0	0.3	
18.	Rajasthan	Food	174062	162531	0	0	0	0	11531	0	11531	0	0	0	0	0	0	0	11531	
		% age	93.4							6.6							0.0	0.0	6.6	
		Non Food	63528	56048	0	0	0	0	7480	0	7480	0	0	0	0	0	0	0	7480	
		% age	88.2							11.8							0.0	0.0	11.8	
		Total	237590	218579	0	0	0	0	19011	0	19011	0	0	0	0	0	0	0	19011	
		% age	92.0							8.0							0.0	0.0	8.0	
19.	Tamil Nadu	Food	6740	6694	46	0	0	0	0	0	46	0	0	0	0	0	0	0	46	
		% age	99.3							0.7							0.0	0.7		
		Non Food	2760	2590	170	0	0	0	0	0	170	0	0	0	0	0	0	0	170	
		% age	93.8							6.2							0.0	0.0	6.2	
		Total	9500	9284	216	0	0	0	0	0	216	0	0	0	0	0	0	0	216	
		% age	97.7							2.3							0.0	0.00	2.3	
20.	Telangana	Food	12052	12048	0	0	0	0	0	4	4	0	0	0	0	0	0	0	4	
		% age	100.0							0.0							0.0	0.0		
		Non Food	3872	3854	0	0	0	0	0	18	18	0	0	0	0	0	0	0	18	
		% age	99.5							0.5							0.0	0.5		
		Total	15924	15902	0	0	0	0	0	22	22	0	0	0	0	0	0	0	22	
		% age	99.9							0.1							0.0	0.00	0.1	

ANNEX IV (b) (Contd....)

Sl. No.	S T A T E	Food / Non-Food Crops	No. of Expts.		No. of Expts. not conducted due to							Rejected by statistician due to							Total Cols. (12)+ (18)+ (19)	
			Planned	Analysed	A	B	C	D	E	F	Sub Total	P	Q	R	S	T	Sub Total	U		
21.	Uttarakhand	Food	8322	8206	0	0	0	0	0	90	90	0	0	0	0	26	26	0	116	
		% age	98.6								1.1							0.3	1.4	
		Not Available																		
		Total	8322	8206	0	0	0	0	0	90	90	0	0	0	0	26	26	0	116	
		% age	98.6								1.1							0.3	1.4	
22.	Uttar Pradesh	Food	591982	583066	0	0	0	0	0	8916	8916	0	0	0	0	0	0	0	8916	
		% age	98.5								1.5							0.0	1.5	
		Non Food	50622	49327	0	0	0	0	0	1295	1295	0	0	0	0	0	0	0	1295	
		% age	97.4								2.6							0.0	2.6	
		Total	642604	632393	0	0	0	0	0	10211	10211	0	0	0	0	0	0	0	10211	
		% age	98.4								1.6							0.0	1.6	
23.	West Bengal*	Food	36831	34089	0	0	0	1409	0	1309	2718	0	0	0	24	0	24	0	2742	
		% age	92.6								7.4							0.1	0.0	7.4
		Non Food	12119	10563	0	0	0	1556	0	0	1556	0	0	0	0	0	0	0	1556	
		% age	87.2								12.8							0.0	12.8	
		Total	48950	44652	0	0	0	2965	0	1309	4274	0	0	0	24	0	24	0	4298	
		% age	91.2								8.7							0.0	0.00	8.8
24.	Dadra & Nagar Haveli	Food	100	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100								0.0							0.0	0.0	
		Non Food									0.0							0.0	0.0	
		% age	100								0.0							0.0	0.0	
25.	Daman & Diu	Food	28	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100								0.0							0.0	0.0	
		Non Food									0.0							0.0	0.0	
		% age	100								0.0							0.0	0.0	
26.	Puducherry	Food	308	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100								0.0							0.0	0.0	
		Non Food									0.0							0.0	0.0	
		% age	100								0.0							0.0	0.0	
		Not Available																		
		Total	308	308	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		% age	100								0.0							0.0	0.0	
		Grand Total %	Food	1408781	1322480	46	0	501	2155	11531	70293	84526	261	0	0	24	397	682	1153	86361
		% age	93.9								6.0							0.0	0.1	6.1
		Non Food	286879	251457	170	0	189	1598	7480	25395	34832	53	0	0	0	109	162	498	35492	
		% age	87.7								12.1							0.1	0.2	12.4
		Total	1695660	1573937	216	0	690	3753	19011	95688	119358	314	0	0	24	506	844	1651	121853	
		% age	92.8	0.2	0.0	1.7	3.9	5.1	9.6	11.7	0.2	0.0	0.0	0.0	0.0	0.2	0.2	2.0	10.8	

Note : Sum total of percentages in Col. (5), (12), (18) and (19) may not always be 100.

1. % : Percentage figures given under Col. 5 to 20 are based on total figures in col. 4. The data in column 4 have been excluded for percentage calculation at all India level where data under any of columns from 5 to 20 has not been received from concerned States.

A - Primary worker being absent, on leave, transfer etc.

B - Primary worker not attending the work due to other assignments.

C - Primary worker not attending the work due to other reasons.

D - Prior harvest by cultivators.

E - Crop not available.

F - Other reasons.

P - Incomplete data.

Q - Discrepant data.

R - Unreliable data.

S - Late receipt of returns.

T - Other reasons.

U - Experiments for which reasons for non inclusion in analysis are not known.

2.# : Figure repeated from the year 2013-14 in respect of crops Banana, Onion, Papaya and all other crops 2015-16 for Madhya Pradesh.

3.%% : Figures repeated from the year 2015-16 for all the crops for Karnataka.

4.* : Data repeated from the year 2015-16.

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
		1	2	3	4	6	8	10		
1. RICE										
1.	Andhra Pradesh	(KharifIr.)	1410	96	3576	3576	100	5116	0.5	7211
		(KharifUL.)	67	74	228	228	100	2989	2.0	21
		Comb.	1477	95	3804	3804	100	5019	0.5	7232
		(Rabi.Ir.)	741	89	2994	2960	99	7122	0.5	5279
2.	Assam	(Aut.)	152	100	2000	1122	56	1377	1.3	209
		(Wint.)	1879	100	3000	2948	98	2098	0.6	3883
		Sum	400	100	1500	1122	75	2975	0.8	1191
3.	Bihar @	(Bha.Ir)	196	80	560	242	43	2631	N.A.	516
		(Bha.UI.)	327	81	392	194	49	2569	N.A.	839
		Comb.	523	81	952	436	46	2592	N.A.	1355
		(Agh.Hyv.Ir.)	1361	100	23280	22608	97	4829	N.A.	6572
		(Agh.Hyv.UI.)	393	100	5880	5776	98	2537	N.A.	997
		(Agh.Lv.Ir.)	578	100	10345	10092	98	3672	N.A.	2123
		(Agh.Lv.UI.)	384	100	1760	1760	100	2282	N.A.	876
		Comb.	2716	100	41265	40236	98	3891	N.A.	10569
		(Gar.Hyv.)	54	97	300	158	53	3388	N.A.	181
		(Gar.Lv.)	14	97	140	90	64	2399	N.A.	34
4.	Chhattisgarh	Comb.	68	97	440	248	56	3179	N.A.	216
		(Ir.)	1258	93	1062	854	80	1819	1.8	2288
		(UI.)	2537	84	964	742	77	1122	1.6	2687
		Comb.	3795	87	2026	1596	79	1353	1.2	4975
5.	Goa	Kharif	27	100	190	190	100	2619	N.A.	71
		Rabi	11	100	190	157	83	2807	N.A.	32
6.	Gujarat %	(Ir.)	595	100	10766	9654	90	3636	1	2163
		(UI.)	208	100	2355	2240	95	2218	9	461
		Comb.	803	100	13121	11894	91	3269	2	2624
		Sum	53	86	200	187	94	3997	N.A.	210

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
7.	Haryana ###	Kharif	1206	76	990	864	87	3268	1.6	3941
8.	Himachal Pradesh \$\$\$		72	73	1898	1200	63	2193	2.1	141
9.	Jammu & Kashmir	(Plain)					N.A.			
		(Hills)					N.A.			
		Comb.	273	37	1362	1054	77	3375	3	100
10.	Jharkhand	(Bha.)	138	N.A.	600	452	75	1675	N.A.	231
		(Agh.Hyv.Ir.)					N.A.			
		(Agh.Hyv.UI.)	1204	N.A.	17520	14869	85	3265	N.A.	3932
		(Agh.Lv.Ir.)					N.A.			
		(Agh.Lv.UI.)					N.A.			
		Comb.	1342	N.A.	18120	15321	85	2108	N.A.	4163
11.	Karnataka % %	(KharifHyv.Ir.)								
		(KharifHyv.UI.)					N.A.			
		(KharifTra.Ir.)								
		(KharifTra.UI.)								
		Comb.	734	86	12972	11215	86	4594	1.3	3204
		(Rabi Hyv.Ir.)					N.A.			
		(Rabi Tra. Ir.)								
		Comb.	18	100	1482	1037	70	3944	3.9	69
		(Sum.)	223	100	3528	2409	68	5034	2.8	1065
12.	Kerala	(Aut.)	58	2	2629	2621	100	2555	2.7	149
		(Wint.)	81	3	3288	3279	100	2699	1.9	219
		Sum	50	2	1678	1668	99	3089	2.4	153
13.	Madhya Pradesh ***	(Hyv. Ir.)	507	93	790	682	86	2063	20.6	1046
		(Lv. Ir.)	190	96	560	396	71	2008	8.2	321
		Comb.	697	94	1350	1078	80	2048	15.3	1367
		(UI.)	1238	90	1410	1238	88	608	2.9	753
		Comb.	1935	91	2760	2316	84	1127	10.0	2120
14.	Maharashtra *	(Ir.)								
		(UL.)					N.A.			
		(Comp.)								
		Comb.	1425	N.A.	4080	3971	97	1873	0.9	2572
		Sum	26	93	462	449	97	2376	1.9	76
15.	Meghalaya	(Aut.)	33	74	290	250	86	1519	0.01	78
		(Wint.)	62	100	754	752	100	1849	0.004	159

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)		
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d						
1	2	3	4	5	6	7	8	9	10		
16.	Odisha	(Aut.)	530	100	7391	7391	100	1088	1.3	577	
		(Wint.)	3014	100	17444	17444	100	1751	0.4	5279	
		Sum	222	100	3425	3425	100	3133	1.6	695	
17.	Punjab	Kharif	3065	100	1980	1970	99	4366	N.A.	13382	
18.	Rajasthan #	Kharif	191	99	3580	2616	73	3548	0.8	676	
19.	Tamil Nadu	(K/K/S)	235	97	428	428	100	3854	1.5	907	
		(S/T/P)	1317	100	1260	1260	100	3414	1.9	4497	
		(N/K)	276	90	300	300	100	4468	2.1	1235	
		Comb.	1829	98	1988	1988	100	3630	1.3	6638	
20.	Telangana	(KharifIr.)	1026	71	1790	1790	100	2826	0.9	2899	
		(KharifUL)	21	70	104	104	100	2237	3.5	47	
		Comb.	1047	71	1894	1894	100	2814	0.8	2946	
		(Rabi.Ir.)	915	72	2096	2096	100	3624	0.7	3317	
20.	Uttarakhand	Kharif	239	100	2962	2924	99	2261	0.9	606	
21.	Uttar Pradesh	Kharif	5898	100	187250	185372	99	2618	N.A.	15442	
22.	West Bengal %%	(Aus.)	248	100	2281	2011	88	2590	1.2	642	
		(Aman)	3963	100	13308	12739	96	2774	0.5	10997	
		Comb.	4211	100	15589	14750	95	2763	0.4	11639	
		Sum	1185	100	11674	10891	93	3379	0.7	863	
23.	Dadra & Nagar Haveli	Kharif	13	30	78	78	100	1890	5.4	25	
24.	Daman & Diu	Kharif	1.8	89	20	20	100	1833	0.1	3	
25.	Puducherry	(I)	4	100	98	98	100	3265	3.2	13	
		(II)	8	100	140	140	100	2718	2.8	21	
		(III)	4	100	70	70	100	3453	3.5	15	
TOTAL		Kharif	38360	88	355475	341314	96	2707	0.4	103757	
		Rabi/Sum.	4201	90	30179	27159	90	4195	0.4	14436	
		Comb.	42561	88	385654	368473	96	2854	0.3	118193	

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
2. JOWAR										
1.	Andhra Pradesh	Kharif	30	70	178	178	100	1114	6.1	33
		Rabi	110	67	482	430	89	2750	2.0	302
2.	Chhattisgarh	Kharif	4	59	70	42	60	1339	35.9	5
		Kharif	67	95	536	312	58	1393	N.A.	93
3.	Gujarat %	Kharif	24	89	290	272	94	1321	N.A.	32
		(Kharif Hyv.Ir.)								
4.	Karnataka %%	KharifHyv.Ir.)								
		(Kharif Hyv.) Ir. & UI.								
5.	Madhya Pradesh ***	Kharif	92	27	3584	2442	68	1662	4.1	145
		(Rabi Hyv.Ir.)								
6.	Maharashtra *	Comb.	(Rabi Hyv.Ir. & UI.)							
		(Rabi Tra.Ir.)								
7.	Rajasthan #	(Rabi.Tra. Ir. & UI.)								
		Comb.								
8.	Tamil Nadu	Kharif	992	73	10270	8885	87	1139	1.3	1073
		(Sum.Hyv.Ir.)	0.8	100	40	32	80	2242	18.4	1.75
9.	Telangana	Kharif	190	90	1746	1378	79	1491	2.2	283
		(Rabi Ir.)								
10.	Uttar Pradesh	(Rabi UI.)								
		Comb.Rabi	2899	N.A.	8512	8156	96	636	0.7	1842
11.	West Bengal	Kharif	516	99	11032	11030	100	583	1.1	301
		(Rabi UI.)								
12.	Jharkhand	Comb.	241	99	440	440	100	1139	3.8	275
		(Rabi UI.)								
13.	Bihar	Kharif	144	99	640	634	99	1079	3.2	156
		(Rabi UI.)								
14.	Assam	Comb.	386	99	1080	1074	99	1117	2.7	431
		(Rabi UI.)								
15.	Nagaland	Kharif	43	69	372	372	100	944	3.8	41
		(Rabi UI.)								
16.	Sikkim	Kharif	24	68	390	390	100	1351	3.4	33
		(Rabi UI.)								

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1 2 3 4 5 6 7 8 9 10										
10.	Uttar Pradesh	Kharif	169	88	9320	8115	87	1270	N.A.	215
T O T A L		Kharif	1917	83	31538	27898	88	1083	0.8	1938
		Rabi/Sum.	4193	23	20624	18799	91	834	0.6	3440
		Comb.	6111	42	52162	46697	90	912	0.5	5379
3. BAJRA										
1.	Andhra Pradesh	Kharif	43	69	488	470	96	1912	3.5	83
2.	Gujarat %	Kharif	153	99	2035	1562	77	1682	N.A.	252
		Sum	303	96	13994	12910	92	2919	N.A.	713
3.	Haryana ###	Kharif	370	68	1532	1438	94	1762	1	652
4.	Karnataka % %	(Kharif Hyv.Ir.)								
		(Kharif Hyv.UI)								
		(Kharif Tra.)								
		Comb.	226	89	3886	3015	78	1620	2.6	347
5.	Madhya Pradesh ***	Kharif	233	99	320	302	94	1575	3.5	366
6.	Maharashtra *	(Ir.)								
		(UI.)								
		(Comp.)								
		Comb.	788	N.A.	3488	3252	93	849	N.A.	1122
7.	Rajasthan #	Kharif	4236	100	25948	25317	98	886	1.7	3752
8.	Tamil Nadu	Kharif	46	97	240	240	100	2356	6.0	108
		Rabi	17	94	204	204	100	2065	4.9	35
		Comb.	63	96	444	444	100	2278	4.7	144
9.	Telangana	Kharif	1	50	52	52	100	1057	14.2	1
10.	Uttar Pradesh	Kharif	925	99	36368	35962	99	1940	N.A.	1795
11.	Daman & Diu	Kharif	0.4	100	8	8	100	1333	4.88	0.6
T O T A L		Kharif.	7021	86	74365	71618	96	1147	1.1	8479
		Rabi/Sum.	320	96	14198	13114	92	2874	-	748
		Comb.	7341	87	88563	84732	96	1222	1.0	9227

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
4. MAIZE										
1.	Andhra Pradesh	Kharif	107	47	234	234	100	4678	2.7	502
		Rabi	229	59	554	518	94	7956	2.0	1824
2.	Bihar @	(Bha.Hyv.)	97	72	560	443	79	2548	N.A.	248
		(Bha. Lv.)	126	68	700	550	79	2287	N.A.	288
		Comb.	223	70	1260	993	79	2401	N.A.	536
		Rabi	268	82	760	358	47	6138	N.A.	1646
		(Gar.Hyv.)	154	79	380	260	68	5241	N.A.	805
		(Gar.Lv.)	33	95	120	72	60	4136	N.A.	135
		Comb.	186	82	500	332	66	5047	N.A.	939
3.	Chhattisgarh	Kharif	133	75	468	354	76	2566	3.2	323
4.	Gujarat %	Kharif	303	95	6615	6459	98	1551	N.A.	470
5.	Haryana ###	Kharif	6	7	144	88	61	3000	12.6	18
6.	Himachal Pradesh \$\$\$	Kharif	281	100	2570	2268	88	2971	1.2	751
7.	Jammu & Kashmir	(Plain)								N.A.
		(Hills)								N.A.
		Comb.	303	41	1380	1012	73	1943	5	55
8.	Jharkhand	(Bha.)	124	N.A.	7830	6102	78	2172	N.A.	271
9.	Karnataka % %	(KharifHyv.Ir.)								
		(KharifHyv. Ir. & UI.)								N.A.
		(Kharif Tra.Ir.)								
		(Kharif Tra.UI.)								
		Comb.	1160	100	12732	11440	90	4505	1.2	4965
		(Rabi Hyv.Ir.)								
		(Rabi Hyv.UI.)								N.A.
		(Rabi Tra.Ir.)								
		Comb.	93	100	3312	2319	70	4099	3.0	362
		(Sum.Hyv.)	12	100	310	249	80	4171	8.1	46
10.	Madhya Pradesh ***	Kharif	991	93	1928	1768	92	2308	1.7	2288
11.	Maharashtra *	Kharif	695	75	748	702	94	3116	1.4	1160
		Rabi	334	50	498	453	91	2709	1.8	457

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
12.	Odisha	(Aut.)	44	100	2668	2668	100	2512	2.0	112
		(Wint.)	0.4	100	35	35	100	1412	10.8	0.5
		Sum	2	100	246	246	100	2721	2.6	6
13.	Punjab	Kharif	114	97	360	360	100	3708	N.A.	423
14.	Rajasthan #	Kharif	856	100	12032	11520	96	2033	1.6	1740
15.	Tamil Nadu	Kharif	166	86	256	256	100	9219	1.6	1532
		Rabi	158	94	176	176	100	6692	2.6	1060
		Comb.	325	90	432	432	100	7986	1.4	2592
16.	Telangana	Kharif	463	67	1388	1384	100	3450	2.0	1598
		Rabi	167	90	1834	1834	100	6901	1.0	1154
17.	Uttar Pradesh	Kharif	664	98	28956	28834	100	2192	N.A.	1456
		Rabi	14	61	80	60	75	3002	N.A.	41
18.	West Bengal % %	Kharif	46	100	634	568	90	2692	2.0	125
T O T A L		Kharif	6681	86	82238	77045	94	2987	0.7	18325.4
		Rabi/Sum.	1464	74	8270	6545	79	4344	1.2	7535
		Comb.	8144	84	90508	83590	92	3231	0.6	25860
5. RAGI (MANDUA)										
1.	Andhra Pradesh	Kharif	27	93	200	200	100	1131	4.9	30
		Rabi	8	52	170	160	94	1775	3.29	14
2.	Bihar @	(Bha.)	4211	90	224	118	53	994	N.A.	4184
3.	Goa									
4.	Gujarat %	Kharif	12	96	237	236	100	896	N.A.	11
5.	Jharkhand	Kharif	19	N.A.	450	276	61	1162	N.A.	23
6.	Karnataka % %	(KharifHyv.Ir.)								
		(KharifHyv. Ir. & UI.)								
		(KharifTra.)								
		Comb.	724	100	7686	6896	90	2108	1.8	1451
		(Rabi Hyv.Ir.)								
		(Rabi Hyv.UI.)								
		Comb.	38	100	1432	794	55	1725	4.7	63
		(Sum. Hyv.Ir.)	5	100	300	266	89	1840	7.1	9

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				

1	2	3	4	5	6	7	8	9	10	
7.	Maharashtra *	Kharif	92	98	872	836	96	1004	2.1	94
8.	Odisha	(Aut.)	10	100	543	543	100	765	1.9	7.7
		(Wint.)	32	100	462	462	100	767	1.8	25
		Sum	0.1	100	40	40	100	686	8.8	0.1
9.	Tamil Nadu	Kharif	62	97	160	160	100	3425	2.7	214
		Rabi	24	95	200	200	100	4463	2.7	108
		Comb.	87	96	360	360	100	3715	2.0	321
10.	Telangana	Kharif	4	37	36	36	100	1147	14.1	1.0
11.	Uttarakhand	Kharif	103	100	1110	1096	99	1434	1.3	141
12.	Dadra & N. Haveli	Kharif	1	60	22	22	100	1879	54.0	2
TOTAL		Kharif	5298	92	12002	10881	91	1183	2.2	6183
		Rabi/Sum.	75	93	2142	1460	68	2613	2.2	193
		Comb.	5373	92	14144	12341	87	1203	2.1	6377

6. WHEAT

1.	Assam	Rabi	18	98	850	580	68	1386	1.4	25
2.	Bihar @	Rabi (Hyv.Ir.)	1571	100	31070	30402	98	3026	N.A.	4753
		Rabi (Hyv.UI.)	35	100	35	35	100	2455	N.A.	86
		Rabi (Lv.Ir.)	460	100	9605	9603	100	2574	N.A.	1183
		Rabi (Lv.UI.)	36	100	555	555	100	2303	N.A.	83
		Rabi Comb.	2101	100	41265	40595	98	2843	N.A.	5987
3.	Chhattisgarh	Rabi (Ir.)	82	76	666	476	71	1389	2.44	114
		Rabi (UI)	19	81	226	166	73	882	2.02	16
		Comb.	101	77	892	642	72	1294	2.1	130
4.	Gujarat %	Rabi (Ir.)	1007	99	40260	38672	96	3008	N.A.	3028
		Rabi(UI.)	52	99	718	415	58	764	N.A.	40
		Rabi Comb.	1059	99	40978	39087	95	2898	N.A.	3068
5.	Haryana ###	Rabi	2576	100	2200	2182	99	4407	0.7	11350
6.	Himachal Pradesh \$\$\$	Rabi	343	99	2666	2236	84	1940	1.2	598
7.	Jammu & Kashmir	(Plain)						N.A.		
		(Hills)						N.A.		
		Rabi Comb.	296	71	1956	1576	81	2154	4	64

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10
8.	Jharkhand	(Hyv.Ir.)							N.A.
		(Lv.Ir.)							N.A.
		(Lv.UI.)							N.A.
		Rabi Comb.	112	N.A.	17520	11902	68	2022	N.A.
9.	Karnataka % %	(Hyv.Ir.)							
		(Hyv.Ir & UI.)							N.A.
		(Tra.Ir.)							
		(Tra. Ir & UI.)							
		Rabi Comb.	190	60	3854	3172	82	1224	3.5
10.	Madhya Pradesh ***	(Hyv. Ir.)	4044	100	3150	2824	90	3096	0.7
		(Lv.Ir.)	917	98	1380	1126	82	2698	1.4
		Comb.	4961	100	4530	3950	87	3022	0.7
		(UI.)	447	93	1300	1196	92	1498	1.6
		Rabi Comb.	5408	99	5830	5146	88	2896	0.6
11.	Maharashtra *	(Ir.)							N.A.
		(UI.)							
		Rabi (Comb.)	1138	N.A.	7990	7762	97	1657	0.5
12.	Odisha	Sum	0.07	100	22	22	100	2163	14.0
13.	Punjab	Rabi	3512	100	2332	2330	100	5077	N.A.
14.	Rajasthan #	(Ir.)							N.A.
		(UI.)							N.A.
		(Comp.)							N.A.
		Rabi Comb.	3050	100	39636	37348	94	3698	0.2
15.	Uttarakhand	Rabi	333	100	2956	2940	99	2663	0.9
16.	Uttar Pradesh	Rabi	9753	100	226442	225838	100	3655	N.A.
17.	West Bengal % %	Rabi	322	100	2528	2285	90	2682	0.9
T O T A L			30312	95	399917	385643	96	3509	0.3
7. BARLEY									
1.	Bihar @	Rabi	10	89	300	180	60	1587	N.A.
3.	Haryana ###	Rabi	29	29	516	355	69	3414	1.6
2.	Chhattisgarh	Rabi	2	53	16	8	50	1017	0.5

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10
4.	Himachal Pradesh \$\$\$	Rabi	19	53	1160	750	65	1635	2.7
5.	Jharkhand	Rabi				N.A.			
6.	Madhya Pradesh ***	Rabi	72	89	536	500	93	1670	2.4
7.	Punjab	Rabi	8	99	240	240	100	3880	N.A.
8.	Rajasthan #	Rabi	274	97	5852	5748	98	3324	0.51
9.	Uttarakhand	Rabi	20	100	674	656	97	1400	1.6
10.	Uttar Pradesh	Rabi	144	89	706	606	86	2801	N.A.
T O T A L			579	89	10000	9043	90	2810	0.5
8. GRAM (BENGALGRAM)									
1.	Andhra Pradesh	Rabi	520	93	1328	1292	97	1132	1.4
2.	Bihar @	Rabi	58	97	800	714	89	1154	N.A.
3.	Chhattisgarh	Rabi	318	93	452	360	80	884	2.8
4.	Gujarat %	Rabi	293	92	3860	3674	95	1285	N.A.
5.	Haryana ###	Rabi	42	40	562	512	91	619	N.A.
6.	Jharkhand	Rabi	52	N.A.	7830	5094	65	1120	N.A.
7.	Karnataka % %	(Ir.)							
		(UI.)							
		Rabi Comb.	1262	100	9368	7778	83	784	1.6
8.	Madhya Pradesh ***	Rabi	2623	99	5330	4306	81	1115	0.8
9.	Maharashtra *	Rabi	2234	92	5526	5499	100	917	9.9
10.	Punjab	Rabi	2	92	100	100	100	1181	N.A.
11.	Rajasthan #	(Ir.)							
		(UI.)							
		(Comp.)							
		Rabi Comb.	1572	100	14684	12216	83	1074	0.8
12.	Telangana	Rabi	97	85	694	694	100	1516	1.27
13.	Uttar Pradesh	Rabi	501	96	13898	13171	95	1155	N.A.
14.	West Bengal % %	Rabi	28	100	725	630	87	1030	4.5
T O T A L			9603	96	65157	56040	86	1014	2.3
8537									

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
9. REDGRAM (TUR/ ARHAR)										
1.	Andhra Pradesh	Kharif	275	80	1148	1148	100	424	4.1	117
2.	Bihar @	Rabi	18	88	616	462	75	1548	N.A.	29
3.	Chhattisgarh	Kharif	58	58	494	310	63	601	2.4	35
4.	Gujarat %	Kharif	271	96	2935	2680	91	1273	2.6	377
5.	Haryana ###	Kharif	4	21	360	230	64	1068	N.A.	6
6.	Jharkhand	Rabi	1	N.A.	660	276	42	2076	N.A.	79
7.	Karnataka %%	Kharif	875	99	7280	6839	94	968	1.7	805
8.	Madhya Pradesh ***	Kharif	505	87	1650	1274	77	644	2.9	325
9.	Maharashtra *	Kharif	1375	95	5786	5734	99	912	0.7	444
10.	Tamil Nadu	Kharif	49	94	336	336	100	1273	3.6	58
11.	Telangana	Kharif	330	77	1296	1296	100	798	2.6	264
12.	Uttar Pradesh	Kharif	282	78	14208	11956	84	1175	N.A.	332
13.	West Bengal %%	Rabi	3	100	127	100	79	1249	3.4	4
T O T A L			4047	91	36896	32641	88	894	0.7	2874
10. GREENGRAM (MOONG)										
1.	Andhra Pradesh	Kharif	18	61	348	348	100	595	3.2	11
		Rabi	121	46	402	390	97	671	2.3	82
2.	Bihar @	(Bha.)	6	93	240	96	40	777	N.A.	5
		(Gar.)	170	91	504	406	81	707	N.A.	120
3.	Gujarat %		0	0	0	0	0	0	0	0
4.	Karnataka %%	Kharif	387	99	3850	3163	82	351	2.2	129
		Rabi	2	100	110	78	71	159	14.3	0.4
5.	Maharashtra *	Kharif	432	98	6210	6099	98	367	0.6	69.0
6.	Odisha	(Aut.)	26	100	527	527	100	319	2.6	8
		(Wint.)	82	100	1127	1127	100	310	2.8	26
		Sum	127	100	1776	1776	100	452	1.5	58
7.	Rajasthan #	Kharif	2250	100	14164	13293	94	432	1.0	971
8.	Tamil Nadu	Kharif	29	87	132	132	100	609	2.2	18
		Rabi	151	87	308	308	100	399	5.1	60

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
		1	2	3	4	5	6	7	8	
9.	Telangana	Kharif	92	74	652	652	100	638	2.2	58
		Rabi	7	38	156	156	100	832	3.65	6
10.	Uttar Pradesh	Kharif	45	81	2324	2306	99	394	N.A.	18
		(Zaid)	42	89	600	590	98	671	N.A.	28
11.	West Bengal %%	Sum	46	100	697	646	93	714	2.0	33
T O T A L		Kharif	3368	98	29574	27743	94	419	0.8	1312
		Rabi/ Sum.	667	84	4553	4350	96	580	1.4	387
		Comb.	4035	96	34127	32093	94	445	0.7	1699
11. BLACKGRAM (URD /MATHIKALAI)										
1.	Andhra Pradesh	Kharif	46	38	310	310	100	823	3.6	38
		Rabi	357	57	634	634	100	933	2.2	333
2.	Assam	Rabi	61	79	500	472	94	648	1.5	40
3.	Gujarat %	Kharif	0	0	0	0	0	0	0	0
4.	Jharkhand	Kharif	36	N.A.	510	396	78	977	N.A.	35
5.	Karnataka %%	Kharif	122	100	1150	1082	94	558	3.8	65
		Rabi	3	100	130	72	55	460	11.7	1
6.	Maharashtra *	Kharif	351	73	4852	4796	99	346	0.6	60.0
7.	Odisha	(Aut.)	20	100	662	662	100	314	2.4	6
		(Wint.)	43	100	1786	1786	100	358	1.9	15
		Sum	14	100	566	566	100	498	2.8	7
8.	Rajasthan #	Kharif	839	100	5256	5208	99	624	0.9	524
9.	Tamil Nadu	Kharif	58	69	112	112	100	911	1.8	53
		Rabi	368	69	312	308	99	675	3.6	248
10.	Telangana	Kharif	32	60	204	204	100	807	2.7	26
		Rabi	6	34	114	114	100	879	3.7	6
11.	Uttar Pradesh	Kharif	565	95	14956	14814	99	501	N.A.	283
		(Zaid)	49	79	700	648	93	632	N.A.	31
12.	West Bengal %%	Kharif	66	100	1209	1080	89	692	1.8	45
T O T A L		Kharif	2178	90	31007	30450	98	558	0.7	1151
		Rabi/ Sum.	858	36	2956	2814	95	450	3.2	667
		Comb.	3036	75	33963	33264	98	528	1.0	1817

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
		1	2	3	4	5	6	7	8	9
12. LAKH (KHEESARI)										
1.	Bihar @	Rabi	48	88	420	346	82	1057	N.A.	50
2.	Chhattisgarh	Rabi	223	96	440	322	73	601	4.5	129
3.	Madhya Pradesh ***	Rabi	50	68	220	204	93	738	1.2	37
4.	West Bengal	Sum	45	100	358	299	84	1173	8.7	55
T O T A L		366	92	1438	1171	81	750	3.2	271	
13. MASUR										
1.	Bihar @	Rabi	138	87	980	872	89	1068	N.A.	147
2.	Jharkhand	Rabi	9	N.A.	720	346	48	701	N.A.	6
3.	Rajasthan #	Rabi	31	98	1348	1302	97	1074	1.4	34
4.	Uttar Pradesh	Rabi	484	94	16152	15558	96	1029	N.A.	498
5.	West Bengal %%	Rabi	85	100	2537	2196	87	912	1.3	77
T O T A L		747	92	21737	20274	93	1021	0.9	762	
14. HORSEGRAM (KULTHI)										
1.	Andhra Pradesh	Kharif	17	37	120	120	100	420	7.5	7.1
		Rabi	22	46	270	270	100	691	4.1	15
2.	Karnataka %%	Kharif	46	96	2650	1799	68	718	3.1	31
		Rabi	123	100	4632	2961	64	635	2.2	74
3.	Odisha	(Wint.)	26	100	1921	1921	100	412	2.2	11
		Sum	0.37	100	23	23	100	381	6.4	0.14
4.	Tamil Nadu	Rabi	53	94	320	320	100	790	1.7	42
5.	Telangana	Kharif	0	0	0	0	0	0	0.0	0.00
		Rabi	0	0	0	0	0	0	0.0	0
T O T A L		288	90	9936	7414	75	648	1.2	181	
15. PEAS										
1	Jharkhand			N.A.						
2.	Uttar Pradesh	Rabi	294	82	8028	7761	97	1469	N.A.	433
3.	West Bengal %%	Rabi	14	100	314	261	83	1121	9.0	15
T O T A L		308	83	8342	8022	96	1453	6.9	448	
16. MOTH										
1.	Gujarat %		0	0	0	0	0	0	0	
2.	Rajasthan #	Kharif	1043	100	6812	5624	83	310	2.3	323
T O T A L		1043	100	6812	5624	83	310	2.3	323	

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
17. CHOWLA										
1.	Rajasthan #	Kharif	94	98	1748	1708	98	408	2.2	38
18. GUAR										
1.	Gujarat %	Kharif	200	80.0	186	160	86	665	N.A.	133.0
2.	Rajasthan #	Kharif	3432	100	21688	20844	96	363	1.1	1245
T O T A L		3632	99	21874	21004	96	380	1.0	1378	
19. SAWAN (JHANGORA)										
1	2	3	4	5	6	7	8	9	10	
1.	Uttarakhand	Kharif	50	100	620	590	95	1351	1.5	68
2.	Uttar Pradesh	Kharif	6	97	70	70	100	647	N.A.	4
		(Zaid)	42	98	20	10	50	881	N.A.	37.0
T O T A L		98	99	710	670	94	1106	1.8	109	
20. KORRA.										
1.	Andhra Pradesh	Kharif	11	65	204	204	100	1084	4.4	12
2.	Telangana	Kharif	0.3	23	10	10	100	1324	13.6	0.38
TOTAL		11	64	214	214	100	1090	4.3	12	
21. KODON - KUTKI (KODRA)										
1.	Chhattisgarh	Kharif	73	87	288	232	81	216	14.1	17
2.	Madhya Pradesh ***	Kharif	188	95	864	790	91	429	3.9	807
3.	Uttar Pradesh	Kharif	3	82	90	70	78	655	N.A.	2
T O T A L		264	93	1242	1092	88	373	4.0	826	
22. NAVANE										
1.	Karnataka %%	Kharif	18	100	730	561	77	547	5.3	10
23. SAVE										
1.	Karnataka %%	Kharif	13	100	330	227	69	947	17.3	11
24. SAMAI										
1.	Tamil Nadu	Kharif	16	94	100	100	100	1569	4.4	19
25. VARAGU										
1.	Tamil Nadu	Kharif	2	75	124	124	100	2060	4.4	4

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
		1	2	3	4	5	6	7	8

26. SUGARCANE

1.	Andhra Pradesh	(Plt.)	43	89	816	814	100	84000	0.6	3668
		(Rt.)	61	78	786	764	97	76000	0.8	4617
		(Comb.)	104	83	1602	1578	99	79335	0.5	8285
2.	Assam	Kharif	31	91	700	530	76	37902	0.2	1143
3.	Bihar @	(Ir.)	208	N.A.	380	277	73	59091	N.A.	12303
		(UL.)	26	N.A.	420	313	75	59525	N.A.	1521
		(Comb.)	234	N.A.	800	590	74	59138	N.A.	13825
4.	Goa	Kharif	1	100	130	74	57	51824	N.A.	47
5.	Haryana ###	Kharif	93	66	1070	850	79	75183	N.A.	6992
6.	Jharkhand	Kharif	1	N.A.	240	170	71	46416	N.A.	37
7.	Karnataka %%	Kharif	226	100	750	727	97	96000	6.0	2047
8.	Kerala	Kharif	1	0.04	42	42	100	10987	N.A.	12
9.	Maharashtra *	Kharif	902	93	7666	7118	93	97300	0.4	85679
10.	Odisha	Kharif	4	100	129	129	100	64704	5.7	240
11.	Punjab	Kharif	96	97	694	682	98	83580	N.A.	8024
12.	Rajasthan #	Kharif	5	98	450	410	91	70364	2.7	382
13.	Tamil Nadu	Kharif	172	98	468	468	100	103000	1.5	17154
14.	Telangana	(Plt.)	23	41	104	104	100	85000	2.0	2
		(Rt.)	13	47	104	104	100	78000	1.8	1
		(Comb.)	36	43	208	208	100	82472	1.4	3
15.	Uttar Pradesh	Kharif	2234	98	9612	9311	97	79245	N.A.	177056
16.	West Bengal %%	Rabi	21	100	439	383	87	75815	8.2	1550
T O T A L			4161	90	25000	23270	93	84288	1.1	322476

27. COCOA

1.	Kerala	Kharif	15	1	793	793	100	1001	N.A.	15
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28. CHILLIES

1.	Andhra Pradesh	Kharif	102	60	400	336	84	5064	2.1	516
		Rabi	17	45	402	374	93	4689	3.23	82
2.	Bihar @	Rabi	2	83	340	218	64	1910	N.A.	3
3.	Chhattisgarh	Rabi	4	3	26	4	15	353	N.A.	2

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)		
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d						
1	2	3	4	5	6	7	8	9	10		
4.	Karnataka % %	Kharif	54	100	770	621	81	2063	8.6	106	
		Rabi	0	0	0	0	0	0	0.0	0	
		Sum	0	0	0	0	0	0	0.0	0	
5.	Madhya Pradesh ***	Rabi	75	44	80	48	60	533	29.6	40	
6.	Telangana	Kharif	63	63	458	458	100	4420	2.5	279	
		Rabi	11	82	198	198	100	5803	1.6	62	
T O T A L			328	63	2674	2257	84	3341	1.9	1089	
29. CUMIN											
1.	Gujarat %	Rabi	375	99	8550	7658	90	375	N.A.	297	
2.	Rajasthan #	Rabi	581	100	4888	4144	85	521	1.7	303	
T O T A L			956	99	13438	11802	88	464	1.9	600	
30. FENNEL											
1.	Gujarat %	Rabi	37	85	350	350	100	37	N.A.	62	
31. ARECANUT											
1.	Kerala	Kharif	95	4	1620	1620	100	1147	2.1	109	
2.	Maharashtra *							521	1.7	303	
T O T A L			95	4	1620	1620	100	1147	2.1	109	
32. PEPPER											
1.	Kerala	Kharif	85	3	1614	1614	100	446	3.3	38	
33. SAFFRON											
1.	Jammu & Kashmir	Kharif	4	N.A.	114	84	74	1	N.A.	0.002	
34. TURMERIC											
1	Karnataka % %	Kharif	19	N.A.	390	378	97	31097	7	552	
2.	Kerala	Kharif	3	0.1	1553	1553	100	3177	N.A.	9	
T O T A L			22	N.A.	1943	1931	99	1336	N.A.	561	
35. GINGER											
1.	Kerala	Kharif	4	0.2	1442	1442	100	4343	N.A.	19	
2.	Meghalaya	Kharif	10	99	630	622	99	7781	0.01	66	
T O T A L			14	68	2072	2064	100	6706	0.01	85	
36. GARLIC											
1.	Gujarat %	Rabi	0	0	0	0	0	0	0	0	

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Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
37. CORIANDER										
1.	Rajasthan #	Rabi	98	97.2	3176	2571	81	1331	N.A.	130
38. LICHI										
1.	Bihar @	Rabi	9	86	300	244	81	6513	N.A.	57
39. BANANA										
1.	Bihar @	Rabi	11	96	500	264	53	16238	N.A.	171
2.	Gujarat %		0	0.0	0	0.0	0	0	0.0	0
3.	Kerala	Kharif	62	2	2394	2394	100	8111	1.9	566
4.	Madhya Pradesh ***	Rabi	N.A.	N.A.	138	80	58	N.A.	N.A.	N.A.
T O T A L		73	16	3032	2738	90	9291	1.7	737	
40. MANGO										
1.	Bihar @	Rabi	57	94	600	388	65	31092	N.A.	1764
2.	Kerala	Kharif	78	3	1620	1620	100	6238	N.A.	490
T O T A L		135	41	2220	2008	90	16664	N.A.	2254	
41. GUAVA										
1.	Bihar @	Rabi	1	86	280	156	56	10697	N.A.	10
42. JACKFRUIT										
1.	Bihar @	Rabi	4	88	420	232	55	22895	1.9	102
2.	Kerala	Kharif	92	4	1618	1618	100	3376	N.A.	309
T O T A L		96	7	2038	1850	91	4284	1.9	411	
43. CASHEWNUT										
1.	Kerala	Kharif	40	2	1518	1518	100	645	N.A.	26
2.	Maharashtra *						645	N.A.		
T O T A L		40	100	1518	1518	100	793	-	26	
44. TAPIOCA										
1.	Kerala	Kharif	70	3	1593	1593	100	38427	1.1	2697
45. PINE APPLE										
1.	Kerala	Kharif	9	0.3	1552	1552	100	9399	N.A.	83

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10

46. POTATO

1.	Assam	Rabi	103	95	850	782	92	7009	1.4	721
2.	Bihar @	(Agh.)	68	66	340	178	52	13430	N.A.	1257
		Rabi	88	72	424	398	94	14297	N.A.	1257
3.	Chhattisgarh	Rabi	11	16	150	30	20	4477	7.6	56
4.	Gujarat %	Rabi	130	98	1400	1233	88	28780	N.A.	3753
5.	Jharkhand	(Agh.)	21	N.A.	570	412	72	7940	N.A.	166
		Rabi	25	N.A.	7830	4938	63	9159	N.A.	227
6.	Jammu & Kashmir	Kharif	2	N.A.	324	90	28	10811	N.A.	20
		Rabi	1	N.A.	184	74	40	12679	N.A.	13
7.	Karnataka %%	Kharif	22	97	590	485	82	10169	6.1	216
		Rabi	3	100	250	240	96	19186	7.7	61
8.	Madhya Pradesh ***	Rabi	82	70	432	346	80	18458	1.1	1118
9.	Meghalaya	Sum	11	100	312	288	92	15708	0.03	122
10.	Odisha	(Wint.)	4	100	1452	1452	100	10543	2.9	42
11.	Uttar Pradesh	Rabi	573	93	21512	21442	100	26201	N.A.	15009
T O T A L			1144	85	36620	32388	88	21098	0.5	24039

47. ONION

1.	Bihar @	Rabi	13	73	424	290	68	14146	N.A.	186
2.	Chhattisgarh	Rabi	5	6	50	12	24	6899	2.8	35
3.	Gujarat %	Rabi	0	0	0	0	0	0	0	0
4.	Jharkhand	Rabi	4	N.A.	630	364	58	8010	N.A.	29
5.	Karnataka %%	Kharif	112	100	2290	1882	82	11784	4.9	1258
		Rabi	12.6	100	390	383	98	12999	8.4	155
		Sum	1	100	170	141	83	13049	8.5	18
6.	Madhya Pradesh ***	Rabi	73	92	642	458	71	18760	2.4	1377
7.	Uttar Pradesh	Rabi	13	38	70	60	86	14607	N.A.	190
		(Zaid)	13	44	620	512	83	14385	N.A.	181
T O T A L			248	86	5286	4102	78	14161	2.5	3429

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)		
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d						
1	2	3	4	5	6	7	8	9	10		
48. BRINJAL											
1.	Bihar @	(Agh.)	19	69	340	218	64	11291	0.36	209	
		Rabi	8	69	340	258	76	9057	7.82	72	
2.	Jharkhand	(Agh.)	5	N.A.	390	304	78	5933	N.A.	32	
		Rabi	4	N.A.	480	308	64	5352	N.A.	24	
3.	Karnataka %%	Kharif	2	N.A.	280	211	75	8456	9.21	14	
T O T A L			37	49	1830	1299	71	8939	2.3	351	
49. TOMATO											
1.	Bihar @	(Agh.)	8	45	140	136	97	13470	0.52	110	
		Rabi	6	61	280	200	71	11940	4.39	73	
2.	Jharkhand	(Agh.)	8	N.A.	660	476	72	5590	N.A.	47	
		Rabi	5	N.A.	540	384	71	5712	N.A.	37	
3.	Karnataka %%	Kharif	21	N.A.	1590	1467	92	17264	3.54	344	
		Rabi	5	N.A.	280	263	94	13366	8.25	59	
		Sum	1	N.A.	60	59	98	14566	15.07	13	
T O T A L			54	14	3550	2985	84	12892	0.6	683	
50. CAULIFLOWER											
1.	Bihar @	Rabi	30	86	340	266	78	13455	N.A.	408	
51. PAPAYA (PAPITA)											
1.	Madhya Pradesh ***	Rabi	N.A.	N.A.	32	30	94	N.A.	N.A.	N.A.	
52. PLANTAIN											
1.	Kerala	Kharif	54	2	1622	1622	100	6972	N.A.	380	
53. METHI											
1.	Rajasthan #	Rabi	68	96	1768	1632	92	1199	N.A.	81	
54. GROUNDNUT											
1.	Andhra Pradesh	Kharif	648	99	2608	2590	99	1291	1.25	837	
		Rabi	87	55	842	800	95	2435	2.1	211	
2.	Chhattisgarh	Kharif	20	65	246	152	62	1264	1.64	33	
3.	Goa	Kharif	0.3	100	80	20	25	2325	N.A.	1	
		Rabi	1	100	80	42	53	2243	N.A.	3	
4.	Gujarat %	Kharif	1627	99	15505	13748	89	2440	3	3971	
		Sum	51	74	4170	2743	66	1842	N.A.	95	

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10
5.	Karnataka % %	(KharifIrr.)							
		(KharifUI.)							
		(Comb.)	387	100	8226	6742	82	1079	2.3
		(Rab.UI.)	3	N.A.	130	130	100	2376	10.9
		(Sum. Ir.)							
		(Sum. UI.)							
		Sum (Comb.)	96	N.A.	4840	3151	65	1153	3
6.	Madhya Pradesh ***	Kharif	201	86	954	792	83	1141	3.2
7.	Maharashtra *	Kharif	240	91	2904	2730	94	1148	1.0
		Sum	51	98	1486	1396	94	1225	2.5
8.	Odisha	(Aut.)	14	100	1108	1108	100	899	1.9
		(Wint.)	2	100	104	104	100	1357	5.7
		Sum	17	100	1367	1367	100	1308	3.6
9.	Rajasthan #	Kharif	641	99	6444	4961	77	1966	1.0
10.	Tamil Nadu	Kharif	189	100	700	700	100	2169	1.5
		Rabi	139	100	460	460	100	3491	3.1
		Comb.	327	100	1160	1160	100	2730	1.8
11.	Telangana	Kharif	21	72	188	188	100	2188	3.2
		Rabi	146	89	1154	1154	100	2236	1.98
12.	Uttar Pradesh	Kharif	88	85	7706	7428	96	1013	N.A.
13.	West Bengal % %	Rabi	55	100	611	524	87	2536	3.7
	T O T A L	Kharif	4078	97	46773	41263	88	1857	1.4
		Rabi/Sum.	647	74	15140	11767	78	2089	1.4
		Comb.	4725	94	61913	53030	86	1889	1.2
	55. SESAMUM (GINGELLY)								
1.	Andhra Pradesh	Kharif	13	71	270	270	100	220	5.1
		Rabi	26	53	310	310	100	302	3.1
2.	Chhattisgarh	Kharif	25	57	220	154	70	301	2.8
3.	Gujarat %	Kharif	108	95	1138	979	86	605	N.A.
4.	Karnataka % %	Kharif	34	100	1880	1370	73	940	5.9
5.	Kerala	Kharif	2.39	0.01	94	94	100	375	N.A.
6.	Madhya Pradesh ***	Kharif	370	92	1476	1324	90	411	1.9

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10
7.	Maharashtra *	Kharif	27	77	872	726	83	189	1.3
		Rabi	0	0	0	0	0	0	0
8.	Odisha	(Aut.)	2	100	192	192	100	245	5.6
		(Wint.)	11	100	537	537	100	288	3.4
		Sum	2	100	144	144	100	275	6.1
9.	Rajasthan #	Kharif	252	97	6444	5892	91	269	1.8
10.	Tamil Nadu	Kharif	13	100	224	162	72	475	6.3
		Rabi	28	100	256	252	98	567	5.3
		(Comb.)	42	100	480	414	86	538	4.2
11.	Telangana	Kharif	1	42	56	56	100	234	16.7
		Rabi	15	73	180	180	100	569	2.8
12.	Uttar Pradesh	Kharif	278	94	13476	13176	98	295	N.A.
13.	West Bengal %%	Sum	233	100	3183	2737	86	924	1.2
	T O T A L	Kharif	1137	93	26879	24932	93	374	1.3
		Rabi/Sum.	304	95	4073	3623	89	816	1.1
		(Comb.)	1441	93	30952	28555	92	468	0.9
	56. CASTOR								
1.	Andhra Pradesh	Kharif	31	71	232	232	100	651	4.1
2.	Gujarat %	Kharif	585	96	4789	4613	96	2541	N.A.
3.	Karnataka %%	Kharif	5	100	700	431	62	667	5.1
4.	Telangana	Kharif	28	59	150	150	100	937	6.5
	T O T A L		649	93	5871	5426	92	2367	1.3
	57. RAPE & MUSTARD								
1.	Assam	Rabi	290	100	1250	1088	87	639	0.8
2.	Bihar @	Rabi	79	80	1064	1018	96	1245	N.A.
3.	Chhattisgarh	Rabi	44	49	416	260	63	438	4.4
4.	Gujarat %	Rabi	221	95	3535	3489	99	1808	1
5.	Haryana ###	Rabi	482	64	1040	990	95	1434	0.5
6.	Jammu & Kashmir	Rabi	47	N.A.	244	180	74	792	N.A.
7.	Jharkhand	Rabi	64	N.A.	7830	4860	62	935	N.A.
8.	Madhya Pradesh ***	Rabi	600	92	1116	996	89	1178	2.0
9.	Odisha	(Wint.)	9	100	1694	1694	100	326	2.9
10.	Punjab	Rabi	31	95	566	566	100	1498	N.A.

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				
1	2	3	4	5	6	7	8	9	10
11.	Rajasthan #	(Ir.)				N.A.			
		(UI.)				N.A.			
		(Comp.)				N.A.			
		Rabi Comb.	2183	100	30268	27467	91	1614	0.3
12.	Uttar Pradesh	Rabi	679	96	28076	27593	98	1392	N.A.
13.	West Bengal %%	Rabi	459	100	5030	4397	87	1077	0.9
	T O T A L		5188	93	82129	74598	91	1390	0.3
	58. LINSEED (ALSI)								
1.	Chhattisgarh	Rabi	26	62	276	174	63	262	5.6
2.	Jammu & Kashmir	Rabi	0.1	N.A.	16	12	75	504	N.A.
3.	Karnataka %%	Rabi	1	100	260	87	33	346	10.1
4.	Madhya Pradesh ***	Rabi	94	92	920	802	87	553	4.4
5.	Maharashtra *	Rabi	11	92	172	147	85	293	N.A.
6.	Uttar Pradesh	Rabi	26	90	130	108	83	602	N.A.
7.	West Bengal %%	Rabi	7	100	163	131	80	370	27.7
	T O T A L		165	87	1937	1461	75	489	3.9
	59. SAFFLOWER								
1.	Karnataka %%	Rabi	32	100	1770	1163	66	940	3.4
2.	Maharashtra *	Rabi	39	89	1430	757	53	548	1.5
	T O T A L		71	94	3200	1920	60	724	2.1
	60. SUNFLOWER								
1.	Andhra Pradesh	Kharif	3	69	196	172	88	758	5.5
		Rabi	6	45	368	210	57	1544	3.9
2.	Haryana ###	Rabi	8	N.A.	230	66	29	1644	N.A.
3.	Karnataka %%	(KharifIrr.)							
		(KharifUI.)							
		Comb.	110	100	4650	2577	55	952	3.4
		(Rabi Ir.)							
		(Rabi UI.)							
		Comb.	57	N.A.	4238	998	24	483	14.5
		(Sum. Ir.)	3	100	1240	237	19	1265	12.2
4.	Maharashtra *	Kharif	17	99	338	258	76	491	1.9
		Rabi	24	81	184	121	66	508	2.4
		Sum	0.4	86	54	40	74	1212	3.0
									5.0

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d				

1	2	3	4	5	6	7	8	9	10	
5.	Tamil Nadu	Kharif	1	100	96	4	4	1734	21.1	
		Rabi	6	100	204	192	94	577	8.2	
6.	Uttar Pradesh	(Zaid)	2	44	170	30	18	1442	N.A.	
7.	Telangana	Kharif	0	0	0	0	0	0	0	
		Rabi	3	73	134	116	87	2135	5.7	
T O T A L		Kharif	130	99	5280	3011	57	892	3.0	
		Rabi/Sum.	111	32	6822	2010	29	725	5.6	
		Comb.	240	68	12102	5021	41	816	2.9	
61. SOYABEAN										

1.	Andhra Pradesh	Kharif	0.4	98	78	28	36	1888	5	1
2.	Chhattisgarh	Kharif	96	94	156	142	91	331	15.2	46
3.	Karnataka % %	Kharif	274	100	1964	1754	89	1608	2.7	418
4.	Madhya Pradesh ***	Kharif	6014	95	2774	2450	88	457	3.9	2748
5.	Maharashtra * *	Kharif	3694	92	5258	5141	98	1030	0.6	1802.0
6.	Rajasthan #	Kharif	886	100	8008	7488	94	1207	0.7	1070
7.	Telangana	Kharif	152	75	602	602	100	1624	1.8	247
8.	Uttar Pradesh	Kharif	14	94	864	856	99	777	N.A.	11
T O T A L			11130	94	19704	18461	94	750	1.3	6343

62. TARA MEERA										
1.	Rajasthan #	Rabi	27	68	1400	573	41	628	N.A.	17
63. COCONUT ##										
1.	Kerala	Kharif	760	29	2430	2430	100	6859	0.8	5230
2.	Maharashtra * *									N.A.
T O T A L			760	30	2430	2430	100	6859	0.8	5230

64. NIGER										
1.	Maharashtra * *	Kharif	14	68	346	308	89	158	2.4	4.0
65. COTTON \$ (Lint)										
1.	Andhra Pradesh	Kharif	644	63	952	942	99	684	3.4	1067
2.	Gujarat %	Kharif (Ir.)	1847	98	21958	21155	96	1847	1	3989
		Kharif (UI.)	780	99	7370	5922	80	1008	2	787
		Kharif Comb.	2627	98	29328	27077	92	1598	0.9	4776

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
3.	Haryana ###	Kharif	615	45	940	908	97	275	N.A.	995
4.	Karnataka %%	(Ir.)								
		(UI.)								
		Kharif Comb.	510	N.A.	3520	3017	86	603	2.8	172
		Rabi	21	N.A.	130	123	95	126	8.7	1
5.	Madhya Pradesh ***	Kharif	557	98	962	819	85	1227	2.1	4017
6.	Maharashtra *	(Ir.)								
		(UI.)								
		(Comp.)								
		Kharif Comb.	4351	N.A.	8510	8350	98	238	0.4	7467.0
7.	Punjab	Kharif	291	100	680	680	100	750	N.A.	1283
8.	Rajasthan #	Khaif	584	99	6672	6008	90	1652	0.8	5679
9.	Tamil Nadu	Kharif	138	100	564	564	100	368	1.5	338
		Rabi	43	100	256	256	100	441	3.9	101
		Comb.	182	100	820	820	100	385	1.5	439
10.	Telangana	Kharif	1897	61	1372	1372	100	1467	1.2	2782
11.	Uttar Pradesh	Kharif	4	87	80	66	83	370	N.A.	2
	T O T A L	Kharif	12218	50	53580	49803	93	894	0.5	28577
		Rabi	64	67	386	379	98	338	3.6	103
		Comb.	12282	50	53966	50182	93	891	1	28680
	66. JUTE. @@									
1.	Assam	Kharif	70	95	600	517	86	2165	1.6	841
2.	Bihar @	Kharif	83	96	200	92	46	2392	N.A.	200
3.	Meghalaya	Kharif	7	95	52	52	100	1007	0.05	68
4.	Odisha	Kharif	1	100	40	40	100	2492	10.5	2
5.	West Bengal %%	Kharif	522	100	2910	2573	88	2720	0.5	8188
	T O T A L		683	99	3802	3274	86	2605	0.5	9299

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
		1	2	3	4	5	6	7	8	9
67. MESTA. @@										
1.	Andhra Pradesh	Kharif	5	91	200	200	100	1686	0.8	8
2.	Bihar @	Kharif	21	96	200	72	36	1568	N.A.	32
3.	West Bengal %%	Kharif	14	100	222	201	91	2040	3.2	162
T O T A L		39	97	622	473	76	1750	2.8	202	
68. TOBACCO										
1.	Andhra Pradesh	(N)	22	50	296	292	99	2935	1.7	64
		(V)	61	79	386	352	91	1890	1.6	116
		Rabi (Comb.)	83	71	682	644	94	2163	1.2	180
2.	Gujarat %	Rabi	53	99	226	226	100	1856	3	99
3.	Karnataka %%	Rabi	92	100	260	225	87	1052	2.8	92
4.	Maharashtra *	Rabi	0.6	100	16	16	100	1245	6.6	64
5.	Telangana	(N)	0.4	48	10	10	100	4504	1.7	2
		(V)	3	49	26	26	100	2855	10.8	9
		Rabi (Comb.)	4	49	36	36	100	3029	8.9	11
6.	Uttar Pradesh	Rabi	22	54	100	60	60	4653	N.A.	103
		(Zaid)	1	22	20	10	50	2853	N.A.	3.0
		Comb.	23	53	120	70	58	4575	-	106
T O T A L		256	85	1340	1217	91	1926	1.1	553	
69. ISABGOL										
1.	Gujarat %	Rabi	25	94	168	164	98	736	N.A.	18
2.	Rajasthan #	Rabi	417	99	4292	3659	85	543	N.A.	226
T O T A L		442	99	4460	3823	86	554	N.A.	244	
70. AVARE (SEM)										
1.	Karnataka %%	Kharif	47	98	1090	985	90	1108	5.6	49
		Rabi	2	N.A.	10	10	100	831	34.4	2
71. COWPEA (LOBIA)										
1.	Karnataka %%	Kharif	71	99	950	742	78	258	4.5	17
		Summer	1	N.A.	70	48	69	310	16.5	0.3
2.	Goa	Kharif	0.2	100	190	35	18	959	NA	0.2
		Rabi	5	100	190	148	78	867	NA	5
3.	Tamil Nadu	Kharif	47	99	112	96	86	789	3.3	34
		Rabi	14	99	112	92	82	851	7.1	9
Total		139	100	1624	1161	71	166	7.7	66	
72. TAMARIND										
1.	KERALA	Kharif	11	0.4	1592	1592	100	3438	N.A.	36

ANNEX-V :ESTIMATES OF YIELD RATES AND PRODUCTION UNDER CES DURING 2017-18

Sl. No.	S T A T E	Area under Crop		No. of Experiments		Resp- onse % age	Estimat- ed yield rate (Kg/ha.)	Standar- d Error % age	Total Product- ion (000 tonnes)	
		Total (000) (ha.)	Cover age % age	Planned	Analyse- d					
1	2	3	4	5	6	7	8	9	10	
73. NUTMEG										
1.	KERALA	Kharif	23	1	1382	1382	100	647	N.A.	15
74. BETEL LEAVES										
1.	KERALA	Rabi	0.3	0.01	705	705	100	36053	N.A.	10
75. CABBAGE										
1.	KARNATAKA	Kharif	1.6	N.A.	100	81	81	36615	16.2	54
76. BEANS										
1.	KARNATAKA	Kharif	1.4	N.A.	180	168	93	11098	8.2	15

Note :-

1. : All primary data have been supplied by concerned SASA.
2. # : Standard Error % repeated for Rabi & Summer Season Crops from the year 2016-17.
3. ** : Estimated average yield is in number of Jackfruits/hec. and production in million numbers for Kerala State.
4. ## : Estimated average yield is in number of coconuts/hec. and production in million nuts.
5. \$: Production of cotton in `000' bales of 170 Kgs. each.
6. * : Coverage % & Sampling Error repeated for the crops of Rice Kh, Ragi, Redgram, Greengram, Blackgram, Groundnut (Kh & Rabi), Sesamum (Kh & Rabi), Linseed, Safflower, Sunflower (Kh, Rabi & Sum), Soyabean, Niger & Tobacco and Area, Coverage, Yield, Sampling Error, & Production repeated for crops Rice Sum., Jowar (Kharif & Rabi), Bajra Kharif, Wheat, Gram Kharif, Sugarcane and Cotton from the year 2011-12.
7. @@ : Production of Jute and Mesta in `000' bales of 180 Kgs. each.
8. %% : Coverage % age repeated from the year 2015-16 .
9. \$\$: Data repeated from the year 2011-12 Linseed, Potato, R&M and Saffron.
10. @ : coverage percentage repeated from the year 2013-14 .
11. : N.A. = Not Available
12. \$\$\$: Coverage Percentage repeated from the year 2014-15.
13. *** : Figure repeated from the year 2013-14 in respect for crops Banana, Onion and Papaya and all other crop 2015-16 for Madhya Pradesh.
14. % : Coverage % age and Standard Error % repeated from the year 2016-17 .
15. ### : Data repeated from the year 2015-16.

ANNEX - VI : COMPARISION OF SURVEY ESTIMATES AND OFFICIAL ESTIMATES IN RESPECT OF THOSE CROPS WHERE DIFFERENCE IN AREA, PRODUCTION OR YIELD IS MORE THAN FIVE PERCENT DURING 2017-18

Sl. No.	S T A T E	SURVEY ESTIMATES			OFFICIAL ESTIMATES			
		Area in 000'ha.	Production in "000" tonnes	Yield in Kg./ha.	Area in '000'ha.	Production in "000" tonnes	Yield in Kg./ha.	
1	2	3	4	5	6	7	8	
1. RICE								
1	Andhra Pradesh	Kharif	1477	7232	5019	1477	4941	3346
		Rabi	741	5279	7122	679	3225	4749
2	Bihar	Kharif	3239	11924	3681	3239	7949	2459
		Rabi	68	216	3179	68	144	2119
3	Gujarat	Kharif	803	2624	3269	803	1750	2179
		Rabi	53	210	4879	53	141	2664
4	Haryana		1206	3941	3268	1422	4523	3181
5	Himachal Pradesh		72	141	2193	72	115	1603
6	Jammu & Kashmir		273	100	3375	274	513	1876
7	Jharkhand	(Bha.)	1342	4163	2108	1735	4078	2350
8	Karnataka	Kharif	734	3204	4594	737	2233	3030
		Rabi	241	1134	4951	256	784	3063
9	Kerala	Rabi	50	153	3089	44	135	3048
10	Madhya Pradesh	Kharif	1935	2120	1127	2023	4095	2024
12	Meghalaya		95	237	1734	97	241	2474
13	Punjab		3065	13382	4366	3065	13382	4866
14	Rajasthan		191	676	3548	191	451	2365
15	Tamil Nadu		1829	6638	3630	1671	5923	1856
16	Telangana	Kharif Ir.	1026	2899	2826	1047	2946	2814
17	Uttarakhand		239	606	2261	239	605	2531
18	Uttar Pradesh		5898	15442	2618	5788	13197	2280
19	West Bengal	(Aut.)	4211	11639	2764	3858	10691	2771
		Summer	1185	863	3379	1258	4277	3400
20	Dadra & Nagar Haveli		13	25	1890	14	31	2200
21	Daman & Diu		1.8	3	1833	1.8	2	1222
22	Puducherry	Kharif	4	13	3265	13	27	2064
		Rabi	12	35	2982	4	16	3611
2. JOWAR								
1	Chhattisgarh		4	5	1339	4	5	1483
2	Karnataka	Kharif	92	145	1662	92	160	1742
		Rabi	993	1075	1140	996	980	984
3	Madhya Pradesh		190	283	1491	270	570	2112
4	Maharashtra	Rabi	2899	1842	636	1666	1060	636
3. BAJRA								
1	Andhra Pradesh		43	83	1912	48	93	1927
2	Gujarat	Kharif	153	252	1682	397	965	2430
3	Haryana		370	652	1762	450	721	1602
4	Karnataka		226	347	1620	231	287	1241
5	Madhya Pradesh		233	366	1575	310	755	2435
6	Tamil Nadu		46	108	2356	63	144	2277
7	Telangana		1	1	1057	9	10	1057
8	Daman & Diu		0.4	0.6	1333	0.4	0.5	1333
4. MAIZE								
1	Haryana		6	18	3000	6	19	3167
2	Himachal Pradesh		281	751	2971	281	711	2532
3	Jammu & Kashmir		303	55	1943	303	546	1805
4	Jharkhand	(Bha.)	124	271	1792	285	576	2025
5	Karnataka	Kharif	1160	4965	4505	1183	3394	2869
		Rabi	105	409	4107	124	460	3710
6	Madhya Pradesh		991	2288	2308	1317	3404	2585
7	Maharashtra	Rabi	334	905	2709	369	886	2400
8	Tamil Nadu	(Ir.)	166	1532	9219	166	1532	9219
9	Telangana	Rabi	167	1154	6901	167	958	5738

Sl. No.	S T A T E	SURVEY ESTIMATES			OFFICIAL ESTIMATES		
		Area in 000'ha.	Production in "000" tonnes	Yield in Kg./ha.	Area in `000'ha.	Production in "000" tonnes	Yield in Kg./ha.
1	2	3	4	5	6	7	8
5. RAGI (MANDUA)							
1	Andhra Pradesh	Kharif	27	30	1131	35	45
2	Jharkhand		19	23	1162	19	18
3	Karnataka	Kharif	724	1451	2108	778	1286
4	Tamil Nadu	Kharif	62	214	3425	87	321
5	Telangana		4	1.0	1147	1	1.1
6	Dadra & N. Haveli		1	2	1879	1	2
6. WHEAT							
1	Jammu & Kashmir		296	64	2154	299	487
2	Jharkhand		112	227	2022	221	469
3	Odisha	Summer	0.07	0.2	2163	0.07	0.2
4	Rajasthan		3050	11280	3698	2810	9369
5	Uttar Pradesh		9753	35646	3655	9753	31879
7. BARLEY							
1	Haryana		29	99	3414	20	69
2	Himachal Pradesh		19	28	1635	19	34
3	Madhya Pradesh		72	158	1670	130	298
8. GRAM (BENGALGRAM)							
1	Haryana		42	26	619	32	36
2	Jharkhand		52	79	1120	233	286
3	Karnataka		1262	939	784	1265	783
4	Madhya Pradesh		2623	2924	1115	3590	4595
5	Maharashtra		2234	2049	917	2000	1834
9. REDGRAM (TUR/ARHAR)							
1	Haryana		4	6	1068	4	5
2	Jharkhand	Rabi	1	79	2076	194	222
3	Karnataka		875	805	968	885	762
4	Madhya Pradesh		505	325	644	647	839
5	Maharashtra		1375	1254	912	1241	1128
6	Tamil Nadu	Kharif	46	54	1093	49	54
10. GREENGRAM (MOONG)							
1	Bihar	(Bha.)	6	5	777	7	6
2	Karnataka	Rabi	2	0.4	159	5	1
3	Odisha	(Aut.)	26	8	319	109	34
4	Rajasthan		2250	971	432	1719	742
11. BLACKGRAM (URD /MATHIKALAI)							
1	Jharkhand		36	35	977	147	129
2	Karnataka	Kharif	122	65	558	132	67
		Rabi	3	1	460	4	2
3	Telangana	Rabi	32	26	807	32	5
12. LAKH (Khesari)							
1	West Bengal	Summer	45	55	1173	55	69
13. MASUR							
1	Jharkhand		9	6	701	69	63
2	West Bengal		85	77	912	158	155
14. HORSEGRAM (KULTHI)							
1	Andhra Pradesh	Kharif	17	7.1	420	1	0.2
		Rabi	22	15	691	11	6
2	Karnataka	Kharif	46	31	718	36	11
		Rabi	123	74	635	88	5
3	Tamil Nadu	Rabi	53	42	790	4	1
15. PEAS							
1	Uttar Pradesh		294	433	1469	384	418
2	West Bengal		14	15	1121	18	15
16. MOTH							
1.	Gujarat		19	9	476	32	15

Sl. No.	S T A T E	SURVEY ESTIMATES			OFFICIAL ESTIMATES			
		Area in 000'ha.	Production in "000" tonnes	Yield in Kg./ha.	Area in `000'ha.	Production in "000" tonnes	Yield in Kg./ha.	
1	2	3	4	5	6	7	8	
17. CHOWLA								
1.	Rajasthan		94	38	408	98	68	412
18. SUGARCANE								
1	Andhra Pradesh		104	8285	79355	99	7790	78683
2	Haryana		93	6992	75183	114	9633	84499
3	Jharkhand		1	37	46416	8	575	70000
4	Karnataka		226	2047	96000	370	31135	84081
5	Maharashtra		902	87810	97300	902	82984	92000
6	Rajasthan		5	382	70364	5	382	70364
7	Telangana	(Plt.)	23	2	85000	35	2604	74413
19. GROUNDNUT								
1	Karnataka	Kharif	387	397	1079	390	346	886
		Rabi	96	106	1153	174	207	1190
2	Tamil Nadu	Kharif	189	464	2169	17	464	2460
3	West Bengal	Rabi	55	139	2536	146	163	960
20. SESAMUM (GINGELLY)								
1	Andhra Pradesh		13	3	220	40	11	274
2	Gujarat		108	65	605	123	73	591
3	Karnataka		34	30	940	36	24	660
4	Kerala		2.39	0.09	375	0.24	0.08	334.00
5	Madhya Pradesh		370	152	411	424	187	441
6	Odisha	Kharif	13	4	280	15	4	279
7	Tamil Nadu	Kharif	13	6	475	42	23	555
8	Telangana		1	0.3	234	16	8.8	547.0
21. CASTOR								
1	Karnataka		5	3	667	7	5	677
22. RAPE & MUSTARD								
1	Haryana		482	691	1434	549	1108	2018
2	Jharkhand		64	60	935	305	218	715
3	Madhya Pradesh		600	707	1178	748	976	1305
23. LINSEED (ALSI)								
1	Karnataka		1	0.41	346	2	0.73	363
2	Madhya Pradesh		94	42	553	162	86	531
3	Maharashtra		11	3	293	11	3	293
24. SAFFLOWER								
1	Karnataka		32	29	940	34	28	818
25. SUNFLOWER								
2	Haryana	Rabi	8	13	1644	5	9	1886
3	Karnataka	Kharif	110	99	952	111	68	612
		Rabi	61	30	528	62	39	629
5	Tamil Nadu	Kharif	1	1	1734	1	1	1944
		Rabi	6	5	577	6	5	795
7	Telangana	Rabi	3	7	2135	3	6	2135
26. SOYABEAN								
1	Andhra Pradesh		0.37	1	1888	1	1	1889
2	Chhattisgarh		96	46	331	96	46	481
3	Karnataka		274	418	1608	277	253	913
4	Madhya Pradesh		6014	2748	457	5010	5321	1062
27. COTTON \$ (Lint)								
1	Andhra Pradesh		644	1067	684	646	2087	549
2	Gujarat		2627	4776	1598	2624	10187	660
3	Haryana		615	995	275	665	1627	416
4	Karnataka		510	172	603	547	1844	573
5	Madhya Pradesh		557	4017	1227	603	1620	457
6	Maharashtra		4351	1035	238	4351	6094	238
7	Rajasthan		584	5679	1652	584	1893	551
8	Tamil Nadu	Kharif	138	338	368	183	445	413

Sl. No.	S T A T E	SURVEY ESTIMATES			OFFICIAL ESTIMATES		
		Area in 000'ha.	Production in "000" tonnes	Yield in Kg./ha.	Area in '000'ha.	Production in "000" tonnes	Yield in Kg./ha.
1	2	3	4	5	6	7	8
28. JUTE. @@							
1	Bihar	83	200	2392	83	1110	2393
2	Meghalaya	7	68	1007	7	68	1847
3	Odisha	1	2	2492	1	13	2492
29. MESTA. @@							
1	Andhra Pradesh	5	8	1686	5	47	1700
2	Bihar	21	32	1568	21	170	1479

Note :-

1. @@ : Production of Jute and Mesta in `000' bales of 180 Kgs. each.
2. \$: Production of cotton in `000' bales of 170 Kgs. each.
3. : Data for Survey Estimates is repeated for th states: Haryana, Jharkhand, Madhya Pradesh & West Bengal

**ANNEX-VII : ESTIMATES OF YIELD RATES FROM IRRIGATED AND UN-IRRIGATED
PLOTS UNDER CES DURING 2017-18**

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
1. RICE								
1.	Andhra Pradesh	Kh.	3576	5116	1410	228	2989	67
		Rabi	2960	7122	741	-	-	-
2.	Assam	Aut.	198	1599	N.A.	924	1375	N.A.
		Wint.	88	2140	N.A.	2860	2088	N.A.
		Sum.	929	2918	N.A.	193	2058	N.A.
3.	Bihar @@	Bha.	242	2631	196	194	2569	327
		Agh.	28384	4315	1754	11852	3117	962
		Gar.				N.A.		
4.	Chhattisgarh		854	1658	1167	742	1122	2136
5.	Goa	Kh.	-	-	-	190	2619	27
		Rabi	157	2807	11	-	-	-
6.	Gujarat	Kh.				N.A.		
		Sum.						
7.	Haryana \$\$\$		974	3124	1277	-	-	-
8.	Himachal Pradesh					N.A.		
9.	Jammu & Kashmir		944	3138	232	110	2974	41
10.	Jharkhand					N.A.		
11.	Karnataka	Kh.	6462	5312	437	4753	3539	298
		Rabi	1037	3944	18	-	-	-
		Sum.	2409	5034	223	-	-	-
12.	Kerala	Aut.	838	2940	19	1783	2485	39
		Wint.	2674	3663	78	605	1488	3
		Sum.	1645	3090	50	33	2456	0.10
13.	Madhya Pradesh		1078	2050	697	1238	608	1238
14.	Maharashtra *	Kh.	1054	1484	296	1357	1725	680
		Sum.				N.A.		
15.	Meghalaya	Aut.	250	1519	33	-	-	-
		Wint.	750	1868	64	2	1291	0.001
16.	Odisha	Aut.	487	1770	26	6904	1182	504
		Wint.	5327	2035	835	12117	1613	2179
		Sum.	3425	3133	222	-	-	-
17.	Punjab		1970	4366	3065	-	-	-
18.	Rajasthan		1742	4370	137	874	1553	54
19.	Tamil Nadu	K/K/S	428	N.A.	234	0	N.A.	0
		S/T/P	1260	N.A.	1210	0	N.A.	0
		N/K	300	N.A.	276	0	N.A.	0
20.	Telangana	Kh.	1790	2821	1026	104	2437	17
		Rabi	2096	3567	915	-	-	-
21.	Uttarakhand		2240	3891	171	675	1741	68
22.	Uttar Pradesh					N.A.		
23.	West Bengal	Aus.	1423	2505	N.A.	588	2250	N.A.
		Aman.	6872	3114	N.A.	5867	2616	N.A.
		Sum.	10847	3319	N.A.	44	3097	N.A.

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
24.	Dadra & Nagar Haveli		-	-	-	78	1890	13
25.	Daman & Diu		-	-	-	20	2142	2
26.	Puducherry	I II III	80 140 70	3271 2687 3635	3 8 4	- - -	- - -	- - -
T O T A L			98000	3758	16834	54335	2203	8656
2. JOWAR								
1.	Andhra Pradesh	Kh. Rabi	178 430	1114 2750	30 110			
2.	Chhattisgarh		42	1339	2113	-	-	-
3.	Gujarat	Kh. Rabi	N.A. N.A.					
4.	Karnataka	Kh. Rabi Sum.	619 1667 32	3399 1889 2242	9 94 0.8	1823 7218 -	1467 1061 -	83 898 -
5.	Madhya Pradesh		-	-	-	1378	1491	N.A.
6.	Maharashtra * Rajasthan	Kh. Rabi	3589 2946	968 984	565 573	5210	550 2325	
7.	Rajasthan		271	611	1.01	9759	612.9	515
8.	Tamil Nadu	Kh. Rabi	140 312	N.A. N.A.	11 29	300 322	N.A. N.A.	230 115
9.	Telangana	Kh. Rabi	- 0	- 0	- 9.3	372 390	932 1308	42 13
10.	Uttar Pradesh				N.A.			
T O T A L			10226	955	3546	26772	825	4221
3. BAJRA								
1.	Andhra Pradesh	Kh.	470	1912	43.36			
2.	Gujarat	Kh. Sum.			N.A. N.A.			
3.	Haryana \$\$\$		1456	1738	393	-	-	-
4.	Karnataka	Kh.	620	2128	17	2395	1577	208
5.	Madhya Pradesh		-	-	-	302	1444	N.A.
6.	Maharashtra *		501	1444	27	932	975	357
7.	Rajasthan		2276	1129	160	23041	875	4076
8.	Tamil Nadu	Kh. Rabi	126 75	N.A. N.A.	5 2	114 129	N.A. N.A.	41 15
9.	Telangana		-	-	-	52	1154	0.5
10.	Uttar Pradesh				N.A.			
11.	Daman & Diu		0	0	0.0051	8	1333	0.508
T O T A L			5524	1293	649	26973	906	4698

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
4. MAIZE								
1.	Andhra Pradesh	Kh.	234	4678	107.27			
		Rabi	518	7956	229.3			
2.	Bihar	Bha.	443	2548	97	550	2287	126
		Rabi	-	-	-	358	6138	268
		Gar.	260	5241	154	72	4136	33
3.	Chhattisgarh		-	-	-	354	2310	100
4.	Gujarat					N.A.		
5.	Haryana \$\$\$		76	2000	9	-	-	-
6.	Himachal Pradesh					N.A.		
7.	Jammu & Kashmir		109	1984	28	903	1938	274
8.	Jharkhand					N.A.		
9.	Karnataka	Kh.	4364	4951	275	7076	4367	885
		Rabi	2102	3834	86	458	2603	12
		Sum.	528	3607	19		N.A	
10.	Madhya Pradesh		21	2710	N.A.	1747	1772	N.A.
11.	Maharashtra *	Kh.			N.A.			
		Rabi			N.A.			
12.	Odisha	Aut.	20	2010	0.10	2648	1825	44
		Wint.	24	2250	0.02	11	1264	0.4
		Sum.	246	2721	2	-	-	-
13.	Punjab		285	3877	2183	51	1709	16
14.	Rajasthan	Kh.	789	2222	5.61	10731	2000	850
15.	Tamil Nadu	Kh.	108	N.A.	51	148	N.A.	115
		Rabi	112	N.A.	78	64	N.A.	81
16.	Telangana	Kh.	538	5097	74	846	3152	386
		Rabi	1824	6782	165	10	4178	0.03
17.	Uttar Pradesh				N.A.			
18.	West Bengal		161	3798	N.A.	407	2488	N.A.
T O T A L			12762	4602	3563	26434	2651	3190
5. RAGI								
1.	Andhra Pradesh	Kh.	200	1131	26.64			
		Rabi	160	1775	7.81			
2.	Bihar		-	-	-	118	994	4.211
3.	Goa		-	-	-	10	696	0.015
4.	Gujarat				N.A.			
5.	Jharkhand				N.A.			
6.	Karnataka	Kh.	1255	2581	26.86	5641	2090	698
		Rabi	541	1876	22	253	1514	16
		Sum.	266	1840	5		N.A	
7.	Maharashtra *				N.A.			
8.	Odisha	Aut.	0	0	0	543	765	10
		Wint.	1	308	0.04	461	770	32
		Sum.	40	686	0.1	-	-	-
9.	Uttarakhand		18	1789	0.2	1076	1428	103

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
10.	Tamil Nadu	Kh.	115	N.A.	3	45	N.A.	59
		Rabi	200	N.A.	21	0	N.A.	3
11.	Telangana		-	-	-	36	1097	1
12.	Dadra & Nagar Haveli		-	-	-	22	1879	1.01
T O T A L			2796	1900	114	8205	1775	927
6. WHEAT								
1.	Assam		99	950	N.A.	545	1325	N.A.
2.	Bihar		30437	3014	1606	10158	2554.3	496
3.	Chhattisgarh		476	1404	63	166	882	16
4.	Gujarat					N.A.		
5.	Haryana \$\$\$		1917	3979	2628	-	-	-
6.	Himachal Pradesh					N.A.		
7.	Jammu & Kashmir		584	2727	90	992	1080	205
8.	Jharkhand					N.A.		
9.	Karnataka		2238	1595	119	934	602	71
10.	Madhya Pradesh		3950	3024	4944	1196	1498	447
11.	Maharashtra *		7002	1909	824	760	795	313
12.	Odisha	Sum.	22	2163	0.07	-	-	-
13.	Punjab		2320	5068	3497	10	3041	15
14.	Rajasthan					N.A.		
15.	Uttarakhand		1926	3272	205	1011	1507	128
16.	Uttar Pradesh					N.A.		
17.	West Bengal		2264	2628	N.A.	21	1716	N.A.
T O T A L			53235	2904	13976	15793	2054	1691
7. BARLEY								
1.	Bihar @@		-	-	-	180	1587	10
2.	Chhattisgarh		-	-	-	8	1017	1.3
3.	Haryana \$\$\$		358	3143	35	-	-	-
4.	Himachal Pradesh					N.A.		
5.	Jharkhand					N.A.		
6.	Madhya Pradesh		-	-	-	500	1670	N.A.
7.	Punjab		240	3854	8	-	-	-
8.	Rajasthan					N.A.		
9.	Uttarakhand		82	1425	0.5	573	1396	20
10.	Uttar Pradesh					N.A.		
T O T A L			680	3187	43	1261	46497719	32

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
8. GRAM (BENGALGRAM)								
1.	Andhra Pradesh		1292	1132	520.38	-	-	-
2.	Bihar		-	-	-	714	1154	58
3.	Chhattisgarh		-	-	-	360	884	296
4.	Gujarat					N.A.		
5.	Haryana \$\$\$		251	728	32	266	290	50
6.	Jharkhand					N.A.		
7.	Karnataka		1632	944	155	6146	760.53	1106
8.	Madhya Pradesh		2104	1260	N.A.	2202	1013	N.A.
9.	Maharashtra *		2280	1094	856	3219	807	1378
10.	Punjab		100	1126	1.7	-	-	-
11.	Rajasthan					N.A.		
12.	Telangana		90	1667	19	604	1389	75
13.	Uttar Pradesh					N.A.		
14.	West Bengal		104	1067	N.A.	526	1023	N.A.
T O T A L			7853	1108	1585	14037	862	2963
9. REDGRAM (TUR/ ARHAR)								
1.	Andhra Pradesh		1148	424	275	-	-	-
2.	Bihar		-	-	-	462	1548	138
3.	Chhattisgarh		-	-	-	494	470	38
4.	Gujarat					N.A.		
5.	Haryana \$\$\$		248	991	5	-	-	-
6.	Jharkhand					N.A.		
7.	Karnataka		716	1063	40	6123	964	835
8.	Madhya Pradesh		280	841	N.A.	994	572	N.A.
9.	Maharashtra *					N.A.		
10.	Tamil Nadu		24	N.A.	1.35	312	N.A.	44
11.	Telangana		122	636	2	1174	801	323
12.	Uttar Pradesh					N.A.		
13.	West Bengal		3	-	N.A.	97	1192	N.A.
T O T A L			2541	711	324	9656	877	1378
10. GREENGRAM (MOONG)								
1.	Andhra Pradesh	Kh.	348	595	18.01	-	-	-
		Rabi	390	671	121.49	-	-	-
2.	Bihar	Bha.	-	-	-	96	777	5.847
		Gar.	-	-	-	406	707	170
3.	Gujarat	Kh.				N.A.		
4.	Karnataka	Kh.		N.A.		3163	350.24	387
		Rabi		N.A.		78	159	2.39
5.	Maharashtra *					N.A.		
6.	Odisha	Aut.	0	0	0	527	319	26
		Wint.	43	435	0.5	1084	310	82
		Sum.	548	493	9	1228	447	118
7.	Rajasthan					N.A.		

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
8.	Tamil Nadu	Kh.	32	N.A.	1.05	100	N.A.	28
		Rabi	16	N.A.	12	292	N.A.	139
9.	Telangana	Kh.	34	1068	0.1	618	647	85
		Rabi	77	826	3	79	802	2.2
10.	Uttar Pradesh	Kh.			N.A.			
		Zaid			N.A.			
11.	West Bengal		151	960	N.A.	495	799	N.A.
T O T A L			1639	612	166	8166	380	1045

11. BLACKGRAM (URD/MATHIKALAI)

1.	Andhra Pradesh	Kh.	310	823	46	-	-	-
		Rabi	634	933	357	-	-	-
2.	Assam		-	-	-	472	668	N.A.
3.	Gujarat	Rabi						
4	Karnataka	Kh.		N.A.		1082	558.3	122
		Rabi		N.A.		72	460	2.55
5.	Maharashtra *				N.A.			
6.	Odisha	Aut.	0	0	0	662	314	20
		Wint.	15	419	0.3	1771	358	42
		Sum.	190	482	3	376	509	11
7.	Rajasthan @		5	902	1	1177	458	252
8.	Tamil Nadu	Kh.	112	N.A.	19	0	N.A.	39
		Rabi	72	N.A.	67	236	N.A.	301
9.	Telangana	Kh.	0	0	0.47	204	794	28
		Rabi	88	961	1.1	26	748	0.78
10.	Uttar Pradesh	Kh.			N.A.			
		Zaid			N.A.			
11.	West Bengal		34	583	N.A.	1046	684	N.A.
T O T A L			1460	533	494	7124	480	821

12. LAKH (KHESARI)

1.	Bihar		-	-	-	346	1057	47.591
2.	Chhattisgarh		-	-	-	322	601	214
3.	Madhya Pradesh		-	-	-	204	760	N.A.
4.	West Bengal		30	1005	N.A.	269	1080	N.A.
T O T A L			30	1005	-	1141	560	-

13. MASUR

1.	Bihar		-	-	-	872	1068	138.162
2.	Rajasthan				N.A.			
3.	Uttar Pradesh				N.A.			
4.	West Bengal		442	826	N.A.	1754	815	N.A.
T O T A L			442	826	-	2626	899	-

14. HORSEGRAM (KULTHI)

1.	Andhra Pradesh	Kh.	120	420	17	-	-	-
		Rabi	270	691	22	-	-	-
2.	Karnataka	Kh.			N.A.	1799	718.35	46
		Rabi			N.A.	2961	635	123

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS			
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	
1	2	3	4	5	6	7	8	9	
3.	Odisha	Wint.	9	605	0.39	1912	414	25	
		Sum.	-	-	-	23	381	0.37	
4.	Tamil Nadu		42	N.A.	3	278	N.A.	53	
5	Telangana	Kh.	-	-	-	-	-	-	
		Rabi	-	-	-	-	-	-	
T O T A L			441	550	42	6973	491	248	
15. PEAS									
1.	Uttar Pradesh					N.A.			
2.	West Bengal		97	1054	N.A.	164	1207	N.A.	
T O T A L			97	1054	-	164	1207	-	
16. MOTH									
1.	Gujarat					N.A.			
2	Rajasthan		-	-	-	-	-	-	
T O T A L			-	-	-	-	-	-	
17. CHOWLA									
1.	Rajasthan					N.A.			
18 . GUAR									
1.	Gujarat					N.A.			
2	Rajasthan @		339	966	199	2797	575	2895	
T O T A L			339	966	199	2797	575	2895	
19 . SAWAN (Jhangora)									
1.	Uttarakhand		2	1410	0.02	588	1351	50	
2	Uttar Pradesh	Kh.				N.A.			
		Zaid				N.A.			
T O T A L			2	1410	0.02	588	1351	50	
20. KORRA									
1.	Andhra Pradesh		204	1084	11.09	-	-	-	
2	Telangana		0	0	0	10	1405	0.059	
TOTAL			204	1084	11	10	1405	0.059	
21. KODON-KUTKI (KODRA)									
1.	Chhattisgarh		-	-	-	232	216	64	
2.	Madhya Pradesh		-	-	-	790	450	N.A	
3.	Uttar Pradesh	Kodan				N.A.			
T O T A L			-	-	-	1022	397	-	
22. NAVANE									
1.	Karnataka			N.A		561	546.88	18	
23. SAVE									
1.	Karnataka			N.A		227	947	13	
24. SAMAI									
1.	Tamil Nadu		100	N.A.	16	-	-	-	
25. VARAGU									
1.	Tamil Nadu		16	N.A.	0.065	108	N.A.	2	
26. SUGARCANE									
1.	Andhra Pradesh	Plt.	814	84000	43	-	-	-	
		Rt.	764	76000	61	-	-	-	

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
2.	Assam		-	-	-	530	35573	N.A.
3.	Bihar		277	59091	208	313	59525	26
4.	Goa		-	-	-	74	51824	0.9
5	Haryana \$\$\$		848	73281	96	-	-	-
6	Jharkhand					N.A.		
7.	Karnataka		727	95720	226	N.A.		
8.	Kerala					N.A.		
9.	Maharashtra *					N.A.		
10.	Odisha		129	64704	4	-	-	-
11.	Punjab		1970	83580	96	-	-	-
12.	Rajasthan					N.A.		
13.	Tamil Nadu		468	N.A.	172	-	-	-
14.	Telangana	Plt.	104	85000	17	0	0	0
		Rt.	104	78000	9	0	0	0
15.	Uttar pradesh					N.A.		
16.	West Bengal		364	29578	N.A.	19	62387	N.A.
T O T A L			6569	72348	931	936	45412	26

27. COCOA

1.	Kerala		N.A.
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28. CHILLIES

1.	Andhra Pradesh	Kh.	336	5064	102	-	-	-
		Rabi	374	4689	17	-	-	-
2.	Bihar		-	-	-	218	1910	1.51
3.	Chhattisgarh		4	353	0.14	-	-	-
4.	Karnataka	Kh.		N.A.		621	2063	54.14
		Rabi				N.A		
		Sum.				N.A		
5.	Madhya Pradesh		48	573	N.A.	-	-	-
6.	Telangana	Kh.	452	4410	60	6	1527	1.57
		Rabi	198	5449	9	0	0	0
T O T A L			1412	4643	188	845	2044	57

29. CUMIN

1	Gujarat		-	-	-	-	-	-
2.	Rajasthan @		1549	381	465	15	356	1
T O T A L			1549	381	465	15	356	1

30. FENNEL

1.	Gujarat		-	-	-	-	-	-
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31. ARECANUT

1.	Kerala			N.A.
2.	Maharashtra *			N.A.
T O T A L			-	-

32. PEPPER

1.	Kerala			N.A.
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33. SAFFRON

1.	Jammu & Kashmir			N.A.
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ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
34. TURMERIC								
1.	Kerala					N.A.		
35. GINGER								
1.	Kerala					N.A.		
2.	Meghalaya		-	-	-	622	7781	10
T O T A L			-	-	-	622	7781	10
36. GARLIC								
1.	Gujarat		-	-	-	-	-	-
37. CORIANDER								
1.	Rajasthan					N.A.		
38. LICHI								
1.	Bihar		-	-	-	244	6513	9
39. BANANA								
1.	Bihar		-	-	-	264	16238	11
2.	Gujarat					N.A.		
3.	Kerala					N.A.		
4.	Madhya Pradesh ##		80	158733	N.A.	-	-	-
T O T A L			80	158733	-	264	16590	11
40. MANGO								
1.	Bihar		-	-	-	388	31092	57
41. GUAVA								
1.	Bihar		-	-	-	156	10697	0.92
42. JACKFRUIT								
1.	Bihar		-	-	-	232	22895	4.5
2.	Kerala					N.A.		
T O T A L			-	-	-	232	22895	4.5
43. CASHEWNUT								
1.	Kerala					N.A.		
2.	Maharashtra *					N.A.		
T O T A L			-	-	-	-	-	-
44. TAPIOCA								
1.	Kerala					N.A.		
45. PINE APPLE								
1.	Kerala					N.A.		
46. POTATO								
1.	Assam		88	1345	-	492	835	N.A.
2.	Bihar	Agh. Rabi	- -	- -	- -	178 398	13430 14297	68 88
3.	Chhattisgarh		-	-	-	30	4474	1.70
4.	Gujarat		-	-	-	-	-	-
5.	Jammu & Kashmir	Kh. Rabi				N.A. N.A.		
6.	Jharkhand	Agh. Rabi				N.A. N.A.		
7.	Karnataka	Kh. Rabi	131 -	12978 -	3.83 -	354 240	9585 19186	19 3.36

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
8.	Madhya Pradesh		346	14329	N.A.	-	-	-
9.	Meghalaya	Sum.	-	-	-	288	15708	11
10.	Odisha	Wint.	1452	10543	4	-	-	-
11.	Uttar Pradesh	Rabi				N.A.		
T O T A L			2017	10949	-	1980	10680	190
47. ONION								
1.	Bihar		-	-	-	290	14146	13
2.	Chhattisgarh		12	6899	288	-	-	-
3.	Gujarat		-	-	-	-	-	-
4.	Jharkhand					N.A.		
5.	Karnataka	Kh.		N.A.		1882	11784	112
		Rabi		N.A.		383	12999	13
		Sum.		N.A.		141	13049	1.45
6.	Madhya Pradesh ##		454	14061	N.A.	554	595	N.A.
7.	Uttar Pradesh	Rabi				N.A.		
		Zaid				N.A.		
T O T A L			466	13877	-	3250	10286	140
48. BRINJAL								
1.	Bihar	Agh.	-	-	-	218	11291	19
		Rabi	-	-	-	258	9057	8
2.	Jharkhand	Agh.				N.A.		
		Rabi				N.A.		
T O T A L			-	-	-	476	214256	167
49. TOMATO								
1.	Bihar	Agh.	-	-	-	136	13470	8.146
		Rabi	-	-	-	200	11940	6.138
2.	Jharkhand	Agh.				N.A.		
		Rabi				N.A.		
T O T A L			-	-	-	336	0	14
50. CAULIFLOWER								
1.	Bihar		-	-	-	266	13455	30
51. PAPAYA (PAPITA)								
1.	Madhya Pradesh ##		30	227826	N.A.	-	-	-
52. PLANTAIN								
1.	Kerala					N.A.		
53. METHI								
1.	Rajasthan					N.A.		
54. GROUNDNUT								
1.	Andhra Pradesh	Kh.	568	1291	118	-	-	-
		Rabi	800	2435	87	-	-	-
2.	Chhattisgarh		-	-	-	152	1264	13
3.	Goa	Kh.	-	-	-	20	2325	0.28
		Rabi	42	2243	1.257	-	-	-
4.	Gujarat	Kh.	-	-	-	-	-	-
		Sum.	-	-	-	-	-	-

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
5.	Karnataka	Kh.	1111	1393	22	5631	1060	364
		Rabi	-	-	-	130	2376	3.35
		Sum.	3151	1152	96	-	-	-
6.	Madhya Pradesh		124	634	N.A.	668	1061	N.A.
7.	Maharashtra *	Kh.			N.A.			
		Sum.			N.A.			
8.	Odisha	Aut.	0	0	0	1108	899	14.41
		Wint.	13	1553	0.3	91	1314	1.55
		Sum.	884	1661	7.57	483	1006	9.52
9.	Rajasthan @		800	2108	316	878	1430	96
10.	Tamil Nadu	Kh.	679	N.A.	25	21	N.A.	164
		Rabi	446	N.A.	119	14	N.A.	20
11.	Telangana	Kh.	0	0	8.6	188	2344	10.1
		Rabi	1154	2218	143	0	0	0.26
12.	Uttar Pradesh				N.A.			
13.	West Bengal		462	2387	N.A.	62	1946	N.A.
T O T A L			10234	1453	944	9446	1075	696
55. SESAMUM (GINGELLY)								
1.	Andhra Pradesh	Kh.	270	220	13.54	-	-	-
		Rabi	310	302	2.23	-	-	-
2.	Chhattisgarh		-	-	-	154	301	14
3.	Gujarat		-	-	-	-	-	-
4.	Karnataka			N.A.		1370	941	34
5.	Kerala				N.A.			
6.	Madhya Pradesh		-	-	-	1314	374	N.A.
7.	Maharashtra *	Kh.			N.A.			
		Rabi			N.A.			
8.	Odisha	Aut.	0	0	0	192	245	2.44
		Wint.	9	427	0.03	528	287	10.49
		Sum.	76	379	0.43	68	245	1.42
9.	Rajasthan @		107	478	4	2413	336	506
10.	Tamil Nadu	Kh.	54	N.A.	3	108	N.A.	10
		Rabi	218	N.A.	18	34	N.A.	11
11.	Telangana	Kh.	0	0	0.16	56	170	0.47
		Rabi	180	577	14	0	0	0
12.	Uttar Pradesh				N.A.			
13.	West Bengal		2098	913	N.A.	639	760	N.A.
T O T A L			3322	660	55	6876	487	590
56. CASTOR.								
1.	Andhra Pradesh		232	651	30.9	-	-	-
2.	Gujarat		-	-	-	-	-	-
3	Karnataka			N.A.		431	667	5
4	Rajasthan				N.A.			
5	Telangana		5	1127	0.002	145	918	28
T O T A L			237	661	31	576	237	5

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
57. RAPE & MUSTARD								
1.	Assam		24	667	N.A.	1064	679	N.A.
2.	Bihar		-	-	-	1018	1245	83
3.	Chhattisgarh		-	-	-	260	438	21
4.	Gujarat		-	-	-	-	-	-
5.	Haryana \$\$\$		835	1434	482	-	-	-
6.	Jammu & Kashmir				N.A.			
7.	Jharkhand				N.A.			
8.	Madhya Pradesh		512	1013	N.A.	484	634	N.A.
9.	Odisha	Wint.	635	502	2.33	1059	260	6.32
10.	Punjab		565	1508	30.4	1	1959	0.1
11.	Rajasthan @		6298	1394	2439	758	1082	286
12.	Uttar Pradesh			N.A.				
13.	West Bengal		3969	997	N.A.	428	695	N.A.
T O T A L			12838	1218	2954	5072	750	396
58. LINSEED								
1.	Chhattisgarh		-	-	-	174	262	16
2.	Jammu & Kashmir				N.A.			
3.	Karnataka		N.A.			87	346	1.25
4.	Madhya Pradesh		-	-	-	802	448	N.A.
5.	Maharashtra *				N.A.			
6.	Uttar Pradesh	Zaid	N.A.					
7.	West Bengal		9	-	-	122	254	N.A.
T O T A L			9	-	-	1185	393	17
59. SAFFLOWER								
1.	Karnataka		N.A.			1163	941	32
2.	Maharashtra *				N.A.			
T O T A L			-	-	-	1163	941	32
60. SUNFLOWER								
1.	Andhra Pradesh	Kh.	172	758	2.89	-	-	-
		Rabi	210	1544	6.1	-	-	-
2.	Haryana \$\$\$	Rabi	92	4571	7	-	-	-
3.	Karnataka	Kh.	172	1868	9.69	1582	1599	264
		Rabi	491	1209	8.27	507	360	49
		Sum.	237	1265	3.47	-	-	-
4.	Maharashtra *	Kh.			N.A.			
		Rabi			N.A.			
		Sum.			N.A.			
5.	Tamil Nadu	Kh.	4	N.A.	3	0	N.A.	0
		Rabi	56	N.A.	7	136	N.A.	6
6.	Telangana	Kh.	0	0	0	0	0	0
		Rabi	116	2227	3	0	0	0
7.	Uttar Pradesh	Zaid			N.A.			
T O T A L			1550	1515	50	2225	1219	319

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS		
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.
1	2	3	4	5	6	7	8	9
61. SOYABEAN								
1.	Andhra Pradesh		28	1888	0.37	-	-	-
2.	Chhattisgarh		-	-	-	142	331	90
3.	Karnataka		172	1868	10	1582	1599	264
4.	Madhya Pradesh		-	-	-	2450	457	N.A.
5.	Maharashtra *					N.A.		
6.	Rajasthan @		17	1167	107	945	1568	788
7.	Telangana		174	1972	19	428	1440	132
8.	Uttar Pradesh					N.A.		
T O T A L			391	1331	136	5547	1045	1274
62. TARA MEERA								
1.	Rajasthan					N.A.		
63. COCONUT #								
1.	Kerala					N.A.		
2.	Maharashtra *					N.A.		
T O T A L			-	-	-	-	-	-
64. NIGER								
1.	Maharashtra *					N.A.		
65. COTTON (LINT)								
1.	Andhra Pradesh		942	37584	35.4	-	-	-
2.	Gujarat		-	-	-	-	-	-
3.	Haryana \$\$\$		696	509	647	-	-	-
4.	Karnataka		1226	824	150	1791	360	6
			20	232	0.3	103	125	20.76
			-	-	-	-	-	-
5.	Madhya Pradesh		588	1317	N.A.	231	982	N.A.
6.	Maharashtra *		1554	311	382	1628	186	1777
7.	Punjab		680	709	291	-	-	-
8.	Rajasthan		5719	1617	566	289	1505	18
9.	Tamil Nadu	Kh.	62	N.A.	19	502	N.A.	24
		Rabi	54	N.A.	19	202	N.A.	
10	Telangana		474	1469	262	898	1456	1635
11	Uttar Pradesh					N.A.		
T O T A L			12015	4033	2372	5644	519	3481
66. JUTE								
1.	Assam		-	-	-	517	2130	N.A.
2.	Bihar		-	-	-	92	2392	83
3.	Meghalaya		-	-	-	52	1007	7
4.	Odisha		0	0	0	40	2492	0.95
5.	West Bengal		1948	2940	N.A.	625	2437	N.A.
T O T A L			1948	2940	0	1326	2260	91
67. MESTA								
1.	Andhra Pradesh		0	0	0	200	1686	7.83
2.	Bihar		-	-	-	72	1568	83
3.	West Bengal		77	2570	N.A.	124	1658	N.A.
T O T A L			77	2570	-	396	1656	-

ANNEX -VII (Contd...)

Sl. No.	S T A T E	Season	IRRIGATED PLOTS			UN - IRRIGATED PLOTS			
			No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	No. of Expts. Analysed	Yield Rate Kg/ha.	Area '000' ha.	
1	2	3	4	5	6	7	8	9	
68. TOBACCO									
1.	Andhra Pradesh	(N)	292	2935	21.71	-	-	-	
		(V)	352	1890	61.5	-	-	-	
2.	Gujarat		-	-	-	-	-	-	
3.	Karnataka		32	1689	8.54	193	987	84	
4.	Maharashtra *				N.A.				
5	Telangana	(N)	10	1301	0.12	0	0	0	
		(V)	26	2846	0.68	0	0	0	
6	Uttar Pradesh				N.A.				
T O T A L			712	2123	93	193	987	84	
69. ISABGOL									
1	Gujarat				N.A.				
2	Rajasthan				N.A.				
T O T A L			-	-	-	-	-	-	
70. AVARE (SEM)									
1	Karnataka	Kharif		N.A.		985	1107	47	
		Rabi		N.A.		10	831	2.46	
T O T A L			-	-	-	995	1093	49	
71. COWPEA (LOBIA)									
1.	Karnataka	Kharif	-	-	-	742	258	71	
		Rabi	-	-	-	-	-	-	
		Sum.	48	310	1.06	-	-	-	
1	Kerala	Kharif	-	-	-	35	959	0.195	
		Rabi	148	867	5	-	-	-	
T O T A L			196	775	6	777	260	71	
72. TAMARIND									
1.	Kerala				N.A.				
73. NUTMEG									
1.	Kerala				N.A.				
74. BETAL LEAVES									
1.	Kerala				N.A.				

Note:-

1. @ : Figures repeated from the year 2011-12 for Crops Soyabean, Cumin, Blackgram, Guar, Groundnut, Sesamum, Cumin and Rape & Mustard in Rajasthan.
2. ## : Figures repeated from the year 2013-14 for the crops Banana, Onion and Papaya for Madhya Pradesh.
3. *** : Figures repeated from the year 2011-12 in respect of Crop Cowpea and for the year 2014-15 for all other crops for Karnataka .
4. @ @ : Figures repeated for the crops Rice (Bhadai & Garma) and Barley from the year 2013-14 in the State of Bihar.
5. \$\$\$: Figures repeated from the year 2014-15.

ANNEX - VIII:- ESTIMATES OF YIELD RATE FOR IRRIGATED AND UNIRRIGATED PLOTS ACCORDING TO HIGH YIELDING AND LOCAL VARIETIES UNDER CES 2017-18

Sl. No.	STATE	I R R I G A T E D						U N - I R R I G A T E D					
		HIGH YIELDING VARIETIES			LOCAL VARIETIES			HIGH YIELDING VARIETIES			LOCAL VARIETIES		
		NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. RICE													
1.	Andhra Pradesh	Kh.	3576	5116	1410	-	-	-	228	2989	67	-	-
		Rabi	2960	7122	741	-	-	-	-	-	-	-	-
2.	Assam	Aut.	47	1799	N.A.	151	1537	N.A.	54	1979	N.A.	870	1337
		Wint.	29	2402	N.A.	59	2011	N.A.	268	2344	N.A.	2592	2061
		Sum.	583	3072	N.A.	346	2660	N.A.	54	2912	N.A.	139	1726
3.	Bihar @@	Bha.	242	2631	196	-	-	-	-	-	-	194	2569
		Agh.	22608	4829	1361	5776	2537	393	10092	3672	578	1760	2282
		Gar.											
4.	Chhattisgarh		496	2120	679	358	1015	488	-	-	-	742	1122
5.	Goa	Kh.	-	-	-	-	-	-	190	2619	27	-	-
		Rabi	157	2807	11	-		-	-	-	-	-	-
6.	Gujarat	Kh.							N.A.				
		Sum.											
7.	Haryana		408	3514	535	566	2817	742	-	-	-	-	-
8.	Himachal Pradesh								N.A.				
9.	Jammu & Kashmir		232	3950	40	712	2874	192	48	3592	20	62	2495
10.	Jharkhand	Agh.							N.A.				
11.	Karnataka	Kh.	5893	5374	423	569	3381	13.54	2605	3938	224	2148	2333
		Rabi	943	3947	18	94	3559	0.13	-	-	-	-	-
		Sum.	2401	5034	223	8	3420	0.07	-	-	-	-	-
12.	Kerala	Aut.	825	2699	19	13	1510	0.003	1602	2508	39	181	1372
		Wint.	2220	2798	73	454	1826	4.34	219	2342	1.3	386	1203
		Sum.	1588	3092	50	47	1034	0.052	27	2310	0.09	6	1835
13.	Madhya Pradesh		682	2063	N.A.	396	2008	N.A.	-	-	-	1238	608
14.	Maharashtra	Kh.	1054	1484	296	-	-	-	1357	1725	680	-	-
		Comp.	1560	2353	449	-	-	-	-	-	-	-	-
		Sum.							N.A.				
15.	Meghalaya	Aut.	-	-	-	250	1519	33	-	-	-	-	-
		Wint.	12	3072	0.07	738	1849	64	-	-	-	2	1291
16.	Odisha	Aut.	477	1775	25	10	1557	1.35	5854	1215	455	1050	1001
		Wint.	5274	2037	830	53	1708	5	11059	1636	2045	1058	1259
		Sum.	3425	3133	222	-	-	-	-	-	-	-	-
17.	Punjab		1970	4366	3065	-	-	-	-	-	-	-	-
18.	Rajasthan		873	4449	62	869	4304	75	79	1515.3	9	795	1561

ANNEX -VIII (Contd...)

Sl. No.	STATE	I R R I G A T E D						U N - I R R I G A T E D						
		HIGH YIELDING VARIETIES			LOCAL VARIETIES			HIGH YIELDING VARIETIES			LOCAL VARIETIES			
		NO. OF EXPTS.	YIELD Kg/ha.	AREA '000' ha.	NO. OF EXPTS.	YIELD Kg/ha.	AREA '000' ha.	NO. OF EXPTS.	YIELD Kg/ha.	AREA '000' ha.	NO. OF EXPTS.	YIELD Kg/ha.	AREA '000' ha.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
19.	Tamil Nadu	K/K/S	428	N.A.	231	-	-	3	-	-	0.83	-	-	0.11
		S/T/P	1260	N.A.	1205	-	-	5	-	-	107	-	-	0.75
		N/K	300	N.A.	273	-	-	3	-	-	0.13	-	-	0.081
20.	Telangana	Kh.	1790	2821	1026	-	-	-	104	2437	17	-	-	-
		Rabi	2096	3567	915	-	-	-	-	-	-	-	-	-
21.	Uttarakhand		1700	4223	140	540	2844	31	0	0	4	675	1741	64
22.	Uttar Pradesh													
23.	West Bengal	Aus.	1388	2521	N.A.	35	1853	N.A.	470	2352	N.A.	118	1843	N.A.
		Aman	6469	3163	N.A.	403	2336	N.A.	4940	2723	N.A.	927	2043	N.A.
		Sum.	10681	3321	N.A.	403	2336	N.A.	4940	2723	N.A.	-	-	N.A.
24.	Dadra & Nagar Haveli		-	-	-	-	-	-	-	-	-	78	1890	13
25.	Daman & Diu		0	0	0	0	0	-	10	2137	1	10	2148	0.89
26.	Puducherry	I	98	3265	4	-	-	-	-	-	-	-	-	-
		II	140	2718	8	-	-	-	-	-	-	-	-	-
		III	70	3453	4	-	-	-	-	-	-	-	-	-
2. JOWAR														
1.	Andhra Pradesh	Kh.	0	0	0	178	1114	30	0	0	0	0	0	0
		Rabi	0	0	0	430	2750	110	0	0	0	0	0	0
2.	Chhattisgarh		-	-	-	42	1339	2113	-	-	-	-	-	-
3.	Gujarat	Kh.												
		Rabi												
4.	Karnataka	Kh.	619	3399	9	-	-	-	1536	1776	60	287	630	22
		Rabi	1354	2049	79	313	1047	15	5279	1125	756	1939	716	142
		Sum.	32	2242	0.82	-	-	-	-	-	-	-	-	-
5.	Madhya Pradesh		-	-	-	-	-	-	676	1591	N.A.	702	1021	N.A.
6.	Maharashtra	Kh.	3589	968	5654	-	-	-	-	-	-	-	-	-
		Rabi	2946	984	5732	-	-	-	5210	550	23254	-	-	-
7.	Rajasthan		38	530	500	233	691	514	4946	644	322	4813	561	193
8.	Tamil Nadu		342	N.A.	3.6	110	N.A.	4.9	622	N.A.	309	-	N.A.	345
9.	Telangana	Kh.	-	-	-	0	0	0	-	-	-	372	932	42
		Rabi	-	-	-	0	0	9.3	-	-	-	390	1308	13
10.	Uttar Pradesh													

ANNEX -VIII (Contd...)

Sl. No.	STATE	I R R I G A T E D						U N - I R R I G A T E D					
		HIGH YIELDING VARIETIES			LOCAL VARIETIES			HIGH YIELDING VARIETIES			LOCAL VARIETIES		
		NO. OF EXPTS.	YIELD RATES	AREA '000'	NO. OF EXPTS.	YIELD RATES	AREA '000'	NO. OF EXPTS.	YIELD RATES	AREA '000'	NO. OF EXPTS.	YIELD RATES	AREA '000'
		ANALY- SED	Kg/ha.	ha.	ANALY- SED	Kg/ha.	ha.	ANALY- SED	Kg/ha.	ha.	ANALY- SED	Kg/ha.	ha.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
3. BAJRA													
1.	Andhra Pradesh	0	0	0	470	1912	43.367	0	0	0	0	0	0
2.	Gujarat	Kh. Sum.	N.A.										
3.	Haryana		1378	1557	365	78	1307	28	-	-	-	-	-
4.	Karnataka	Kh.	620	2128	17	-	-	-	2331	1580	206	64	1288
5.	Madhya Pradesh		-	-	-	-	-	224	1637	N.A.	78	890	N.A.
6.	Maharashtra		501	1444	271	-	-	-	932	975	3569	-	-
7.	Rajasthan		1796	1279	109	480	812	52	14315	1116	1955	8726	652
8.	Tamil Nadu		201	N.A.	8	-	N.A.	0	243	N.A.	53	-	N.A.
9.	Telangana		-	-	-	-	-	-	-	-	52	1154	1
9.	Uttar Pradesh		N.A.										
10	Daman & Diu		0	0	0	0	0	0	0	0	8	1333	1
4. MAIZE													
1	Andhra Pradesh	Kh. Rabi	0	0	0	234	4678	107	0	0	0	0	0
			0	0	0	518	7956	229	0	0	0	0	0
2.	Bihar	Bha. Rabi Gar.	443	2548	97	-	-	-	-	-	-	550	2287
			-	-	-	-	-	-	-	-	-	358	6138
			260	5241	154	-	-	-	-	-	-	72	4136
3.	Chhattisgarh		-	-	-	-	-	-	-	-	-	354	2310
4.	Gujarat		N.A.										
5.	Haryana		52	2409	6	24	2070	3	-	-	-	-	-
6.	Himachal Pradesh		N.A.										
7.	Jammu & Kashmir		26	2191	5	83	1919	23	171	2116	70	732	1896
8.	Jharkhand		N.A.										
9.	Karnataka	Kh. Rabi Sum.	4364	4951	275	-	-	-	7056	4367	885	20	4462
			2139	4188	87	-	-	-	180	2749	6	-	-
			249	4171	12	-	-	-	-	-	-	-	-
10.	Madhya Pradesh		15	2733	N.A.	6	2561	N.A.	648	1899	N.A.	1099	1679
11.	Maharashtra	Kh. Rabi	N.A.										
12.	Odisha		20	2010	0	0	0	0	1596	2181	38	1052	1284
		Aut.	23	2312	0	1	1200	0	8	1239	0	3	1292
		Wint.	240	2724	2	6	1333	0	-	-	-	-	-

ANNEX -VIII (Contd...)

Sl. No.	STATE	I R R I G A T E D						U N - I R R I G A T E D						
		HIGH YIELDING VARIETIES			LOCAL VARIETIES			HIGH YIELDING VARIETIES			LOCAL VARIETIES			
		NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.	NO. OF EXPTS.	YIELD RATES	AREA '000' Kg/ha.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
13	Punjab	Kh.	277	3988	89	8	32	2094	26	1557	8	25	1867	8
14.	Rajasthan	Kh.	639	2055	5	150	29927	1	4595	2072	511	6136	1892	339
15	Tamil Nadu		220	N.A.	128	-	N.A.	1	212	N.A.	195	-	N.A.	0
16	Telangana	Kh.	-	-	-	538	5097	74	-	-	-	846	3152	386
		Rabi	-	-	-	1824	6782	165	-	-	-	10	4178	0
17.	Uttar Pradesh													
18.	West Bengal		112	4107	N.A.	49	3093	N.A.	207	3040	N.A.	200	1917	N.A.
5. WHEAT														
1.	Assam		N.A.	N.A.	N.A.	99	950	N.A.	196	1347	N.A.	349	1313	N.A.
2.	Bihar		30402	3026	1571	35	2455	35	9603	2574	460	555	2303	36
3.	Chhattisgarh		332	1474	43	144	1247	19	-	-	-	166	882	16
4.	Gujarat													
5.	Haryana		1822	3846	2498	95	3314	130	-	-	-	-	-	-
6.	Himachal Pradesh													
7.	Jammu & Kashmir		538	2804	84	46	1822	6	476	2280	115	516	1865	90
8.	Jharkhand													
9.	Karnataka		2103	1637	112	135	913	7	744	731	33	190	488	38
10.	Madhya Pradesh		2824	3096	4044	1126	2698	900	0	0	0	1196	1498	0
11.	Maharashtra		7002	1909	8244	-	-	-	760	795	3133	-	-	-
12.	Odisha	Sum.	17	2224	0	5	1340	0	-	-	-	-	-	-
13.	Punjab		2320	5068	3497	0	0	0	10	3041	15	0	0	0
14.	Rajasthan													
15.	Uttarakhand		1663	3489	176	263	1898	29	26	1986	4	985	1494	124
16	Uttar Pradesh													
17.	West Bengal		2167	2648	N.A.	97	2181	N.A.	15	1716	N.A.	6	-	N.A.

Note:

1. @@ : Figures repeated for the crops of Rice (Gar. & Bha.) and Barley from the year 2013-14 for Bihar.

ANNEX - IX : PERCENTAGE AREA UNDER IMPROVED AGRICULTURAL PRACTICES UNDER CES 2017-18										
Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
1. PADDY										
1.	Andhra Pradesh	Kh.Ir.	-	89	11	52	47	1	66	34
		Kh.UI.	-	74	26	32	48	20	22	78
		Rabi.Ir.	-	92	8	65	34	1	72	28
2.	Assam	Aut.	-	9	91	41	19	40	12	88
		Wint.	-	10	90	36	14	50	6	94
		Sum.	-	57	43	84	4	12	13	87
3.	Bihar	Bha.	13		87					
		Agh.	76		24					
		Gar.	17		83					
4.	Chhattisgarh	Hyv.Ir.	-	95	5	99	0	1	0	100
		Lv. Ir.	-	60	40	3	0	97	0	100
		UI.	-	57	43	73	15	12	0	100
5.	Goa	Kh.	100	-	-	90	10	-	35	65
		Rabi	100	-	-	85	15	-	20	80
6.	Gujarat	Ir.								
		UI.								
		Sum.								
7.	Haryana		-	58	42	100	0	0	71	29
8.	Himachal Pradesh									
9.	Jammu & Kashmir									
10.	Jharkhand	Bha.	-	-	100	70	30	-	-	-
		Agh.	60	-	40	40	60	-	-	-
11.	Karnataka ***	Kh. Hyv.Ir.	100	-	0	96	1	4	45	55
		Kh.Hyv.UI.	100	-	0	92	5	4	17	83
		Kh.Tra.Ir.	0	-	100	94	5	1	20	80
		Kh.Tra.UI.	0	-	100	98	2	0	27	73
		Rabi Hyv.Ir.	100	-	0	71	4	25	21	79
		Rabi. Tra.Ir.	0	-	100	94	6	0	19	81
		Sum. Hyv.Ir.	100	-	0	86	1	13	39	61
12.	Kerala	Aut.	0	93	7	81	14	5	51	49
		Wint.	0	74	26	84	14	3	60	40
		Sum.	0	97	3	91	8	1	67	32

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		S e e d V a r i e t y			F e r t i l i z e d / M a n u r e			P e s t i c i d e s		
		H i g h Y i e l d i n g V a r i e t i e s o f S e e d	I m p r o v e d S e e d	l o c a l S e e d	W h e r e C h e m i c a l F e r t i l i z e r u s e d	W h e r e O t h e r M a n u r e u s e d	U n - m a n u r e d	T r e a t e d w i t h P e s t i c i d e s .	N o t t r e a t e d w i t h P e s t i c i d e s	
1	2	3	4	5	6	7	8	9	10	
13.	Madhya Pradesh	Hyv. Ir.	-	100	-	96	1	3	100	0
		Lv. Ir.	-	-	100	99	0	1	100	0
		UI.	-	-	100	70	5	25	100	0
14.	Maharashtra *	Kh. Ir.	N.A.							
		Kh. UI..	N.A.							
		Kh. Comp.	N.A.							
		Sum.	N.A.							
15.	Meghalaya	Aut.	-	0	100	18	10	71	12	88
		Wint.	-	1	99	24	13	63	10	90
16.	Odisha	Aut.	90	-	10	80	8	12	28	72
		Wint.	95	-	5	90	5	5	48	52
		Sum.	100	-	-	95	4	1	65	35
17.	Punjab		-	100	0	100	0	0	100	0
18.	Rajasthan		-	56	44	60	0	39	69	31
19.	Tamil Nadu	K/K/S	100	0	0	59	35	6	41	59
		S/T/P	100	0	0	54	33	13	91	9
		N/K	100	0	0	53	29	18	83	17
20.	Telangana	Kh. Ir.	-	75	25	98	0	2	73	27
		Kh. UI.	-	86	14	100	0	0	61	39
		Rabi	-	77	23	98	0	2	52	48
21.	Uttarakhand		0	58	42	58	42	0	25	75
22.	Uttar Pradesh		N.A.							
23.	West Bengal	Aus.	-	97	3	97	-	3	82	18
		Aman	-	92	8	94	-	6	59	41
		Sum.	-	98	2	98	-	2	80	20
24.	Dadra & Nagar Haveli		-	-	100	0	100	0	0	100
25.	Daman & Diu		-	81	19	0	100	0	0	100
26.	Puducherry	I	100	-	-	0	35	65	0	100
		II	100	-	-	-	61	39	6	94
		III	100	-	-	-	36	64	20	80

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
2. JOWAR										
1.	Andhra Pradesh	Kh.	-	25	75	58	30	12	35	65
		Rabi	-	59	41	69	21	10	58	42
2.	Chhattisgarh		-	100	0	0	9	91	0	100
3.	Gujarat	Kh.				N.A.				
		Rabi								
4.	Karnataka ***	Kh.Hyv.Ir.	100	-	0	92	4	4	9	91
		Kh.Hyv.UI.	0	-	100	96	3	2	0	100
		Kh.Tra.Ir.	-	-	100	61	28	12	-	100
		Kh.Tra.UI.	-	-	100	91	7	2	1	99
		Rabi Hyv.Ir.	100	-	-	82	3	15	12	88
		Rabi Hyv.UI.	100	-	0	89	4	7	4	96
		Rabi Tra.Ir.	0	-	100	95	3	3	7	93
		Rabi Tra.UI.	-	-	100	84	4	12	2	98
		Sum.Hyv.Ir.	100	-	0	100	0	0	13	87
5.	Madhya Pradesh		-	49	51	53	3	44	0	100
6.	Maharashtra *	Kh.			N.A.					
		Rabi Ir.			N.A.					
		Rabi UI.			N.A.					
7.	Rajasthan		-	54	47	55	2	43	9	91
8.	Tamil Nadu	Kh.	77	0	23	75	14	11	43	57
		Rabi	73	0	27	95	3	2	30	70
9.	Telangana	Kh.	-	27	73	95	1	4	27	73
		Rabi	-	22	78	78	5	17	24	76
10.	Uttar Pradesh				N.A.					
3. BAJRA										
1.	Andhra Pradesh		-	18	82	26	57	17	14	86
2.	Gujarat	Kh.			N.A.					
		Sum.								
3.	Haryana		-	73	28	100	0	0	65	35

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
4.	Karnataka ***	Kh.Hyv.Ir.	100	-	0	61	35	5	0	100
		Kh.Hyv.UI.	100	-	-	86	2	12	2	98
		Kh.Tra.UI.	0	-	100	70	3	27	0	100
5.	Madhya Pradesh		-	9	91	93	1	6	0	100
6.	Maharashtra *	Kh. Ir.				N.A.				
		Kh. UI..				N.A.				
		Kh. Comp.				N.A.				
	Rajasthan		-	54	46	38	5	58	5	95
8.	Tamil Nadu	Kh.	74	0	26	25	53	22	95	5
		Rabi	75	0	25	76	18	6	64	36
9.	Telangana		-	66	34	82	6	12	19	81
10.	Uttar Pradesh					N.A.				
11.	Daman & Diu		-	100	0	0	100	0	0	100
4. MAIZE										
1.	Andhra Pradesh	Kh.	-	47	53	38	57	5	26	74
		Rabi	-	86	14	69	1	30	56	44
2.	Bihar	Bha.	38		62					
		Rabi	86		14					
		Gar.	82		18					
3.	Chhattisgarh		-	21	79	37	36	27	0	100
4.	Gujarat					N.A.				
5.	Haryana		-	91	9	100	0	0	72	28
6.	Himachal Pradesh					N.A.				
7.	Jammu & Kashmir					N.A.				
8.	Jharkhand		10	-	90	50	50	-	-	-
9.	Karnataka ***	Kh. Hyv.Ir.	100	-	0	95	4	1	3	97
		Kh. Hyv.UI.	100	-	-	98	1	1	4	97
		Kh. Tra.Ir.	0	-	100	78	17	5	0	100
		Rabi Hyv.Ir.	100	-	0	86	7	7	1	99

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
		Rabi Hyv.UI.	100	-	-	86	12	2	3	97
		Rabi. Tra.Ir.	-	-	-	-	-	-	-	-
		Sum.Hyv.UI.	100	-	0	94	3	3	4	96
10.	Madhya Pradesh		-	43	57	73	17	10	0	100
11.	Maharashtra *	Kh.				N.A.				
		Rabi				N.A.				
12.	Odisha	Aut.	86	-	14	53	21	26	6	94
		Wint.	55	-	45	71	20	9	14	86
		Sum.	100	-	0	90	5	5	20	80
13.	Punjab		-	85	15	93	0	7	74	26
14.	Rajasthan	Kh.	-	43	57	66	14	20	5	95
15.	Tamil Nadu	Kh.	100	0	0	48	33	19	14	86
		Rabi	100	0	0	55	28	18	14	86
16.	Telangana	Kh.	-	77	23	96	0	4	21	79
		Rabi	-	63	37	96	0	4	54	46
17.	Uttar Pradesh					N.A.				
18.	West Bengal		-	66	34	70	-	30	6	94
5. RAGI										
1.	Andhra Pradesh	Kh.	-	9	91	24	44	32	3	97
		Rabi	-	30	70	40	50	10	18	82
2.	Bihar				100					
3.	Goa		100	0	0	90	10	-	20	80
4.	Gujarat						N.A.			
5.	Jharkhand		-	-	100	30	70	-	-	-
6.	Karnataka ***	Kh. Hyv.Ir.	100	-	0	94	5	1	1	99
		Kh. Hyv.UI.	100	-	-	97	2	1	0	100
		Kh. Tra. Ir.	0	-	100	84	9	7	4	96
		Kh.Tra.UI.	-	-	100	96	0	4	0	100
		Rabi Hyv.Ir.	100	-	0	96	3	2	2	99
		Rabi Hyv.UI.	100	-	0	67	30	3	0	100
		Sum. Hyv.Ir.	100	-	0	74	26	0	0	100

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
7	Maharashtra *	N.A.								
8	Odisha	Aut.	-	-	100	28	30	41	2	98
		Wint.	-	-	100	13	44	43	1	99
		Sum.	-	-	100	53	28	20	0	100
9.	Tamil Nadu	Kh.	92	0	8	45	50	5	9	91
		Rabi	98	0	2	51	47	2	29	71
10.	Telangana	-	18	82	100	0	0	0	0	100
11.	Uttarakhand	0	100	0	100	0	0	0	0	100
12.	Dadra & Nagar Haveli	0	-	100	0	100	0	0	0	100
6. WHEAT										
1.	Assam	-	30	70	54	20	26	0	100	
2.	Bihar	89		11						
3.	Chhattisgarh	Hyv.Ir.	-	86	14	93	0	7	0	100
		Lv.Ir.	-	42	58	91	2	7	0	100
		UI.	-	40	60	73	1	26	0	100
4.	Gujarat	Ir.	N.A.							
		UI.	N.A.							
5.	Haryana	-	90	10	100	0	0	72	28	
6.	Himachal Pradesh	N.A.								
7.	Jammu & Kashmir	N.A.								
8.	Jharkhand	40	-	60	70	30	-	-	-	
9.	Karnataka ***	Hyv.Ir.	100	-	0	90	6	4	3	97
		Hyv.UI.	100	-	0	76	10	14	1	99
		Tra.Ir.	0	-	100	73	22	5	4	96
		Tra.UI.	0	-	100	86	7	7	5	95
10.	Madhya Pradesh	Hyv.Ir.	-	100	0	97	1	2	0	100
		Lv.Ir.	-	-	100	96	1	3	1	99
		Lv.UI.	-	6	94	53	11	31	0	100
11.	Maharashtra *	Ir.	N.A.							
		UI.	N.A.							
12.	Odisha	Sum.	93	-	7	95	0	5	23	77
13.	Punjab	-	100	0	100	0	0	96	4	
14.	Rajasthan	N.A.								
15.	Uttarakhand		0	57	43	35	64	1	23	77
16.	Uttar Pradesh	N.A.								
17.	West Bengal	-	99	1	98	-	2	44	56	

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R							
		Seed Variety			Fertilized/Manure			Pesticides	
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des
1	2	3	4	5	6	7	8	9	10
7. BARLEY									
1.	Bihar			100					
2.	Chhattisgarh	-	100	0	27	46	27	0	100
3.	Haryana	-	89	11	100	0	0	6	94
4.	Himachal Pradesh	N.A.							
5.	Jharkhand	N.A.							
6.	Madhya Pradesh	-	-	100	69	4	27	100	0
7.	Punjab	-	100	0	100	0	0	63	38
8.	Rajasthan	N.A.							
9.	Uttrakhand	0	100	0	100	0	0	0	100
10.	Uttar Pradesh	N.A.							
8. GRAM (BENGALGRAM)									
1.	Andhra Pradesh	-	80	20	71	25	4	91	9
2.	Bihar			100					
3.	Chhattisgarh	-	25	75	68	8	24	0	100
4.	Gujarat	N.A.							
5.	Haryana	-	76	24	100	0	0	75	26
6.	Jharkhand	30	-	70	30	70	-	-	-
7.	Karnataka *** Ir .	100	-	0	82	15	3	23	77
		98	-	2	86	10	4	43	57
8.	Madhya Pradesh Ir .	-	29	61	85	3	12	0	100
		-	13	87	59	7	34	0	100
9.	Maharashtra *	N.A.							
10.	Punjab	-	90	10	62	0	38	80	20
11.	Rajasthan	N.A.							
12.	Telangana	-	34	66	87	2	11	68	32
13.	Uttar Pradesh	N.A.							
14.	West Bengal	-	15	85	61	-	39	43	57
9. REDGRAM (TUR/ARHAR)									
1.	Andhra Pradesh	-	45	55	46	37	17	60	40
2.	Bihar			100					

ANNEX -IX (Contd...)

Sl. No.	S T A T E			P E R C E N T A G E		A R E A		U N D E R	
		Seed Variety		Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des
1	2	3	4	5	6	7	8	9	10
3.	Chhattisgarh	-	9	91	38	10	52	0	100
4.	Gujarat	-				N.A.			
5.	Haryana	-	95	5	100	0	0	0	100
6.	Jharkhand	20	-	80	30	70	-	-	-
7.	Karnataka	0	48	52	2	12	86	23	77
8.	Madhya Pradesh	-	22	78	36	1	63	0	100
9.	Maharashtra *					N.A.			
10.	Tamil Nadu	93	0	7	29	31	40	62	38
11.	Telangana	-	25	75	97	0	3	75	25
12.	Uttar Pradesh					N.A.			
13.	West Bengal (Rabi)	-	4	96	3	-	97	4	96
10. GREENGGRAM (MOONG)									
1.	Andhra Pradesh	Kh.	-	51	49	37	39	24	54
		Rabi	-	67	33	24	16	60	45
2.	Bihar	Bha.	4		96				
		Gra.	80		20				
3.	Gujarat	Kh.					N.A.		
4.	Karnataka	Kh.	0	44	56	5	6	89	9
		Rabi	0	13	87	1	12	87	23
5.	Maharashtra *						N.A.		
6.	Odisha	Aut.	-	-	100	48	6	46	17
		Wint.	-	-	100	16	8	76	18
		Sum.	-	-	100	32	6	62	33
7.	Rajasthan		-	56	44	32	5	63	41
8.	Tamil Nadu	Kh.	68	0	38	52	36	12	48
		Rabi	93	0	7	62	6	32	53
9.	Telangana	Kh.	-	40	60	83	3	14	57
		Rabi	-	58	42	58	2	40	58
10.	Uttar Pradesh	Kh.					N.A.		
		Zaid					N.A.		
11.	West Bengal	Rabi	-	28	72	72	-	28	74

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
11. BLACKGRAM (URD/MATHIKALAI)										
1.	Andhra Pradesh	Kh.	-	50	50	56	26	18	63	37
		Rabi.	-	78	22	46	9	45	61	39
2.	Assam		-	0	100	0	14	86	0	100
3.	Gujarat						N.A.			
4.	Karnataka	Kh.	0	48	52	9	5	86	7	93
		Rabi	0	18	82	32	4	64	4	96
5.	Maharashtra *						N.A.			
6.	Odisha	Aut.	-	-	100	43	11	46	15	85
		Wint.	-	-	100	12	12	77	10	90
		Sum.	-	-	100	38	9	53	42	58
7.	Rajasthan		-	57	43	39	1	60	59	41
8.	Tamil Nadu	Kh.	100	0	0	78	14	8	61	39
		Rabi	93	0	7	62	6	32	53	47
9.	Telangana	Kh.	-	16	84	99	1	0	71	29
		Rabi	-	78	22	67	5	28	51	49
10.	Uttar Pradesh	Kh.					N.A.			
		Zaid					N.A.			
11.	West Bengal		-	23	77	31	-	69	35	65
12. LAKH										
1.	Bihar				100					
2.	Chhattisgarh		-	1	99	8	1	91	0	100
3.	Madhya Pradesh		-	4	96	38	0	62	0	100
4.	West Bengal		-	2	98	33	-	67	3	97
13. MASUR										
1.	Bihar		-	-	100	-	-	-	-	-
2.	Jharkhand		-	-	100	-	100	-	-	-
3.	Rajasthan						N.A.			
4.	Uttar Pradesh						N.A.			
5.	West Bengal		-	14	86	54	-	46	14	86

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
14. HORSEGRAM (KULTHI)										
1.	Andhra Pradesh	Kh.	-	3	97	6	21	73	4	96
		Rabi	-	28	72	13	24	63	10	90
2.	Karnataka	Kh.	0	13	87	16	13	71	5	95
		Rabi	0	9	91	17	10	73	4	96
3.	Odisha	Wint.	-	-	100	8	12	80	4	96
		Sum.	-	-	100	9	43	48	4	96
4.	Tamil Nadu		65	0	35	27	41	32	30	70
5.	Telangana	Kh.	-	0	0	0	0	0	0	0
		Rabi	-	0	0	0	0	0	0	0
15. PEAS										
1.	Uttar Pradesh									N.A.
2.	West Bengal		-	14	86	51	-	49	17	83
16. MOTH										
1.	Gujarat									N.A.
2.	Rajasthan		-	37	63	12	1	87	26	74
17. CHOWLA										
1.	Rajasthan		-	46	54	6	3	92	4	96
18. GUAR										
1.	Gujarat									N.A.
2.	Rajasthan		-	38	62	18	2	80	32	68
19. SAWAN(JHANGORA)										
1.	Uttrakhand		0	100	0	100	0	0	0	100
2.	Uttar Pradesh	Kh.								N.A.
		Zaid								N.A.
20. KORRA										
1.	Andhra Pradesh		-	35	65	82	7	11	19	81
2	Telangana		-	40	60	20	80	0	0	100

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E			A R E A		U N D E R			
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
21. KODON-KUTKI (KODRA)										
1.	Chhattisgarh	-	1	99	4	8	88	0	100	
2.	Madhya Pradesh	-	0	100	4	4	92	0	100	
3.	Uttar Pradesh Kodon	N.A.								
22. NAVANE										
1.	Karnataka	0	47	53	3	21	75	18	82	
23. SAVE										
1.	Karnataka	0	4	96	4	21	75	10	90	
24. SAMAI										
1.	Tamil Nadu	100	0	0	52	43	5	43	57	
25. VARAGU										
1.	Tamil Nadu	100	0	0	62	36	1	36	64	
26. SUGARCANE										
1.	Andhra Pradesh	Plt.	-	54	46	23	76	1	35	65
		Rt.	-	58	42	44	55	1	32	68
2.	Assam		-	1	99	37	10	53	0	100
3.	Bihar		-	-	100	-	-	-	-	-
4.	Goa		100	-	-	90	10	-	80	20
13.	Tamil Nadu		100	0	0	46	42	12	31	69
14.	Telangana	Plt.	-	12	88	100	0	0	28	72
		Rt.	-	13	87	100	0	0	30	70
15.	Uttar Pradesh		N.A.							
16.	West Bengal		-	55	45	100	-	0	67	33
27. COCOA										
1.	Kerala		N.A.							
28. CHILLIES										
1.	Andhra Pradesh	Kh.	-	54	46	43	53	4	80	20
		Rabi	-	72	28	48	50	2	63	37
2.	Bihar				100					
3.	Chhattisgarh		-	97	3	19	81	0	0	100
4.	Karnataka	Kh.	0	45	55	3	10	87	40	60
		Rabi	100	-	0	26	74	0	26	74
		Sum.	100	-	0	50	51	0	26	74

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		S e e d V a r i e t y			F e r t i l i z e d / M a n u r e			P e s t i c i d e s		
		H i g h Y i e l d i n g V a r i e t i e s o f S e e d	I m p r o v e d S e e d	l o c a l S e e d	W h e r e C h e m i c a l F e r t i l i z e r u s e d	W h e r e O t h e r M a n u r e u s e d	U n - m a n u r e d	T r e a t e d w i t h P e s t i c i d e s .	N o t t r e a t e d w i t h p e s t i c i d e s	
1	2	3	4	5	6	7	8	9	10	
5.	Madhya Pradesh	-	100	0	0	100	0	0	100	
6.	Telangana	Kh.	-	61	39	86	0	14	75	25
		Rabi	-	100	0	72	0	28	65	35
29. CUMIN										
1.	Gujarat									N.A.
2.	Rajasthan									N.A.
30. FENNEL										
1.	Gujarat									N.A.
31. ARECANUT										
1.	Kerala									N.A.
2.	Maharashtra *									N.A.
32. PEPPER										
1.	Kerala									N.A.
33. SAFFRON										
1.	Jammu & Kashmir									N.A.
34. TURMERIC										
1.	Kerala									N.A.
2.	Karnataka		0	70	30	1	3	97	61	39
35. GINGER										
1.	Kerala									N.A.
2.	Meghalaya		-	0	100	4	11	86	0	100
36. GARLIC										
1.	Gujarat									N.A.
37. CORIANDER										
1.	Rajasthan									N.A.
38. LICHI										
1.	Bihar				100					

ANNEX -IX (Contd...)

1	2	3	4	5	6	7	8	9	10	
Sl. No.	S T A T E	P E R C E N T A G E		A R E A		U N D E R				
		Seed Variety		Fertilized/Manure			Pesticides			
		High Yielding Varieties of Seed	Improved local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pesticides.	Not treated with pesticides		
1	2	3	4	5	6	7	8	9	10	
39. BANANA										
1.	Bihar			100						
2.	Gujarat				N.A.					
3	Kerala				N.A.					
4	Madhya Pradesh #				N.A.					
40. MANGO										
1.	Bihar			100						
2.	Kerala				N.A.					
41. GUAVA										
1.	Bihar			100						
42. JACKFRUIT										
1.	Bihar			100						
2.	Kerala				N.A.					
43. CASHEWNUT										
1.	Kerala				N.A.					
2.	Maharashtra *				N.A.					
44. TAPIOCA										
1.	Kerala	-	32	68	33	66	1	0	100	
45. PINE APPLE										
1.	Kerala				N.A.					
46. POTATO										
1.	Assam	Rabi.	-	9	91	53	29	18	15	
2.	Bihar	Agh.			100					
		Rabi.			100					
3.	Chhattisgarh		-	55	45	56	44	0	0	
4.	Gujarat					N.A.				
5.	Jammu & Kashmi	Kh.				N.A.				
		Rabi.				N.A.				
6.	Jharkhand	Agh.	40	-	60	70	30	-	-	
		Rabi.	40	-	60	50	50	-	-	

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
7.	Karnataka	Kh.	0	74	26	3	11	86	64	36
		Rabi.	0	95	5	2	5	93	85	15
		Summer	100	-	-	100	-	-	40	60
8.	Madhya Pradesh		-	91	9	94	0	6	0	100
9.	Meghalaya	Sum.	-	7	93	60	40	0	18	82
10.	Odisha	Wint.	-	-	100	96	2	3	29	71
11.	Uttar Pradesh					N.A.				
47. ONION										
1.	Bihar				100					
2.	Chhattisgarh		-	0	100	81	6	13	0	100
3.	Gujarat					N.A.				
4.	Jharkhand		25	-	75	50	50	-	-	-
5.	Karnataka ***	Kh.	100	-	0	40	11	49	18	82
		Rabi	100	-	0	15	85	0	18	82
		Sum.	100	-	0	24	76	0	7	93
6.	Madhya Pradesh #		-	44	56	92	6	2	-	100
7.	Uttar Pradesh	Zaid				N.A.				
48. BRINJAL										
1.	Bihar	Agh.			100					
		Rabi.			100					
2.	Jharkhand	Agh.	25	-	75	50	50	-	-	-
		Rabi.	30	-	70	30	70	-	-	-
3.	Karnataka		0	82	18	1	4	95	19	81
49. TOMATO										
1.	Bihar	Agh.			100					
		Rabi			100					
2.	Jharkhand	Agh.	40	-	60	70	30	-	-	-
		Rabi	40	-	60	20	80	-	-	-
3.	Karnataka	Kharif	0	86	14	2	7	91	76	24
		Rabi	0	72	28	1	14	86	65	35
		Summer	0	68	32	0	3	97	76	24
50. CAULIFLOWER										
1.	Bihar				100					

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R									
		Seed Variety			Fertilized/Manure			Pesticides			
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des		
1	2	3	4	5	6	7	8	9	10		
51. PAPAYA (PAPITA)											
1.	Madhya Pradesh #	N.A.									
52. PLANTAIN											
1.	Kerala	N.A.									
53. METHI											
1.	Rajasthan	N.A.									
54. GROUNDNUT											
1.	Andhra Pradesh	Kh.	-	58	42	27	61	12	39	61	
		Rabi	-	86	14	49	50	1	69	31	
2.	Chhattisgarh		-	10	90	38	10	52	0	100	
3.	Goa	Kh.	100	0	-	80	20	-	18	82	
		Rabi	100	-	-	85	15	-	20	80	
4.	Gujarat	Kh.	N.A.								
		Sum.									
5.	Karnataka ***	Kh.Ir.	100	-	0	82	16	2	29	71	
		Kh.UI.	77	-	23	94	3	3	13	87	
		Rabi.UI.	100	-	0	74	7	20	41	59	
		Sum.Ir.	100	-	0	97	12	1	40	60	
		Sum.UI.	0	-	100	63	38	-	50	50	
6.	Madhya Pradesh		-	39	61	64	5	31	3	97	
7.	Maharashtra *	Kh.	N.A.								
		Sum.									
8.	Odisha	Aut.	-	-	100	69	7	24	16	84	
		Wint.	-	-	100	48	13	38	7	93	
		Sum.	-	-	100	89	2	9	41	59	
9.	Rajasthan		-	51	49	88	3	9	75	25	
10.	Tamil Nadu	Kh.	97	0	3	39	51	10	34	66	
		Rabi	97	0	3	57	41	2	75	25	
11.	Telangana	Kh.	-	76	24	97	1	2	0	100	
		Rabi	-	27	73	93	1	6	75	25	
12.	Uttar Pradesh		N.A.								
13.	West Bengal		-	90	10	57	-	43	43	57	

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
55. SESAMUM (GINGELLY)										
1.	Andhra Pradesh	Kh.	-	39	61	27	29	44	20	80
		Rabi	-	52	48	33	32	35	30	70
2.	Chhattisgarh		-	2	98	18	6	76	0	100
3.	Gujarat					N.A.				
4.	Karnataka		0	17	83	14	6	80	3	97
5.	Kerala					N.A.				
6.	Madhya Pradesh		-	82	18	22	27	51	0	100
7.	Maharashtra *	Kh.				N.A.				
		Rabi				N.A.				
8.	Odisha	Aut.	-	-	100	31	15	54	6	94
		Wint.	-	-	100	25	20	55	5	95
		Sum.	-	-	100	49	8	43	27	73
9.	Rajasthan		-	38	62	22	2	76	8	92
10.	Tamil Nadu	Kh.	92	0	8	12	39	49	79	21
		Rabi	0	0	100	38	42	20	20	80
11.	Telangana	Kh.	-	4	96	81	3	16	19	81
		Rabi	-	42	58	89	0	11	35	65
12.	Uttar Pradesh					N.A.				
13.	West Bengal		-	42	59	51	-	49	22	78
56. CASTOR										
1.	Andhra Pradesh		-	45	55	45	33	22	84	16
2.	Gujarat						N.A.			
3.	Karnataka ***		37	-	63	70	5	25	19	81
4.	Telangana		-	69	31	99	0	1	85	15
57. RAPE & MUSTARD										
1.	Assam		-	1	99	37	38	25	7	93
2.	Bihar		15		85					
3.	Chhattisgarh		-	8	92	18	24	58	0	100
4.	Gujarat					N.A.				
5.	Haryana		-	72	28	100	0	0	76	24

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
6.	Jammu & Kashmir	N.A.								
7.	Jharkhand	-	-	100	20	80	-	-	-	
8.	Madhya Pradesh	-	64	36	83	6	11	0	100	
9.	Odisha Wint.	-	-	100	44	12	44	29	71	
10.	Punjab	-	83	18	94	0	6	55	45	
11.	Rajasthan	N.A.								
12.	Uttar Pradesh	N.A.								
13.	West Bengal	-	75	25	96	-	4	55	45	
58. LINSEED										
1.	Chhattisgarh	-	1	99	5	3	92	0	100	
2.	Jammu & Kashmir	N.A.								
3.	Karnataka ***	0	22	78	0	0	100	0	100	
4.	Madhya Pradesh	-	12	88	15	6	79	0	100	
5.	Maharashtra *	N.A.								
6.	Rajasthan	N.A.								
7.	Uttar Pradesh	N.A.								
8.	West Bengal	-	1	99	23	-	77	-	100	
59. SAFFLOWER										
1.	Karnataka	0	27	73	0	4	96	3	97	
2.	Maharashtra *	N.A.								
60. SUNFLOWER										
1.	Andhra Pradesh	Kh.	-	38	62	45	50	5	46	54
		Rabi	-	54	46	43	53	4	80	20
2.	Haryana	Rabi	-	100	0	100	0	0	0	100
3.	Karnataka ***	Kh.Ir.	100	-	0	98	1	1	26	74
		Kh.UI.	100	-	0	94	3	3	15	85
		Rabi.Ir.	99	-	1	99	0	1	25	75
		Rabi.UI.	100	-	0	98	1	1	18	82
		Sum.	100	-	0	99	1	1	42	59

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
4.	Maharashtra * Rabi Sum.	Kh.				N.A.				
		Rabi				N.A.				
		Sum.				N.A.				
5.	Tamilnadu Rabi	Kh.	100	0	0	23	67	10	92	8
		Rabi	92	0	8	82	16	3	54	46
6.	Telangana Rabi	Kh.	-	0	0	0	0	0	0	0
		Rabi	-	7	93	100	0	0	7	93
7.	Uttar Pradesh	Zaid				N.A.				
61. SOYABEAN										
1.	Andhra Pradesh		36	64	54	28	18	79	21	
2.	Chhattisgarh		-	39	61	76	13	11	0	100
3.	Karnataka		0	58	42	0	1	98	5	95
4.	Madhya Pradesh		-	4	96	95	1	4	0	100
5.	Maharashtra *					N.A.				
6.	Rajasthan		-	71	29	47	2	51	64	36
7.	Telangana		-	78	22	96	1	3	56	44
8.	Uttar Pradesh					N.A.				
62. TARA MEERA										
1.	Rajasthan					N.A.				
63. COCONUT										
1.	Kerala					N.A.				
2.	Maharashtra *					N.A.				
64. NIGER										
1.	Maharashtra *					N.A.				
65. COTTON										
1.	Andhra Pradesh		-	59	41	44	54	2	61	39
2.	Gujarat UI.	Ir.	-	-	-	-	-	-	-	-
		UI.	-	-	-	-	-	-	-	-
3.	Haryana		-	66	34	100	0	0	59	41
4.	Karnataka *** kh. Ir. UI. Rabi Ir. Rabi UI. Sum.	kh. Ir.	99	-	1	99	1	-	69	31
		UI.	99	-	1	98	1	1	55	45
		Rabi Ir.	100	-	0	100	-	-	30	70
		Rabi UI.	70	-	30	99	-	1	7	93
		Sum.	100	-	-	100	-	-	0	100

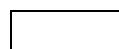
ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		S e e d V a r i e t y			F e r t i l i z e d / M a n u r e			P e s t i c i d e s		
		H i g h Y i e l d i n g V a r i e t i e s o f S e e d	I m p r o v e d S e e d	l o c a l S e e d	W h e r e C h e m i c a l F e r t i l i z e r u s e d	W h e r e O t h e r M a n u r e u s e d	U n - m a n u r e d	T r e a t e d w i t h P e s t i c i d e s .	N o t t r e a t e d w i t h p e s t i c i d e s	
1	2	3	4	5	6	7	8	9	10	
5.	Madhya Pradesh	-	96	4	84	6	10	88	12	
6.	Maharashtra * I r . U I . C o m p .				N.A.					
7.	Punjab	-	99	1	100	0	0	99	1	
8.	Rajasthan	-	95	5	95	1	4	93	7	
9.	Tamil Nadu K h . Rabi	0	0	0	57	37	6	92	8	
10	Telangana	-	59	41	98	0	2	74	26	
11	Uttar Pradesh				N.A.					
66. JUTE										
1.	Assam	-	29	71	35	53	12	0	100	
2.	Bihar			100						
3.	Meghalaya	-	0	100	8	23	69	0	100	
4.	Odisha	-	-	100	73	8	20	35	65	
5.	West Bengal	-	92	8	94	-	6	51	49	
67. MESTA										
1.	Andhra Pradesh	-	58	42	43	6	51	0	100	
2.	Bihar			100						
3.	West Bengal	-	75	25	90	-	10	22	78	
68. TOBACCO										
1.	Andhra Pradesh (N) (V)	-	77	23	86	0	14	63	37	
2.	Gujarat				N.A.					
3.	Karnataka	0	80	20	1	13	85	48	52	
4.	Maharashtra *				N.A.					
5.	Telangana (N) (V)	-	100	0	100	0	0	40	60	
6.	Uttar Pradesh Rabi Zaid				N.A.					
69. ISABGOL										
1.	Gujarat				N.A.					
2.	Rajasthan	-	31	69	92	1	8	22	78	

ANNEX -IX (Contd...)

Sl. No.	S T A T E	P E R C E N T A G E A R E A U N D E R								
		Seed Variety			Fertilized/Manure			Pesticides		
		High Yielding Varieties of Seed	Improved Seed	local Seed	Where Chemical Fertilizer used	Where Other Manure used	Un - manured	Treated with Pestici- des.	Not treated with pestici- des	
1	2	3	4	5	6	7	8	9	10	
70. AVARE (SEM)										
1.	Karnataka	Kharif	0	27	73	11	14	75	40	60
		Rabi	0	100	0	0	100	80	20	0
71. COWPEA (LOBIA)										
1.	Karnataka	Kharif	0	48	52	26	8	66	16	84
		Rabi	99	-	1	64	0	36	42	58
		Summer	0	54	46	2	13	85	35	65
2.	Goa	Kh.	0	10	90	70	30	0	25	75
		Rabi	0	10	90	70	30	0	15	85
72. TAMARIND										
1.	Kerala						N.A.			
73. NUTMEG										
1.	Kerala						N.A.			
74. BETAL LEAVES										
1.	Kerala						N.A.			
75. CABBAGE										
1.	Karnataka	0	90	10	1	9	90	47	53	
76. BEANS										
1.	Karnataka	0	95	5	3	8	89	84	16	

Note :-



1. * : Figures repeated from the year 2010-11 in the state of Maharashtra.
- 2 *** : Figures repeated from the year 2011-12 in respect of Crop Cowpea and all other crops repeated from the year 2014-15..
3. # : Figure repeated from the year 2013-14 in respect for corp Banana, Onion and Papaya for Madhya Pradesh.

ANNEX : X(a) :- RESULTS OF FIELD DRIAGE EXPERIMENTS UNDER CES 2017-18

CROP	S T A T E	No. Of Experiments		Percentage recovery
		Planned	Analysed	
1	2	3	4	5
PADDY	Andhra Pradesh	Kh.Ir.	3576	761
		Kh.UI.	228	57
		Rabi Ir.	2994	724
	Bihar	Bha.Ir.	280	121
		Bha.UI.	196	97
		Agh.Hyv.Ir.	13968	13565
		Agh.Hyv.UI.	3528	3466
		Agh.Lv.Ir.	6207	6055
		Agh.Lv.UI.	1056	1056
		Gar.Hyv.	150	79
		Gar.Lv.	70	45
		Hyv.Ir.	620	496
	Chhattisgarh	Lv.Ir.	442	358
		UI.	964	742
		Kh.	76	76
	Goa	Rabi	76	72
		Ir.		
		UI.		N.A.
		Sum.		
	Haryana %		990	864
	Himachal Pradesh		1898	1200
	Jammu & Kashmir		512	238
	Jharkhand	Agh.Hyv.Ir.		
		Agh.Hyv.UI.		
		Agh.Lv.Ir.		
		Agh.Lv.UI.		
		Bha.		N.A.
	Kerala	Aut.	554	554
		Wint.	620	620
		Sum.	460	460
	Madhya Pradesh	Hyv.Ir.	598	518
		Lv.Ir.	376	290
		UI.	1108	1043
	Maharashtra **	Kh.	1106	712
		Sum.		N.C
	Meghalaya	Aut.	58	52
		Wint.	150	150
	Punjab		276	218
	Rajasthan		3580	2616
	Tamil Nadu	K/K/S	214	214
		S/T/P	630	630
		N/K	150	150
	Telangana	Ir.	1790	504
		UI.	104	41
		Rabi	2096	477
	Uttarakhand			85.39
				84.97
				85.43
				90.89
				90.25
				91.04
				96.20
				92.26
				92.50
				93.12
				92.49
				95.10
				90.49
				89.47
				89.12
	Dadra & Nagar Haveli		78	78
	Daman & Diu ##		20	20
	Puducherry	I	98	98
		II	140	140
		III	70	70
				92.72
				91.98
				92.93

ANNEX - X(a) (Contd....)

CROP	S T A T E	No. Of Experiments		Percentage recovery
		Planned	Analysed	
1	2	3	4	5
JOWAR	Andhra Pradesh	Kh.	178	48
		Rabi.	482	112
	Chhattisgarh		70	42
	Gujarat	Kh.	-	-
		Rabi	-	-
	Madhya Pradesh		600	584
	Maharashtra **	Kh.	2128	1543
		Rabi	2228	1472
	Rajasthan		11032	11030
	Tamil Nadu	Ir.	220	220
		UI.	320	317
	Telangana	Kh.	372	95
		Rabi	390	86
	Uttar Pradesh		N.A.	56.38
BAJRA	Andhra Pradesh		488	171
	Gujarat	Kh.	-	-
		Sum.	-	-
	Haryana %		1532	1438
	Madhya Pradesh		252	228
	Maharashtra **		856	511
	Rajasthan		25948	25317
	Tamil Nadu	Ir.	120	120
		UI.	102	102
	Telangana		52	15
	Uttar Pradesh #		N.A.	N.A.
	Daman & Diu ##		8	8
MAIZE	Andhra Pradesh	Kh.	234	72
		Rabi	554	164
	Bihar	Bha.Hyv.	280	222
		Bha.Lv.	350	275
		Rabi	380	179
		Gar.Hyv.	190	130
		Gar.Lv.	60	36
	Chhattisgarh		468	354
	Gujarat	Kh.	-	-
	Haryana %		144	88
	Himachal Pradesh		2570	2268
	Jammu & Kashmir		588	274
	Jharkhand	Bha.		N.A.
	Madhya Pradesh		1418	1293
	Maharashtra ***	Kh.	112	90
		Rabi	84	58
	Punjab		88	80
	Rajasthan	Kh.	12032	11520
	Tamil Nadu	Ir.	128	128
		UI.	88	88
	Telangana	Kh.	1388	382
		Rabi	1834	451

ANNEX - X(a) (Contd....)

CROP	STATE	No. Of Experiments		Percentage
		Planned	Analysed	recovery
1	2	3	4	5
	Uttar Pradesh	N.A.	N.A.	58.39
	West Bengal	225	225	44.39
RAGI	Andhra Pradesh \$	Kh.	200	55
		Rabi	170	44
	Bihar	Bha.	112	59
	Goa			N.A.
	Gujarat		-	-
	Jharkhand			N.A.
	Maharashtra **		492	332
	Tamil Nadu	Ir.	80	80
		UI.	100	100
	Telangana		3	10
	Uttarakhand		553	369
	Dadra & Nagar Haveli		22	22
WHEAT	Bihar	Hyv.Ir.	18642	18241
		Hyv.UI.	21	21
		Lv.Ir.	5763	5763
		Lv.UI.	333	333
	Chhattisgarh	Hyv.Ir.	468	332
		Lv.Ir.	198	144
		UI.	226	166
	Gujarat	Ir.	-	-
		UI.	-	-
	Haryana %		2200	2182
	Himachal Pradesh		2666	2236
	Jammu & Kashmir		416	146
	Jharkhand	Hyv.Ir.		
		Hyv.UI.		N.A.
		Lv.Ir.		
		Lv.UI.		
	Madhya Pradesh	Hyv.Ir.	2498	2204
		Lv.Ir.	974	974
		UI.	1060	966
	Maharashtra **		464	256
	Punjab		278	248
	Rajasthan		39636	37348
	Uttarakhand		671	665
	Uttar Pradesh		N.A.	N.A.
	West Bengal		766	766
BARLEY	Bihar		150	90
	Chhattisgarh		16	8
	Haryana %		516	355
	Himachal Pradesh		1160	750
	Jharkhand			N.A.
	Madhya Pradesh		430	396
	Punjab		114	78
	Rajasthan		5832	5748
	Uttarakhand		337	256
	Uttar Pradesh		N.A.	N.A.

ANNEX - X(a) (Contd....)

CROP	S T A T E	No. Of Experiments		Percentage
		Planned	Analysed	recovery
1	2	3	4	5
GRAM	Bihar	400	357	89.00
	Chhattisgarh	452	360	93.10
	Gujarat	-	-	-
	Haryana %	562	512	88.70
	Jharkhand			N.A.
	Madhya Pradesh	UI	2608	1360
		Ir	1078	888
	Maharashtra **		2200	1550
	Punjab		36	26
	Rajasthan		14684	12216
	Uttar Pradesh		N.A.	N.A.
	West Bengal		252	252
REDGRAM (TUR)	Bihar	308	231	75.00
	Jharkhand			N.A.
	Maharashtra *		3602	3006
	Uttar Pradesh		N.A.	N.A.
	West Bengal	(Rabi)	83	83
GREENGRAM (MOONG)	Bihar	Bha.	120	48
		Gar.	252	203
	Rajasthan		14164	13293
	Uttar Pradesh	Kh.	N.A.	N.A.
		Zaid	N.A.	N.A.
	West Bengal	Sum.		N.A.
	Rajasthan		3576	3544
	Uttar Pradesh	Kh.	24	24
		Zaid.	N.A.	N.A.
	West Bengal		326	326
LAKH (KHESARI)	Bihar		210	173
	Chhattisgarh		440	332
	West Bengal		170	170
MASUR	Bihar		490	379
	Jharkhand			N.A.
	Rajasthan		5256	5208
	Uttar Pradesh		N.A.	N.A.
	West Bengal		658	658
PEAS	Uttar Pradesh		N.A.	N.A.
	West Bengal		133	133
MOTH	Rajasthan		6812	5624
CHOWLA	Rajasthan		1748	1708
GUAR	Rajasthan		21688	20844
SAWAN	Uttarakhand		311	242
	Uttar Pradesh	Kh.	N.A.	N.A.
		Zaid	N.A.	N.A.
SAMAI	Tamil Nadu		50	50
VARAGU	Tamil Nadu		62	62
SUGARCANE	Bihar		238	209
	Punjab		N.A.	N.A.
KORRA	Andhra Pradesh		204	57
	Telangana		10	2
KODON-KUTKI	Chhattisgarh		288	232
	Madhya Pradesh		180	176
	Uttar Pradesh (Kodan)		N.A.	N.A.
CHILLIES	Andhra Pradesh	Kh.	400	110
		Rabi	402	154

ANNEX - X(a) (Contd....)

CROP	STATE	No. Of Experiments		Percentage
		Planned	Analysed	recovery
1	2	3	4	5
SAFFRON	Bihar	170	109.00	64.00
	Telangana	Kh.	458	134.00
		Rabi	198	43.00
CORIANDER	Jammu & Kashmir		114	84
	Rajasthan		3176	2571
ARECANUT	Maharashtra ****		180	21
CASHEWNUT	Maharashtra			N.C
CUMIN SEED	Rajasthan		4888	4144
METHI	Rajasthan		1768	1632
GROUNDNUT	Andhra Pradesh	Kh.	2608	646
		Rabi	842	258
	Chhattisgarh		246	152
	Gujarat	Kh.	-	-
		Sum.	-	-
	Goa	Kh.	32	8
		Rabi	32	24
	Madhya Pradesh		480	384
	Maharashtra **		1386	948
	Rajasthan		6444	4961
	Tamil Nadu	Ir.	230	230
		UI.	350	350
	Telangana	Kh.	188	
		Rabi	1154	263
SESAMUM	Uttar Pradesh		N.A.	N.A.
	West Bengal		199	199
	Maharashtra *	Kh.	674	512
		Rabi	202	93
	Rajasthan		6444	5892
CASTOR	Uttar Pradesh		N.A.	N.A.
	West Bengal		1020	1020
RAPE & MUSTARD	Andhra Pradesh		232	76
	Telangana		150	45
	Bihar		532	503
	Haryana %		1040	990
	Jammu & Kashmir		142	82
	Jharkhand			N.A.
	Punjab		244	198
	Rajasthan		30268	27467
LINSEED	Uttar Pradesh		N.A.	N.A.
	West Bengal		1513	1513
	Jammu & Kashmir		8	2
	Maharashtra *		882	675
	Rajasthan			N.A.
SUNFLOWER	Uttar Pradesh		N.A.	N.A.
	West Bengal		73	73
	Andhra Pradesh	Kh.	196	46
		Rabi	368	83
	Haryana %	Rabi	260	92
	Maharashtra*	Kh.	680	524
		Rabi	578	463
		Sum.		N.A.
	Telangana	Kh.	0	0
Uttar Pradesh		Rabi	134	23
	Zaid		N.A.	N.A.
				92.21

ANNEX - X(a) (Contd....)

CROP	S T A T E	No. Of Experiments		Percentage recovery
		Planned	Analysed	
1	2	3	4	5
SAFFLOWER	Karnataka ***	Rabi UI.	98	52
	Maharashtra *		2538	1562
	Rajasthan			N.A.
	Uttar Pradesh		N.A.	N.A.
BANANA	Bihar		250	24
MANGO	Bihar		300	95
GUAVA	Bihar		140	59
LICHI	Bihar		150	43
POTATO	Bihar	Agh.	170	86
		Rabi	210	198
ONION	Bihar	Rabi	210	139
BRINJAL	Bihar	Agh.	170	87
		Rabi	170	91
TOMATO	Bihar	Agh.	70	32
		Rabi	140	98
CAULIFLOWER	Bihar		170	91
JACKFRUIT	Bihar		210	50
TARA MEERA	Rajasthan		1400	573
COTTON	Madhya Pradesh			N.A.
	Maharashtra *		3364	2834
	Punjab		60	58
	Rajasthan		6672	6008
	Uttar Pradesh		N.A.	N.A.
JUTE	Bihar		100	53
	Meghalaya		26	25
	West Bengal		640	640
MESTA	Andhra Pradesh		200	200
	Bihar		100	43
	West Bengal		240	200
TOBACCO	Maharashtra *		72	52
	Uttar Pradesh	Rabi	N.A.	N.A.
		Zaid	N.A.	N.A.
ISABGOL	Rajasthan		4292	3659
AVARE	Karnataka	UI.	88	84
				37.21

Note: -

- 1 * :- Figures have been given from the year 1994-95 as no results of drierage experiments was received ever since the year 1995-96 to 2009-10 by SASA Maharashtra.
- 2. *** :- Figures given are for 1998-99 as no information was received ever since the year 1999-2000 to 2009-10.
- 3. **** :- Figures given are for 2001-02 as no information was received ever since the year 2002-03 to 2009-10.
- 4. ## :- Figure repeated for previous year.
- 5. % :- Percentage recovery repeated from the year 2013-14 for Haryana.
- 6. ### :- Figures repeated from the year 2014-15.
- 7. \$:- Figure repeated from the year 2016-17.

**ANNEX-X(b):RESULTS OF CENTRAL DRIAGE EXPERIMENTS ORGANISED BY STATE
UNDER C.E.S. DURING 2017-18**

Sl. No.	S T A T E	C R O P	No. Of Experiments		Percentage Recovery	Percentage recovery as per field driage	
			Planned	Analysed			
1	2	3	4	5	6	7	
1.	Assam	Paddy	Aut.	300	166	89	No Field driage
			Wint.	450	336	89	No Field driage
			Sum.	246	136	88	No Field driage
		Wheat		-	-		No Field driage
		Blackgram		-	-		No Field driage
		Rape & Mustard		-	-		No Field driage
		Jute	302	254	6		No Field driage
		Sugarcane		-	-	9.82	
2.	Karnataka	Paddy	Kh.Hyv.Ir.	654	482	79.05	No Field driage
			Kh.Hyv.UI.	568	546	83.99	No Field driage
			Kh.Tra.Ir.	16	16	82.06	No Field driage
			Kh.Tra.UI.	18	14	78.93	No Field driage
			Rabi Hyv. Ir.	110	94	84.69	No Field driage
			Rabi Tra. Ir.	-	-	-	No Field driage
			Sum.Hyv.Ir.	328	256	76.27	No Field driage
			Sum.Tra.Ir.	-	-	-	No Field driage
		Jowar	Kh.Hyv.Ir.	66	66	43.31	No Field driage
			Kh.Hyv.UI.	168	148	43.92	No Field driage
			Kh.Tra.UI.	-	-	-	No Field driage
			Rabi Hyv.Ir.	224	150	52.75	No Field driage
			Rabi Hyv.UI.	780	438	47.60	No Field driage
			Rabi Tra.Ir.	-	-	-	No Field driage
			Rabi Tra.UI.	-	-	-	No Field driage
			Sum. Hyv. Ir.	4	4	42.25	No Field driage
		Bajra	Kh.Hyv.Ir.	78	64	38.30	No Field driage
			Kh.Hyv.UI.	310	196	42.92	No Field driage
			Kh. Tra. Ir.	-	-	-	No Field driage
			Kh.Tra.UI.	-	-	-	No Field driage

ANNEX X (b) (Contd..)

Sl. No.	S T A T E	C R O P	No. Of Experiments		Percen- tage recovery	Percentage recovery as per field driage	
			Planned	Analysed			
1	2	3	4	5	6	7	
		Maize	Kh.Hyv.Ir.	426	384	51.91	No Field driage
			Kh.Hyv.UI.	720	680	54.90	No Field driage
			Kh.Tra.Ir.	-	-	-	No Field driage
			Kh.Tra.UI.	-	-	-	No Field driage
			Rabi Hyv. Ir.	212	182	51.75	No Field driage
			Rabi Hyv. UI.	38	36	42.69	No Field driage
			Sum Hyv Ir.	32	30	59.20	No Field driage
			Rabi Tra.Ir.	-	-	-	No Field driage
		Ragi	Kh.Hyv.Ir.	196	174	46.76	No Field driage
			Kh.Hyv.UI.	678	656	48.71	No Field driage
			Kh.Tra.UI.	-	-	-	No Field driage
			Rabi Hyv.Ir.	64	64	44.71	No Field driage
			Rabi Hyv.UI.	90	48	43.27	No Field driage
			Sum.Hyv. Ir.	46	46	44.13	No Field driage
		Wheat	Hyv.Ir.	190	152	76.57	No Field driage
			Hyv.UI.	164	96	80.15	No Field driage
			Tra.Ir.	-	-	-	No Field driage
			Tra.UI.	-	-	-	No Field driage
		Gram	Ir.	238	150	57.66	No Field driage
			UI.	696	384	51.42	No Field driage
		Redgram	Ir.	134	78	46.85	No Field driage
			UI.	848	476	44.32	No Field driage
		Greengram	Kh.	338	242	47.97	No Field driage
			Rabi	12	10	34.90	No Field driage
		Blackgram	Kh.	142	126	41.15	No Field driage
			Rabi	10	10	34.90	No Field driage
		Horsegram	Kh.	268	254	26.83	No Field driage
			Rabi	370	306	29.37	No Field driage
		Navane		64	64	44.18	No Field driage
		Save		40	32	24.95	No Field driage
		Chillies	Ir.	38	38	29.81	No Field driage
			UI.	52	52	35.66	No Field driage
		Groundnut	Kh.Ir.	228	150	46.98	No Field driage
			Kh.UI.	228	150	46.98	No Field driage

ANNEX X (b) (Contd..)

Sl. No.	S T A T E	C R O P	No. Of Experiments		Percen- tage recovery	Percentage recovery as per field driage
			Planned	Analysed		
1	2	3	4	5	6	7
		Rabi UI.	26	26	54.32	No Field driage
		Sum. Ir.	376	194	42.89	No Field driage
		Sum UI.	-	-	-	No Field driage
		Sesamum	188	156	20.73	No Field driage
		Castor	86	82	32.19	No Field driage
		Linseed	20	16	40.91	No Field driage
		Safflower	284	152	36.91	No Field driage
		Sunflower	Kh.Ir.	134	88	37.48
			Kh.UI.	210	158	32.67
			Rabi.Ir.	86	64	46.53
			Rabi.UI.	200	68	40.09
			Sum.Ir.	46	46	42.93
		Soyabean	Ir.	30	30	44.93
			UI.	102	86	47.12
		Tobacco	-	-	-	No Field driage
		Avare	130	126	34.78	No Field driage
		Cowpea	62	50	27.15	No Field driage
	3. Odisha **	Paddy	Aut.	-	-	85.26
			Wint.	-	-	87.34
			Sum.	-	-	87.74
		Maize	Aut.	-	-	34.42
			Wint.	-	-	31.9
			Sum.	-	-	30.98
		Ragi	Aut.	-	-	41
			Wint.	-	-	41.42
			Sum.	-	-	38.6
		Wheat	Sum.	-	-	92.1
		Greengram	Aut.	-	-	93.42
			Wint.	-	-	94.36
			Sum.	-	-	94.46
		Blackgram	Aut.	-	-	93.95
			Wint.	-	-	94.44
			Sum.	-	-	94.44

ANNEX X (b) (Contd..)

Sl. No.	S T A T E	C R O P	No. Of Experiments		Percen- tage recovery	Percentage recovery as per field driage	
			Planned	Analysed			
1	2	3	4	5	6	7	
		Horsegram	Wint.	-	-	94.38	No Field driage
			Sum.	-	-	95.07	No Field driage
		Groundnut	Aut.	-	-	51.53	No Field driage
			Wint.	-	-	54.96	No Field driage
			Sum.	-	-	54.52	No Field driage
		Sesamum	Aut.	-	-	93.73	No Field driage
			Wint.	-	-	93.38	No Field driage
			Sum.	-	-	94.69	No Field driage
		Rape & Mustard	Wint.	-	-	82.59	No Field driage
		Jute	Aut.	-	-	5.73	No Field driage
4.	Rajasthan	Jowar		46	43	53.86	91.63
		Bajra		50	50	56.54	99.39
		Maize	Kh.	40	38	59.10	97.58
		Wheat		58	52	97.58	98.81
		Gram		56	54	94.88	89.37

Note :

- 1:- ** Average driage ratio on the basis of preceeding 10 years is adopted in respect of all the crops.
- 2:- \$ Figures given are for 2007-08 as no information was received of Central Driage ever since the year 2008-09.

APPENDIX -I : STATEWISE CROP COVERAGE AND DETAILS OF DESIGN UNDER CES DURING 2017-18							
Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
1	2	3	4	Dimentions (MxM)	Size (ha.)	6	7
1. ANDHRA PRADESH							
Paddy	Kh. Rabi	1945-46 1945-46	1954-55 1954-55	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	Ir._ UI. Ir.
Jowar	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Bajra		1951-52	1955-56	5 x 5	1/400	MANDAL	
Maize	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Ragi	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Redgram		1958-59	1960-61	10 x10	1/100	MANDAL	
Greengram	Kh. Rabi	1976-77 1976-77	1976-77 1976-77	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Blackgram	Kh. Rabi	1962-63 N. A.	1963-64 N. A.	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Horsegram	Kh. Rabi	1980-81 N. A.	1980-81 N. A.	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Bengalgram	Rabi	2001-02	2001-02	5 x 5	1/400	MANDAL	
Korra		1976-77	1976-77	5 x 5	1/400	MANDAL	
Sugarcane	Plt. - Rt	1954-55	1957-58	5 x 5	1/400	MANDAL	.
Chillies	Kh. Rabi	1976-77 2002-03	1976-77 2002-03	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Groundnut	Kh. Rabi	1957-58 1957-58	1959-60 1959-60	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Sesamum	Kh. Rabi	1957-58 1957-58	1959-60 1959-60	10 x 10 10 x 10	1/100 1/100	MANDAL MANDAL	
Castor		1957-58	1964-65	10 x 10	1/100	MANDAL	
Cotton		1957-58	1965-66	10 x 10	1/100	MANDAL	
Mesta		1976-77	1976-77	5 x 5	1/400	MANDAL	
Tobacco	(N &V)	1957-58	1963-64	5 x 5	1/400	MANDAL	
Sunflower	Kh. Rabi	1992-93 N . A.	1992-93 N. A.	5 x 5 5 x 5	1/400 1/400	MANDAL MANDAL	
Soyabean	Kh.	2003-04	2003-04	5 x 5	1/400	MANDAL	
2. ASSAM @							
Paddy	Aut. Wint. Sum.	1947-48 1947-48 1974-75	1951-52 1951-52 1974-75	5 x 5 5 x 5 5 x 5	1/400 1/400 1/400	R.Circle R.Circle Sub-Division	

Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape		Stratum	Pre-stratification
				Dimensions (MxM)			
1	2	3	4	5	6	7	
Wheat		1973-74	1973-74	5 x 5	1/400	Sub-Division	
Blackgram		1962-63	1962-63	5x5	1/400	Sub-Division	
Sugarcane		1957-58	1957-58	5x5	1/400	Sub-Division	
Potato		1950-51	1952-53	5M x 7 Rows	-	R.Circle	
R&M		1957-58	1958-59	5x5	1/400	R.Circle	
Jute		1951-52	1951-52	5x5	1/400	Sub-Division	
3. Bihar							
Paddy	Bha. Agh.	1945-46 1945-46	1948-49 1948-49	10 x 5 10 x 5	1/200 1/200	ANCHAL ANCHAL	Ir.- UI. {Hyv.(Ir./UI.)} {Lv.(Ir./UI.) }
	Gar.	1969-70	1969-70	10 x 5	1/200	ANCHAL	Hyv./Lv.
Maize	Bha. Rabi Gar.	1959-60 1976-77 1959-60	1959-60 1976-77 1959-60	10 x 5 10 x 5 10 x 5	1/200 1/200 1/200	ANCHAL ANCHAL ANCHAL	Hyv./Lv.
Ragi	Bha.	1976-77	1976-77	10 x 5	1/200	ANCHAL	
Wheat		1945-46	1948-49	10 x 5	1/200	ANCHAL	{Hyv.(Ir./UI.)} {Lv.(Ir./UI.) }
Barley		1945-46	1950-51	10 x 5	1/200	ANCHAL	
Gram		1945-46	1949-50	10 x 5	1/200	ANCHAL	
Tur		1962-63	1962-63	5 x 5	1/400	ANCHAL	
Greengram	Bha. Gar.	1976-77 1977-78	1977-78 1977-78	10 x 5 10 x 5	1/200 1/200	ANCHAL ANCHAL	
Lakh		1966-67	1966-67	10 x 5	1/200	ANCHAL	
Masur		1945-46	1966-67	10 x 5	1/200	ANCHAL	
Sugarcane		1958-59	1958-59	5 x 5	1/400	ANCHAL	Ir.- UI.
Chillies		1970-71	1970-71	5 x 5	1/400	ANCHAL	
Lichi		1963-64	1963-64	2 trees	-	ANCHAL	
Banana		1964-65	1964-65	2 trees	-	ANCHAL	
Mango		1963-64	1963-64	2 trees	-	ANCHAL	
Guava		1976-77	1976-77	2 trees	-	ANCHAL	
Potato	Agh. Rabi	1964-65 1964-65	1964-65 1964-65	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL	
Onion		1970-71	1970-71	5 x 5	1/400	ANCHAL	
Brinjal	Agh. Rabi	1972-73 1972-73	1972-73 1972-73	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL	
Tomato	Agh. Rabi	1972-73 1972-73	1972-73 1972-73	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL	
Cauliflower		1973-74	1973-74	5 x 5	1/400	ANCHAL	

Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape		Stratum	Pre-stratification
					Dimentions (MxM)		
1	2	3	4	5	6	7	
Jackfruit		1965-66	1965-66	2 trees	—	ANCHAL	
Rape & Mustard		1966-67	1966-67	5 x 5	1/400	ANCHAL	
Jute		1958-59	1958-59	5 x 5	1/400	ANCHAL	
Mesta		1959-60	1962-63	5 x 5	1/400	ANCHAL	
4. CHHATTISGARH							
Paddy		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	Ir.(Hyv./Lv.) & UI.
Jowar		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Maize		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	Ir.(Hyv./Lv.) & UI.(Lv)
Wheat		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Barley		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Gram		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Tur		2000-01	2000-01	10 x 5	1/200	R.I. CIRCLE	
Lakh		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Soyabean		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Kodan-Kutki		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Chillies		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Potato		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Onion		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Groundnut		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Sesamum		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Rape & Mustard		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
Linseed		2000-01	2000-01	5 x 5	1/400	R.I. CIRCLE	
5. GOA							
Paddy	Kh. Rabi	1967-68 1967-68	1967-68 1967-68	5 x 5 5 x 5	1/400 1/400	TALUKA TALUKA	
Ragi		1970-71	1970-71	5 x 5	1/400	TALUKA	
6. GUJARAT							
Paddy	Kh. Sum	1945-46 2000-01	1956-57 2000-01	5 x 5 5 x 5	1/400 1/400	TALUKA TALUKA	Ir.-UI.
Jowar	Kh. Rabi	1956-57 1945-46	1956-57 1956-57	5 x 5 5 x 5	1/400 1/400	TALUKA TALUKA	
Bajra	Kh. Sum	1946-47 1974-75	1956-57 1974-75	5 x 5 5 x 5	1/400 1/400	TALUKA TALUKA	

Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape		Stratum	Pre-stratification			
				Dimentions (MxM)	Size (ha.)					
				1	2	3	4	5	6	7
Maize		1951-52	1951-52	5 x 5	1/400	TALUKA				
Ragi		1951-52	1955-56	5 x 5	1/400	TALUKA				
Wheat		1945-46	1956-57	5 x 5	1/400	TALUKA	Ir.- UI.			
Blackgram		2004-05	2004-05	5 x 5	1/400	TALUKA				
Gram		1951-52	1956-57	5 x 5	1/400	TALUKA				
Redgram		1976-77	1984-85	10M X Av. rows in 5M	1/200	TALUKA				
Greengram		1977-78	1984-85	5 x 5	1/400	TALUKA				
Gwar		1994-95	-	5 x 5	1/400	TALUKA				
Moth		2004-05	2004-05	5 x 5	1/400	TALUKA				
Cumin		1964-65	1971-72	5 x 5	1/400	TALUKA				
Fennel		1964-65	1971-72	5 x 5	1/400	TALUKA				
Onion		1968-69	1984-85	5 x 5	1/400	TALUKA				
Potato		1972-73	1984-85	5 x 5	1/400	TALUKA				
Groundnut	Kh. Sum.	1951-52 1977-78	1957-58 1983-84	5 x 5 5 x 5	1/400 1/400	TALUKA				
Rape & Mustard		1984-85	1984-85	5 x 5	1/400	TALUKA				
Sesamum		1961-62	1964-65	5 x 5	1/400	TALUKA				
Castor		1961-62	1964-65	10M X Av. rows in 5 M	1/200	TALUKA				
Cotton		1946-47	1957-58	10M X Av. rows	1/200	TALUKA	Ir.- UI.			
Tobacco		1946-47	1951-52	5 x 5	1/400	TALUKA				
Isabgol		1964-65	1983-84	5 x 5	1/400	TALUKA				
7. HARYANA										
Paddy		1951-52	1957-58	5 x 5	1/400	TEHSIL				
Bajra		1952-53	1952-53	5 x 5	1/400	TEHSIL				
Maize		1952-53	1952-53	5 x 5	1/400	TEHSIL				
Wheat		1943-44	1951-52	5 x 5	1/400	TEHSIL				
Barley		1951-52	1956-57	5 x 5	1/400	TEHSIL				
Gram		1951-52	1951-52	5 x 5	1/400	TEHSIL				
Redgram		2004-05	2004-05	5 x 5	1/400	TEHSIL				

APPENDIX -I : STATEWISE CROP COVERAGE AND DETAILS OF DESIGN UNDER CES DURING 2016-17							
Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape	Stratum	Pre-stratification	
				Dimentions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
Sugarcane	1951-52	1961-62	5 x 5	1/400	TEHSIL		
Rape & Mustard	1951-52	1968-69	5 x 5	1/400	TEHSIL		
Sunflower	2002-03	2002-03	5 x 5	1/400	TEHSIL		
Cotton	1951-52	1996-97	5 x 5	1/400	TEHSIL		
8. HIMACHAL PRADESH							
Paddy	1952-53	1953-54	10 x 2	1/500	KANUNGO CIRCLE		
Maize	1952-53	1959-60	10 x 2	1/500	KANUNGO CIRCLE		
Wheat	1951-52	1953-54	10 x 2	1/500	KANUNGO CIRCLE		
Barley	1960-61	1964-65	10 x 2	1/500	KANUNGO CIRCLE		
9. JAMMU & KASHMIR							
Paddy	Plain & Hill	1958-59	1963-64	10 x 5	1/200	TEHSIL	
Maize	Plain & Hill	1958-59	1963-64	10 x 5	1/200	TEHSIL	
Wheat	Plain & Hill	1958-59	1963-64	10 x 5	1/200	TEHSIL	
Potato	Kh.	2003-04	2003-04	N.A	N.A	TEHSIL	
	Rabi	2003-04	2003-04	N.A	N.A	TEHSIL	
Saffron		1969-70	**	4 x 4	1/625	TEHSIL	
Rape & Mustard		1969-70	**	10 x 5	1/200	TEHSIL	
Linseed		1969-70	**	10 x 5	1/200	TEHSIL	
10. JHARKHAND							
Paddy	Agh.	2001-02	2001-02	10 x 5	1/200	ANCHAL	Hyv. & Lv.
	Bha.	2002-03	2002-03	10 x 5	1/200	ANCHAL	
Maize	Bha.	2002-03	2002-03	10 x 5	1/200	ANCHAL	
Ragi		2002-03	2002-03	10 x 5	1/200	ANCHAL	
Wheat		2001-02	2001-02	10 x 5	1/200	ANCHAL	Hyv. & Lv.
Barley		2001-02	2001-02	10 x 5	1/200	ANCHAL	
Gram		2001-02	2001-02	10 x 5	1/200	ANCHAL	
Tur		2001-02	2001-02	10 x 5	1/200	ANCHAL	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>	Stratum	Pre-stratification
1	2	3	4	Dimentions (MxM)	Size (ha.)	
						6
Masur		2001-02	2001-02	10 x 5	1/200	ANCHAL
Sugarcane	Bha.	2002-03	2002-03	10 x 5	1/200	ANCHAL
Potato	Agh. Rabi	2001-02 2001-02	2001-02 2001-02	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL
Onion	Rabi	2005-06	2005-06	5 x 5	1/400	ANCHAL
Brinjal	Agh. Rabi	2003-04 2001-02	2003-04 2001-02	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL
Tomato	Agh. Rabi	2001-02 2003-04	2001-02 2003-04	5 x 5 5 x 5	1/400 1/400	ANCHAL ANCHAL
Rape & Mustard		2001-02	2001-02	5 x 5	1/400	ANCHAL
11. KARNATAKA						
Paddy	Kh. Rabi Sum.	1945-46 1970-71 1970-71	1945-46 1970-71 1970-71	5 x 5 5 x 5 5 x 5	1/400 1/400 1/400	TALUK TALUK TALUK Hyv (Ir./UI) & Tra. (Ir./UI) {Ir(Hyv./ Tra)}, Hyv.Ir.
Jowar	Kh.	1945-46	1945-46	5 x 5	1/400	TALUK Hyv (Ir./UI) &Tra. UI
Jowar	Rabi	1945-46	1945-46	5 x 5	1/400	TALUK {Hyv (Ir./UI) } & Tra (Ir./UI.)
Bajra	Kh.	1946-47	1946-47	5 x 5	1/400	TALUK {Hyv (Ir./UI.) } & Tra.UI.
Maize	Kh. Rabi Sum.	1970-71 1970-71 1970-71	1970-71 1970-71 1970-71	5 x 5 5 x 5 5 x 5	1/400 1/400 1/400	TALUK TALUK TALUK Hyv.(Ir./UI) & Tra (Ir/UI) Hyv.(Ir./UI) & Tra Ir. Hyv.(Ir.)
Ragi	Kh. Rabi Sum.	1950-51 1984-85 1975-76	1950-51 1984-85 1977-78	5 x 5 5 x 5 5 x 5	1/400 1/400 1/400	TALUK TALUK TALUK Hyv.(Ir./UI) & Tra.UI Hyv.(Ir./UI.) Hyv. Ir.
Wheat	Rabi	1945-46	1945-46	5 x 5	1/400	TALUK Hyv.(Ir./UI) & Tra.(Ir./UI)
Gram	Rabi	1951-52	1951-52	5 x 5	1/400	TALUK Ir.- UI.
Redgram	Kh.	1957-58	1957-58	10 x 5	1/200	TALUK Trad.(Ir./ UI)
Greengram	Kh. Rabi	1971-72 1981-82	1971-72 1981-82	5 x 5 5 x 5	1/400 1/400	TALUK TALUK
Blackgram	Kh. Rabi	1971-72 1981-82	1971-72 1981-82	5 x 5 5 x 5	1/400 1/400	TALUK TALUK

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimenstions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
Horsegram	Kh.	1970-71	1970-71	5 x 5	1/400	TALUK	
	Rabi	1981-82	1981-82	5 x 5	1/400	TALUK	
Soyabean	Kh.	1991-92	1991-92	5 x 5	1/400	TALUK	Ir.- UI.
Navane	Kh.	1970-71	1970-71	5 x 5	1/400	TALUK	
Save	Kh.	1971-72	1971-72	5 x 5	1/400	TALUK	
Sugarcane	Annual	1958-59	1958-59	5 x 5	1/400	TALUK	
Chillies	Kh.	2002-03	2002-03	5 x 5	1/400	TALUK	Ir.- UI.
Potato	Kh.	2000-01	2000-01	5 x 5	1/400	TALUK	Ir.- UI.
	Rabi	2000-01	2000-01	5 x 5	1/400	TALUK	
Onion	Kh.	2000-01	2000-01	5 x 5	1/400	TALUK	Ir.- UI.
	Rabi	2000-01	2000-01	5 x 5	1/400	TALUK	
	Sum.	2007-08	2007-08	5 x 5	1/400	TALUK	
Groundnut	Kh.	1957-58	1957-58	5 x 5	1/400	TALUK	Ir.- UI.
	Sum.	1970-71	1970-71	5 x 5	1/400	TALUK	Ir.- UI.
	Rabi	2005-06	2005-06	5 x 5	1/400	TALUK	UI.
Sesamum	Kh.	1957-58	1957-58	5 x 5	1/400	TALUK	
Castor	Kh.	1957-58	1957-58	10 x 5	1/200	TALUK	
Linseed	Rabi	1957-58	1957-58	5 x 5	1/400	TALUK	
Safflower	Rabi	1977-78	1977-78	5 x 5	1/400	TALUK	
Sunflower	Kh.	1978-79	1978-79	10 x 5	1/200	TALUK	Ir.- UI.
	Rabi	1988-89	1988-89	10 x 5	1/200	TALUK	Ir.- UI.
	Sum.	1988-89	1988-89	10 x 5	1/200	TALUK	Ir.
Cotton	Annual	1957-58	1957-58	10 x 5	1/200	TALUK	Ir.- UI.
Tobacco	Annual	1971-72	1971-72	10 x 5	1/200	TALUK	Ir.- UI.
Avare	Kh.	2007-08	2007-08	5 x 5	1/400	TALUK	
Cowpea	Kh.	2007-08	2007-08	5 x 5	1/400	TALUK	
12. Kerala *							
Paddy	Aut.	1950-51	1950-51	5 x 5	1/400	TALUKA	
	Wint.	1950-51	1950-51	5 x 5	1/400	TALUKA	
	Sum.	1950-51	1950-51	5 x 5	1/400	TALUKA	
Sugarcane		1982-83	1982-83	5 x 5	1/400	TALUKA	
Arecanut		1976-77	1976-77	5 bearing trees	—	TALUKA	
Cashewnut		1976-77	1976-77	5 bearing trees	—	TALUKA	
Turmeric		1989-90	1989-90	2 x 2	1/2500	TALUKA	
Pepper		1976-77	1976-77	5 bearing trees	—	TALUKA	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimensions (MxM)			
1	2	3	4	5	6	7	
Ginger		2004-05	2004-05	N.A.	N.A.	TALUKA	
Cocoa		1982-83	1982-83	5 bearing trees	—	TALUKA	
Banana		1985-86	1985-86	3 plants	—	TALUKA	
Mango		2004-05	2004-05	N.A.	N.A.	TALUKA	
Jackfruit		1988-89	1988-89	2 bearing trees	—	TALUKA	
Pine Apple		1981-82	1981-82	5 bearing trees	—	TALUKA	
Plantain		1986-87	1986-87	3 pits	—	TALUKA	
Tapioca		1963-64	1963-64	2 x 2	1/2500	TALUKA	
Coconut		1976-77	1976-77	5 bearing trees	—	TALUKA	
Sesamum		1984-85	1984-85	5 x 5	1/400	TALUKA	
13. MADHYA PRADESH							
Paddy		1945-46	1955-56	5 x 5	1/400	R.I. CIRCLE	Ir.(Hyv./Lv.) & UI.
Jowar		1946-47	1955-56	5 x 5	1/400	R.I. CIRCLE	
Bajra		1954-55	1956-57	5 x 5	1/400	R.I. CIRCLE	
Maize		1952-53	1957-58	5 x 5	1/400	R.I. CIRCLE	
Wheat		1944-45	1957-58	5 x 5	1/400	R.I. CIRCLE	Ir.(Hyv./Lv.) & UI.
Barley		1951-52	1957-58	5 x 5	1/400	R.I. CIRCLE	
Gram		1950-51	1955-56	5 x 5	1/400	R.I. CIRCLE	
Tur		1950-51	1957-58	10 x 5	1/200	R.I. CIRCLE	
Lakh		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Soyabean		1980-81	1983-84	5 x 5	1/400	R.I. CIRCLE	
Kodon Kutki		1950-51	1955-56	5 x 5	1/400	R.I. CIRCLE	
Chillies		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Banana		1957-58	1957-58	25 trees	—	TALUKA	
Potato		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Onion		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Papaya		1957-58	1957-58	25 trees	—	TALUKA	
Groundnut		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Sesamum		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Rape & Mustard		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Linseed		1957-58	1957-58	5 x 5	1/400	R.I. CIRCLE	
Cotton		1944-45	1957-58	10 M x 11 Rows	-	R.I. CIRCLE	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimensions (MxM)			
1	2	3	4	5	6	7	
14. MAHARASHTRA							
Paddy	Kh.	1945-46	1952-53	10 x 10 10 x 5	1/100 1/200	TEHSIL	Ir./UI/Comp.
	Sum.	1984-85	1993-94	10 x 10 10 x 5	1/100 1/200	TEHSIL	
Jowar	Kh.	1946-47	1952-53	10 x 10	1/100	TEHSIL	
Jowar	Rabi	1945-46	1952-53	10 x 10	1/100	TEHSIL	Ir./UI.
Bajra		1946-47	1958-59	10 x 10	1/100	TEHSIL	Ir./UI/Comp.
Maize	Kh.	1976-77	1958-59	10 x 10	1/100	TEHSIL	
	Rabi	1990-91	-	10 x 10	1/100	TEHSIL	
Ragi		1946-47	1951-52	10 x 5	1/200	TEHSIL	
Wheat		1945-46	1951-52	10 x 10	1/100	TEHSIL	Ir./UI.
Gram		1946-47	1957-58	10 x 10	1/100	TEHSIL	
Tur		1951-52	1967-68	20 x 10	Jan-50	TEHSIL	
Greengram		2001-02	2001-02	N.A.	N.A.	TEHSIL	
Blackgram		2001-02	2001-02	N.A.	N.A.	TEHSIL	
Sugarcane		1959-60	1964-65	5 x 5	1/400	TEHSIL	
Arecanut		1959-60	1959-60	Cluster of 9 palms	-	TEHSIL	
Cashewnut		1967-68	1967-68	Cluster of 6 trees	1/100	TEHSIL	
Groundnut	Kh.	1946-47	1957-58	10 x 10	1/100	TEHSIL	
	Sum.	2001-02	2001-02	10 x 10	1/100	TEHSIL	
Sesamum	Kh.	1959-60	1960-61	10 x 10	1/100	TEHSIL	
	Rabi	1959-60	1960-61	10 x 10	1/100	TEHSIL	
Linseed		1959-60	1970-71	10 x 10	1/100	TEHSIL	
Safflower		1966-67	1966-67	10 x 10	1/100	TEHSIL	
Sunflower	Kh.	1983-84	1992-93	10 x 10	1/100	TEHSIL	
	Sum	1989-90	1993-94	10 x 10	1/100	TEHSIL	
	Rabi	N.A.	N. A.	10 x 10	1/100	TEHSIL	
Coconut		1959-60	1959-60	Cluster of 6 palms	-	TEHSIL	
Niger		1966-67	1975-76	10 x 10	1/100	TEHSIL	
Soyabean		2001-02	2001-02	N. A.	N. A.	TEHSIL	
Cotton		1946-47	1957-58	20 x 10	Jan-50	TEHSIL	Ir./UI/Comp.
Tobacco		1951-52	1958-59	10 x 10	1/100	TEHSIL	
15. MEGHALAYA							
Paddy	Aut.	1971-72	1973-74	5 x 5	1/400	DISTRICT	
	Wint	1971-72	1973-74	5 x 5	1/400	DISTRICT	
Potato	Sum.	1973-74	1977-78	NOT FIXED	-	DISTRICT	
Jute		1973-74	Not adopted	5 x 5	1/400	DISTRICT	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimensions (MxM)			
1	2	3	4	5	6	7	
16. ODISHA							
Paddy	Aut.	1944-45	1959-60	5 x 5	1/400	C.D.BLOCK	
	Wint.	1944-45	1959-60	5 x 5	1/400	C.D.BLOCK	
	Sum.	1963-64	1963-64	5 x 5	1/400	C.D.BLOCK	
Maize	Aut.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Ragi	Aut.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Wheat	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Greengram	Aut.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Blackgram	Aut.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Horsegram	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Sugarcane	Wint.	1976-77	1990-91	5 x 5	1/400	C.D.BLOCK	
Potato	Wint.	1967-68	1967-68	5 Mx 8 rows.	-	C.D.BLOCK	
Groundnut	Aut.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
Sesamum	Aut.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
	Wint.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
	Sum.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
Rape & Mustard	Wint.	1967-68	1990-91	5 x 5	1/400	C.D.BLOCK	
Jute	Aut.	1957-58	1959-60	5 x 5	1/400	C.D.BLOCK	
17. PUNJAB							
Paddy		1951-52	1957-58	5 x 5	1/400	C.D.BLOCK	
Maize		1952-53	1952-53	5 x 5	1/400	C.D.BLOCK	
Wheat		1943-44	1951-52	5 x 5	1/400	C.D.BLOCK	
Barley		1951-52	1956-57	5 x 5	1/400	C.D.BLOCK	
Gram Sugarcane		1951-52	1951-52	5 x 5	1/400	C.D.BLOCK	
		1958-59	1961-62	5 x 5	1/400	C.D.BLOCK	
Rape & Mustard		1958-59	1972-73	5 x 5	1/400	C.D.BLOCK	
Cotton		1958-59	1979-80	10 x 5	1/200	C.D. BLOCK	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimensions (MxM)			
1	2	3	4	5	6	7	
18. RAJASTHAN							
Paddy		1976-77	1976-77	5 x 5	1/400	TEHSIL	
Jowar		1952-53	1953-54	5 x 5	1/400	TEHSIL	
Bajra		1952-53	1956-57	5 x 5	1/400	TEHSIL	
Maize	Kh.	1952-53	1953-54	5 x 5	1/400	TEHSIL	
Wheat		1949-50	1952-53	5 x 5	1/400	TEHSIL	Ir./UI./Comp.
Barley		1951-52	1953-54	5 x 5	1/400	TEHSIL	
Gram		1951-52	1956-57	5 x 5	1/400	TEHSIL	Ir./UI./Comp.
Greengram		1994-95	1994-95	5 x 5	1/400	TEHSIL	
Blackgram		1994-95	1994-95	5 x 5	1/400	TEHSIL	
Moth		1994-95	1994-95	5 x 5	1/400	TEHSIL	
Chowla		1994-95	1994-95	5 x 5	1/400	TEHSIL	
Masur	Cumin Seed	1997-98	1997-98	5 x 5	1/400	TEHSIL	
		1997-98	1998-99	5 x 5	1/400	TEHSIL	
Corinder		1997-98	1998-99	5 x 5	1/400	TEHSIL	
Methi		1997-98	1998-99	5 x 5	1/400	TEHSIL	
Soyabean		1988-89	1988-89	5 x 5	1/400	TEHSIL	
Sugarcane		1970-71	1970-71	5 x 5	1/400	TEHSIL	
Groundnut		1970-71	1970-71	5 x 5	1/400	TEHSIL	
Sesamum		1957-58	1957-58	5 x 5	1/400	TEHSIL	
Rape & Mustard		1957-58	1957-58	5 x 5	1/400	TEHSIL	Ir./UI./Comp
Linseed		1957-58	1958-59	5 x 5	1/400	TEHSIL	
Tara Meera		1997-98	1998-99	5 x 5	1/400	TEHSIL	
Cotton		1953-54	1956-57	10 x 5	1/200	TEHSIL	
Isabgol		1997-98	1998-99	5 x 5	1/400	TEHSIL	
19. TAMIL NADU							
Paddy	K/K/S	1944-45	1955-56	5 x 5	1/400	BLOCK	
	S/T/P	1944-45	1955-56	5 x 5	1/400	BLOCK	
	N/K	1985-86	1985-86	5 x 5	1/400	BLOCK	
Jowar		1950-51	1955-56	5 x 5	1/400	BLOCK	Ir./UI.
Bajra		1950-51	1955-56	5 x 5	1/400	BLOCK	
Ragi		1950-51	1955-56	5 x 5	1/400	BLOCK	Ir./UI.
Redgram		1976-77	1976-77	10 x 5	1/200	BLOCK	
Greengram		1977-78	1977-78	10 x 5	1/200	BLOCK	
Blackgram		1976-77	1976-77	10 x 5	1/200	BLOCK	
Horsegram		1986-87	1986- 87	10 x 5	1/200	BLOCK	

Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape		Stratum	Pre-stratification
				Dimentions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
Sugarcane		1954-55	1964-65	5 x 5	1/400	BLOCK	
Groundnut		1959-60	1973-74	5 x 5	1/400	BLOCK	Ir./UI.
Sesamum		1973-74	1973-74	10 x 5	1/200	BLOCK	Ir./UI.
Cotton		1959-60	1964-65	10 x 5	1/200	BLOCK	Ir./UI.
Sunflower		1983-84	1983-84	10 x 5	1/200	BLOCK	
Varagu		1986-87	1986-87	5 x 5	1/400	BLOCK	
Samai		1986-87	1986-87	5 x 5	1/400	BLOCK	
20. Telangana							
Paddy	Kh. Rabi	1945-46 1945-46	1954-55 1954-55	5 x 5 5 x 5	1/400 1/400	MANDAL	Ir._ UI. Ir.
Jowar	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL	
Bajra		1951-52	1955-56	5 x 5	1/400	MANDAL	
Maize	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL	
Ragi	Kh. Rabi	1951-52 1951-52	1955-56 1955-56	5 x 5 5 x 5	1/400 1/400	MANDAL	
Redgram		1958-59	1960-61	10 x10	1/100	MANDAL	
Greengram	Kh. Rabi	1976-77 1976-77	1976-77 1976-77	5 x 5 5 x 5	1/400 1/400	MANDAL	
Blackgram	Kh. Rabi	1962-63 N. A.	1963-64 N.A.	5 x 5 5 x 5	1/400 1/400	MANDAL	
Horsegram	Kh. Rabi	1980-81 N. A.	1980-81 N. A.	5 x 5 5 x 5	1/400 1/400	MANDAL	
Bengalgram	Rabi	2001-02	2001-02	5 x 5	1/400	MANDAL	
Korra		1976-77	1976-77	5 x 5	1/400	MANDAL	
Sugarcane	Plt. - Rt	1954-55	1957-58	5 x 5	1/400	MANDAL	
Chillies	Kh. Rabi	1976-77 2002-03	1976-77 2002-03	5 x 5 5 x 5	1/400 1/400	MANDAL	
Groundnut	Kh. Rabi	1957-58 1957-58	1959-60 1959-60	5 x 5 5 x 5	1/400 1/400	MANDAL	
Sesamum	Kh. Rabi	1957-58 1957-58	1959-60 1959-60	10 x 10 10 x 10	1/100 1/100	MANDAL	
Castor		1957-58	1964-65	10 x 10	1/100	MANDAL	
Cotton		1957-58	1965-66	10 x 10	1/100	MANDAL	
Mesta		1976-77	1976-77	5 x 5	1/400	MANDAL	
Tobacco	(N & V)	1957-58	1963-64	5 x 5	1/400	MANDAL	
Sunflower	Kh. Rabi	1992-93 N . A.	1992-93 N. A.	5 x 5 5 x 5	1/400 1/400	MANDAL	
Soyabean	Kh.	2003-04	2003-04	5 x 5	1/400	MANDAL	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification		
				1	2	3	4	5	6
21. UTTAR PRADESH									
Paddy		1945-46	1950-51	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Jowar		1950-51	1950-51	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Bajra		1950-51	1950-51	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Maize		1950-51	1950-51	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Wheat		1943-44	1949-50	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Barley		1949-50	1949-50	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Gram	Plain	1949-50	1949-50	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Tur/Arhar		1950-51	1950-51	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Greengram	Kh.	1965-66	1965-66	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
	Zaid.	1978-79	not adopted	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Blackgram	Kh.	1965-66	1965-66	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
	Zaid.	N.A.	N.A.	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Masur		1964-65	1964-65	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Peas		1959-60	1959-60	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
Sawan / Jhongora	Kh.	1976-77	1976-77	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		
	Zaid	1976-77	1976-77	Equilateral Triangle of side 10 mts.		1/230.8	BLOCK		

Crop		Year of initiation of survey	Year of adoption of results	Plot Size & Shape		Stratum	Pre-stratification
				Dimensions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
22. UTTARAKHAND							
Kodan		1978-79	N. A.	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Soyabean		1988-89	Not adopted	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Potato		1979-80	1979-80	5 x 5	1/400	BLOCK	
Onion	Zaid Rabi	1958-59 2005-06	1959-60 2005-06	5 x 5 5 x 5	1/400 1/400	BLOCK BLOCK	
Sugarcane		1959-60	1960-61	5 x 5	1/400	BLOCK	
Groundnut		1956-57	1957-58	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Rape & Mustard		1956-57	1957-58	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Linseed		1959-60	1959-60	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Sesamum		1958-59	1959-60	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Sunflower	Zaid	1991-92	1991-92	Equilateral Triangle of side 10 mts.	1/230.8	BLOCK	
Cotton		1958-59	1960-61	20 x 10	Jan-50	BLOCK	
Tobacco	Rabi Zaid	1988-89 N.A.	- N.A.	5 x 5 5 x 5	1/400 1/400	BLOCK BLOCK	
Paddy		1945-46	1950-51	Equilateral Triangle of side 10 mts. In Plain area and 30 Sq.mt in Hill Area.	1/230.8	TEHSIL	
Ragi		1945-46.	1950-51	Equilateral Triangle of side 10 mts. In Plain area and 30 Sq.mt in Hill Area.	1/230.8	TEHSIL	
Wheat		1945-46	1950-51	Equilateral Triangle of side 10 mts. In Plain area and 30 Sq.mt in Hill Area. side 10 mts.	1/230.8	TEHSIL	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimenstions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
Barley		1945-46	1950-51	Equilateral Triangle of side 10 mts. In Plain area and 30 Sq.mt in Hill Area.	1/230.8	TEHSIL	
Sawan/Jhangora		1945-46	1950-51	Equilateral Triangle of side 10 mts. In Plain area and 30 Sq.mt in Hill Area. side 10 mts.	1/230.8	TEHSIL	
23. WEST BENGAL							
Paddy	Aus.	1975-76	1975-76	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
	Aman.	1944-45	1944-45	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
	Sum.	1980-81	1980-81	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Maize	Kh.	1980-81	1980-81	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Wheat		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Barley		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Gram		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Redgram		1951-52	1951-52	10 x 10 feet	1/435.6 acres	BLOCK	
Greengram		1951-52	1951-52	10 x 10 feet	1/435.6 acres	BLOCK	
Blackgram		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Lakh		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	

Crop		Year of initiation of survey	Year of adoption of results	<u>Plot Size & Shape</u>		Stratum	Pre-stratification
				Dimensions (MxM)	Size (ha.)		
1	2	3	4	5	6	7	
26. PUDUCHERRY							
Masur		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Peas		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Sugarcane		1951-52	1951-52	10 x 10 feet	1/435.6 acres	BLOCK	
Rape & Mustard		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Sesamum	Rabi	1980-81	1980-81	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Linseed		1952-53	1952-53	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Jute		1951-52	1951-52	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
Mesta		1980-81	1980-81	Circle of radius of 1.7145 mts. approx.	1/435.6 acres	BLOCK	
24. DADRA & NAGAR HAVELI							
Paddy		1967-68	1967-68	5 x 5	1/400	PATELAD	
Ragi		1968-69	1968-69	5 x 5	1/400	PATELAD	
25. DAMAN & DIU							
Paddy	Kh.	1967-68	1967-68	5 x 5	1/400	TALUKA	
Bajra		1976-77	1976-77	5 x 5	1/400	TALUKA	
Paddy	I.	1974-75	1974-75	5 x 5	1/400	TALUKA	
	II.	1971-72	1971-72	5 x 5	1/400	TALUKA	
	III.	1974-75	1974-75	5 x 5	1/400	TALUKA	

Note 1. : ** :- In actual practice results are not adopted for official estimates due to small size and considered not reliable at district level

2. : * :- For minor crops, surveys are conducted periodically but not regularly

3. : @ :- Excluding Darjeeling district

APPENDIX - II : CROP COVERAGE UNDER CES DURING 2017-18			
Sl.No	CROPS	STATES COVERING THE CROP UNDER C.E.S.	
1	2	3	
1. FOOD CROPS			
(A) CEREALS			
1	Paddy	Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand, Uttar Pradesh, West Bengal, Dadra & Nagar Haveli, Daman & Diu and Puducherry.	26
2	Jowar	Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Telangana and Uttar Pradesh.	10
3	Bajra	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and Daman & Diu.	11
4	Maize	Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.	18
5	Ragi	Andhra Pradesh, Bihar, Goa, Gujarat, Jharkhand, Karnataka, Maharashtra, Odisha, Tamil Nadu, Telangana, Uttarakhand and Dadra & Nagar Haveli.	12
6	Wheat	Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Telangana, Uttarakhand, Uttar Pradesh and West Bengal.	18
7	Barley	Bihar, Chhattisgarh, Haryana, Himachal Pradesh, Madhya Pradesh, Punjab, Rajasthan, Uttarakhand and Uttar Pradesh.	9
(B) PULSES & BEANS			
1	Gram (Bengalgram)	Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Telangana, Uttar Pradesh and West Bengal.	14
2	Redgram (Tur/Arhar)	Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.	13
3	Greengram (Moong)	Andhra Pradesh, Bihar, Gujarat (on pilot basis), Karnataka, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.	11
4	Blackgram (Urd/Mathikalai)	Andhra Pradesh, Assam, Gujarat, Jharkhand, Karnataka, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.	12

Appendix-II (Cont..)

SI.No	CROPS	STATES COVERING THE CROP UNDER C.E.S.	
1	2	3	
5	Lakh (Khesari)	Bihar, Chhattisgarh, Madhya Pradesh and West Bengal.	4
6	Masur	Bihar, Jharkhand, Rajasthan, Uttar Pradesh and West Bengal.	5
7	Horsegram (Kulthi)	Andhra Pradesh, Karnataka, Odisha, Tamil Nadu and Telangana.	5
8	Peas	Jharkhand, Uttar Pradesh and West Bengal.	3
9	Moth	Gujarat and Rajasthan.	2
10	Chowla	Rajasthan.	1
11	Cowpea (Lobia)	Karnataka	1
12	Guar	Gujarat and Rajasthan	2
(C) SMALL MILLETS			
1	Sawan (Jhangora)	Uttarakhand, Uttar Pradesh.	2
2	Korra	Andhra Pradesh and Telangana	2
3	Kodon-Kutki (Kodan)	Chhattisgarh, Madhya Pradesh and Uttar Pradesh.	3
4	Navane	Karnataka.	1
5	Save	Karnataka.	1
6	Samai	Tamil Nadu	1
7	Varagu	Tamil Nadu.	1
(D) SUGAR			
1	Sugarcane	Andhra Pradesh ,Assam, Bihar, Haryana ,Jharkhand , Karnataka, Kerala, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh ,West Bengal and Goa.	16
2	Cocoa	Kerala.	1
(E) CONDIMENTS & SPICES			
1	Chillies	Andhra Pradesh, Bihar, Chhattisgarh, Karnataka, Madhya Pradesh and Telangana.	6
2	Cumin	Gujarat and Rajasthan.	2
3	Fennel	Gujarat.	1
4	Arecanut	Kerala and Maharashtra.	2
5	Pepper	Kerala.	1
6	Saffron	Jammu and Kashmir.	1
7	Turmeric	Kerala.	1
8	Ginger	Kerala.	1
9	Garlic	Gujarat	1
10	Corinder	Rajasthan.	1
11	Methi	Rajasthan.	1
13	Betel Leaves	Kerala	1
(F) FRUITS & VEGETABLES			
1	Lichi	Bihar	1
2	Banana	Bihar, Kerala and Madhya Pradesh.	3
3	Mango	Bihar. Kerala	2
4	Guava	Bihar.	1
5	Jackfruit	Bihar and Kerala .	2
6	Cashewnut	Kerala and Maharashtra	2
7	Tapioca	Kerala.	1
8	Pine Apple	Kerala.	1
9	Potato	Assam, Bihar, Chhattisgarh, Gujarat, Jammu & Kashmir Jharkhand, Karnataka, Madhya Pradesh, Meghalaya, Odisha, and Uttar - Pradesh	11

Appendix-II (Cont..)

Sl.No	CROPS	STATES COVERING THE CROP UNDER C.E.S.	
1	2	3	
10	Onion	Bihar, Chhattisgarh, Gujarat (On Pilot basis), Jharkhand, Karnataka, Madhya Pradesh and Uttar Pradesh.	7
11	Brinjal	Bihar and Jharkhand.	2
12	Tomato	Bihar and Jharkhand.	2
13	Cauliflower	Bihar.	1
14	Papaya	Madhya Pradesh.	1
15	Plantain	Kerala.	1
16	Avare (Sem)	Karnataka	1
17	Tamarind	Kerala.	1
18	Cabbage	Karnataka	1
19	Beans	Karnataka	1
2. NON - FOOD CROPS			
(A) OIL SEEDS			
1	Groundnut	Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, Goa and West Bengal.	13
2	Sesamum (Gingelly)	Andhra Pradesh, Chhattisgarh, Gujarat, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh and West Bengal.	13
3	Castor	Andhra Pradesh, Gujarat, Karnataka and Telangana.	4
4	Rape & Mustard	Assam, Bihar, Chhattisgarh, Gujarat, Haryana, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Odisha, Punjab, Rajasthan, Uttar Pradesh and West Bengal	13
5	Linseed (Alsi)	Chhattisgarh, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Uttar Pradesh and West Bengal.	7
6	Safflower	Karnataka and Maharashtra.	2
7	Sunflower	Andhra Pradesh, Haryana, Karnataka, Maharashtra, Tamil Nadu, Telangana and Uttar Pradesh	7
8	Soyabean	Andhra Pradesh, Chhattisgarh, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, Telangana and Uttar Pradesh.	8
9	Tara Meera	Rajasthan	1
10	Coconut	Kerala and Maharashtra	2
11	Niger	Maharashtra	1
(B) FIBRES			
1	Cotton	Andhra Pradesh, Gujarat, Haryana, Karnataka, Madhya Pradesh,	12
2	Jute	Assam, Bihar, Meghalaya, Odisha and West Bengal.	5
3	Mesta	Andhra Pradesh, Bihar and West Bengal	3
(C) DRUGS & NARCOTICS			
1	Tobacco	Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Telangana and Uttar Pradesh	6
2	Isabgol	Gujarat and Rajasthan	2
3	Betel Leaves	Kerala	1

Note:- Figures in col.(3) indicate the total no. of States.

APPENDIX - III: PRIMARY FIELD AGENCY FOR CROP CUTTING EXPERIMENTS UNDER CES 2017-18

Sl. No.	State	Agency	Designation	Crops covered (Percentage)
1	2	3	4	5
1	Andhra Pradesh	1. Statistical	1. Assistant Statistical Officer	All Crops 50 %.
		2.Agriculture	2. Agriculture Extension Officer	All Crops 50 %.
2	Assam	Statistical	Field Assistant	All Crops. (100%)
3	Bihar	1. Revenue	Circle Inspector	16.3 Percent of the planned experiments.
		2. Statistical	1. Block Statistical Supervisor. 2 Junior Field Investigator 3 Accredited Statistical Volunteer	8.4 Percent of the planned experiments.
		3.Agriculture	Block Agricultural Officer.	75.30 Percent of the planned experiments.
4	Chhattisgarh	1. Revenue	1. Revenue Inspector	All Crops (100%)
		2. Agriculture	1. Headquarter Patwari 2. Rural Agriculture Extension Officer	
5	Goa	Agriculture	Investigator	All Crops.
6	Gujarat	Agriculture	Gram Sevak	All Crops
7	Haryana	1.Agricultural Officer.	Asstt. Development	Paddy (100), Bajra (100), Maize (47), Sugarcane (100), Cotton (100), Wheat (100), Gram (100), Redgram (100), Rape & Mustard (100) and Sunflower (100), Barley (47)
		2. Revenue	Girdawar Kanungo	Barley (53) and Maize (53).

APPENDIX - III: PRIMARY FIELD AGENCY FOR CROP CUTTING EXPERIMENTS UNDER CES 2017-18

Sl. No.	State	Agency	Designation	Crops covered (Percentage)
1	2	3	4	5
8	Himachal Pradesh	1. Revenue	Field Kanungo	All Crops – 77.58
		2. Agriculture	Agricultural Inspector	All Crops – 22.42
9	Jammu & Kashmir (Data repeated for the year 2011-12)	Revenue	1. Office Qanungo 2. Girdawar Qanungo 3. Backward Class Girdawar 4 . Statistical Girdawar 5 . Patwari	40% 60%
10	Jharkhand (Data repeated for the year 2019-10)	1. Agriculture 2. Statistics 3. Revenue	Block Agriculture Officer Block Statistical Supervisor Circle Inspector	All Crops (25%) All Crops (25%) All Crops (50%)
11	Karnataka	1. Revenue 2.Agriculture 3. Rural Development & Panchayati Raj	Village Accountant Agriculture Asstt. Gram Panchayat Secretary	43.11% 39.28% 17.61%
12	Kerala	Statistical	Investigator	All Crops
13	Madhya Pradesh	Revenue	1. Revenue Inspector 2. Headquarter Patwari	All Crops (97%)
14	Maharashtra	1. Revenue	Revenue Inspector	All Kharif & Rabi Crops (40) %

APPENDIX - III: PRIMARY FIELD AGENCY FOR CROP CUTTING EXPERIMENTS UNDER CES 2017-18

Sl. No.	State	Agency	Designation	Crops covered (Percentage)
1	2	3	4	5
(data repeated for year 2010-11)				
		2. Zila Parishad	Gram Sevak	All Kharif & Rabi Crops (25) %
		3.Agricultural	Agricultural Assistant	All Kharif& Rabi Crops (35) %
15	Meghalaya	Statistical	Field Assistant	All Crops.
16	Odisha	Directorate of	Statistical Field Surveyor	All Crops.
17	Punjab	Agricultural	1. Agricultural Inspector 2. Compost Inspector	All Crops
18	Rajasthan	Revenue	Inspector Land Records	All Crops
19	Tamil Nadu	1.Agricultural Department (GCES,NAIS)	Agricultural Officer	
		2.Statistical Department (GCES,NAIS)	Block Statistical Inspector	All Crops
		3.Horticulture Department (GCES,NAIS)	Assistant Horticulture Officer	
20	Telangana	1. Statistical	1. Assistant Statistical Officer	All Crops 50 %.
		2.Agriculture	2. Agriculture Extension	All Crops 50 %.
21	Uttarakhand	Revenue	1. Patwari / Lekhpal	All Crops (100%)

APPENDIX - III: PRIMARY FIELD AGENCY FOR CROP CUTTING EXPERIMENTS UNDER CES 2017-18

Sl. No.	State	Agency	Designation	Crops covered (Percentage)
1	2	3	4	5
2. Revenue Inspector				
22	Uttar Pradesh	1 .Revenue	Revenue Inspector	All Crops
		2. Cane Development	Cane Inspector	Sugarcane crop (only in factory areas)
		3.Cotton Development	Cotton Supervisor & Kamdar	Cotton Crop.
23	West Bengal	1. Agricultural Statistics (B.A.E & S)	Asstt.Investigator	All Crops
		2. Agriculture Department	Krishi Prajukti Sahayak (K.P.S)	
24	Dadra & Nagar Haveli	1. Block Deptt.	Gram Sewak	All Crops (27%)
		2. SDSCO	Agri. Asstt.	All Crops (38%)
		3. Agri. Deptt.	Agri. Asstt. (Agri.)	All Crops (12%)
		4. Development & Planning Office	Panchayat Secretary	All Crops (23%)
25	Daman & Diu	1. Revenue	Talathi	All Crops (43%)
(Data repeated for the year 2014-15)		2. Statistical	Statistical Investigator	
		3. Rural Deptt.	(i) Gram Sevak (ii) Village Panchayat Secretary	All Crops (36%) All Crops (21%)
26	Puducherry	Directorate of Economics & Statistics	Statistical Investigator	All Crops

**APPENDIX -IV : WORK LOAD OF PRIMARY FIELD STAFF ON ACCOUNT OF
CROP CUTTING EXPERIMENTS UNDER CES DURING 2017-18**

Sl. No.	STATE	Agency for field work	Total Strength	Total number of Experiments assigned			No. of Primary workers with more than		
				Kharif	Rabi / Sum	Total	12 Expts.	20 Expts.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Andhra Pradesh	Statistical	1508	13572	9438	23010	201	128	149
		Agriculture							
2	Assam	Statistical	85	6300	4950	11250	85	85	85
3.	Bihar	Revenue	1068	45961	51897	97858	19	27	11
		Statistical	543				9	18	5
		Agriculture	8248				57	52	36
4	Chhattisgarh	Statistical/Agriculture	507	3968	2718	6686	28	43	151
5	Goa	Agriculture (Kh.)	23	590	460	1050	23	15	23
		(Rabi)	21						
6	Gujarat \$	Agriculture	1466	76425	77721	154146	286	329	370
7	Haryana *	Agriculture (Kh.)	719	9584	4548	----- NC -----	----- NC -----		
		(Rabi)	758				----- NC -----		
		Revenue (Kh.)	6				----- NC -----		
		(Rabi)	52				----- NC -----		
8	Himachal Pradesh	Agriculture (Kh.)	258	4468	3826	8294	----- NC -----		
		(Rabi)	139				----- NC -----		
		Revenue (Kh.)	258				----- NC -----		
		(Rabi)	139				----- NC -----		
9	Jammu & Kashmir	Revenue (Kh.)	2487	3180		3180	----- NC -----		
		(Rabi)			2400	2400	----- NC -----		
10	Jharkhand	Revenue	-	28770	44040	72810	----- NC -----		
		Statistical					----- NC -----		
		Agriculture					----- NC -----		
11	Karnataka	Revenue	6969	86770	52926	139696	----- NC -----		
		Agricultural	1435				----- NC -----		
		RDPR	6555				----- NC -----		
12	Kerala	Statistical	1028	30396	2383	32779	-	-	811
13	Madhya Pradesh *	Revenue	4407	15434	15276	30710	1072	1275	1285
14	Maharashtra	Revenue (Kh.)	3368	56190	26330	82520	----- NC -----		
		Zila Parishad (Kh.)	828				----- NC -----		
		Agriculture (Kh.)	2525				----- NC -----		
		Revenue (Rabi)	2961				----- NC -----		
		Zila Parishad (Rabi)	655				----- NC -----		
		Agriculture (Rabi)	3894				----- NC -----		
15	Meghalaya	Statistical	46	1766	314	2080	46	24	46
16	Odisha	Statistical	677	38128	9303	47431	-	-	677

Appendix-IV (Cont.)

Sl. No.	STATE	Agency for field work	Total Strength	Total number of Experiments assigned			No. of Primary workers with more than			
				Kharif	Rabi / Sum	Total	12 Expts.		20 Expts.	
							Kharif	Rabi/Sum	Annual	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
17	Punjab	Agriculture (Kh.)	738	3714		3714	153	-	8	
		(Rabi)	696		3238	3238	-	13	1	
18	Rajasthan \$	Agriculture (Kh.)	8512	130278	107312	237590	-	-	-	
		(Rabi)	4269				-	-	-	
19	Tamil Nadu	Agriculture	831	5752	3748	9500	-	-	-	
20	Telangana	Statistical	2290	8938	6986	15924	178	67	55	
		Agriculture								
21	Uttarakhand	Revenue (Kharif)	1804	4692	3630	8322	3	1	7	
		Revenue (Plain)	1342				3	1	7	
		Revenue (Hills)	462				-	-	-	
22	Uttar Pradesh \$	Revenue (Kh.)	1267	325280	317324	642604	-	-	-	
		(Rabi)	1063				-	-	-	
		(Zaid)	1158				-	-	-	
		Cane Dev. Staff	-				-	-	-	
		Cotton Dev. Staff	-				-	-	-	
23	West Bengal	Agricultural Statistics	254	20564	28386	48950	210	242	183	
24	Dadra & Nagar Haveli	Development & Planning	13	62	0	62	-	-	-	
		Division Soil Conservation	10	30	0	30	-	-	-	
		Agriculture Deptt.	3	8	0	8	0	-	0	
25	Daman & Diu	Rural Dev. (Kh.)	4	4	0	4	----- NC -----			
		Rev. Dept. (Kh.)	3	18	0	18	----- NC -----			
		Stat. Dept. (Kh.)	3	6	0	6	----- NC -----			
26	Puducherry	Statistical (Kh.)	22	98	0	98	----- NC -----			
		Rabi -I	0	0	140	140	-	8	-	
		Rabi -II	0	0	70	70	----- NC -----			
Total			78377	916398	779364	1695762	2373	2320	3910	
Percentage %							3.0	3.0	5.0	

Note : 1. # : Percentage figures given under Col.8 , 9 and 10 are based on total figures in col. 4. Those states have been excluded for percentage calculation where data under column (8) to (10) has not been received.

2. * : Data repeated from the year 2015-16.

3. ** : Data repeated from the year 2015-16.

4. \$: Data given under Col. 4 is repeated from the year 2016-17.

5. @ : Data given under Col. 4 is repeated from the year 2016-17.

APPENDIX - V ESTIMATION PROCEDURE UNDER CES

The methodology generally adopted for estimating the average yield of a crop and its sampling error is outlined below:

At the stratum level, the average yield of the crop is obtained as a simple arithmetic mean of plot yields (net) within it.

If

X_{ijk} = The plot yield (net) in gms/plot of the k^{th} plot in the j^{th} village in the i^{th} stratum

n_{ij} = No of experiments analysed in the j^{th} village of i^{th} stratum,

m_i = Number of villages in which experiments are analysed in the i^{th} stratum .

n_i = Number of experiments analysed in the i^{th} stratum

S = The number of strata in a district

a_i = The area (net) of the crop in the i^{th} stratum

\bar{x}_{ij} = The sample arithmetic mean of the green yield of the i^{th} stratum,

\bar{x} = The district average yield of the dry marketable produce

d = The driage ratio

and f = The conversion factor for converting the green yield per plot into the yield of dry marketable produce per hectare.

We have the stratum level average of the green yield as

$$\bar{x}_{ij} = \frac{1}{n_i} \sum_{j=1}^{m_i} \sum_{k=1}^{n_{ij}} X_{ijk}$$

and the district level average yield of the dry marketable produce per hectare is given by

APPENDIX - V ESTIMATION PROCEDURE UNDER CES

$$\bar{x} = d.f. \frac{\sum_{i=1}^s a_i \bar{x}_{ij}}{\sum_{i=1}^s a_i}$$

The sampling variance of the mean \bar{x} is obtained as

$$V(\bar{x}) = \frac{d^2 \cdot f^2 \left[W \sum_{i=1}^s \frac{a_i^2}{n_i} + (B - W) \sum_{i=1}^s \frac{a_i^2}{\lambda_i n_i^2} \right]}{\left[\sum_{i=1}^s a_i \right]^2}$$

$$n_i^2 - \sum_{j=1}^{m_i} n_{ij}^2$$

$$\text{Where } \lambda_i = \frac{n_i^2 - \sum_{j=1}^{m_i} n_{ij}^2}{n_i - (m_i - 1)}$$

$$B = \frac{s \sum_{i=1}^s \left[\frac{\sum_{j=1}^{m_i} \left(\sum_{k=1}^{n_{ij}} x_{ijk} \right)^2 - \left(\sum_{j=1}^{m_i} \sum_{k=1}^{n_{ij}} x_{ijk} \right)^2}{n_i} \right]}{\sum_{i=1}^s (m_i - 1)}$$

$$B = \sum_{i=1}^s (m_i - 1)$$

the mean square between villages

APPENDIX - V ESTIMATION PROCEDURE UNDER CES

$$W = \frac{\sum_{i=1}^s \left[m_i \sum_{j=1}^{n_{ij}} \sum_{k=1}^{m_i} x_{ijk}^2 - \sum_{j=1}^s \frac{\left(\sum_{k=1}^{n_{ij}} x_{ijk} \right)^2}{n_{ij}} \right]}{\sum_{i=1}^s (n_i - m_i)}$$

the mean square within villages

The percentage standard error is given by

$$\% \text{ SE} (\bar{x}) = \frac{\sqrt{V(\bar{x})}}{\bar{x}} \times 100$$

Note:

- (i) In case the crop sown is pure, the net yield is the same as the actual yield obtained from the plot.
- (ii) If the crop is sown in mixture, then the net yield is obtained by dividing the actual yield by the eye estimate of the proportion of area occupied by the concerned crop as per the primary worker at time of crop cutting experiments.
- (iii) Net area under the crop in a stratum is the sum of the area under the pure crop and the apportioned area under the crop from all mixed crops having the crop as component, the apportionment being done at the field level on the basis of eye estimation at the time of area enumeration in some states and at district level in others on the basis of conventional ratio.

APENDIX-VI: PROCEDURE FOR DRIAGE EXPERIMENTS UNDER CES 2017-18

Sl No.	State	Crops	Contents of produce for weightment		Sub-sampling not done/done at the level of village/field/both	Sampling produce to be dried part (Weight or whole)	Duration of drige (Codes)	Level of Application Stratum/District/ State
			First	Final				
1	2	3	4	5	6	7	8	9
1	Andhra Pradesh	Paddy (Kh.& Rabi)	Wet Paddy	Dry paddy	Village	1 Kg.	C.W.	State
		Jowar (Kh.& Rabi)	Cobs	Dry Grains	Village	2 Kgs.	C.W.	State
		Bajra,	Cobs	Dry Grains	Village	2 Kgs	C.W.	State
		Maize (Kh.& Rabi)	Cobs	Dry Grains	Village	2 Kgs	C.W.	State
		Ragi (Kh.& Rabi)	Cobs	Dry Grains	Village	2 Kgs	C.W.	State
		Korra	Cobs	Dry Grains	Village	2 Kgs	C.W.	State
		Chillies (Kh.& Rabi)	Wet Chillies	Dry Grains	Village	500 gms.	C.W.	State
		Castor	Wet Capsules	Dry Capsules	Village	500 gms. Each picking	C.W.	State
		Groundnut (Kh.&Rabi)	Green Pods	Dry Pods	Village	2 Kgs.	C.W.	State
		Sunflower (Kh. & Rabi)	Green seed	Dry Seed	Village	500 gms.	C.W.	State
2	Assam	Mesta	WetPlants	Dry Fibre	Village	25 Kgs.	C.W.	State
		Paddy. (Aut.Wint. & Sum)	Wet Paddy	Dry paddy	Village	1 Kg.	C.W.	Stratum
		Wheat	Wet Grain	Dry Grain	Village	1 Kg.	C.W.	Stratum
		Blackgram	Wet Grain	Dry Grain	Village	1 Kg.	C.W.	Stratum
		Rape & Mustard	Wet Grain	Dry Grain	Village	1 Kg.	C.W.	Stratum
3	Bihar	Jute	Wet Plants	Dry Fibre	Village	Whole	Weight Dry Fibre	Stratum
		Paddy(Bha.Agh.&Gar.)	Wet Paddy	Dry paddy	Village	Whole	15 days	District
		Maize(Bha.Rabi.,&Gar.)	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Ragi	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Wheat	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Barley	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Gram	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Redgram	Wet Grain	Dry Grain	Village	Whole	31 days	District
		Greengram (Bha & Gar.)	Wet Grain	Dry Grain	Village	Whole	15 days	District
		Lakh	Wet Grain	Dry Grain	Village	Whole	15 days	District
4	Chhattisgarh	Masur	Wet Grain	Dry Grain	Village	Whole	15 days	District
		Rape & Mustard	Wet Grain	Dry Grain	Village	Whole	15 days	District
		Chillies	Wet Chillies	Dry chillies	Both	Whole	15 days	District
		jute	Wet Plants	Dry Fibre	Village	Whole	17 days	District
		Mesta	Wet Plants	Dry Fibre	Village	Whole	17 days	District
		Paddy	Wet Paddy	Dry Paddy	Village	Whole	15 days	District
		Jowar	Cobs	Dry grain	Village	Whole	15 days	District
		Maize	Cobs	Dry grain	Village	Whole	15 days	District
		Wheat	Cobs	Dry grain	Village	Whole	15 days	District
		Barley	Cobs	Dry grain	Village	Whole	15 days	District
5	Goa	Gram	Cobs	Dry grain	Village	Whole	15 days	District
		Kodan Kutki	Wet grain	Dry grain	Village	Whole	15 days	District
6	Gujrat	Groundnut	Wet Pods	Dry pods	village	whole	15 days	District
		Paddy (Kh. & Rabi)	Wet Paddy	Dry paddy	Village	5 Kgs.	10 to 15 days	Stratum
		Paddy (Kh. & Sum.)	Wet paddy	Dry paddy	Not done	1 Kg.	part	Stratum
		Jowar (Kh. & Rabi)	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Bajra (Kh. & Sum.)	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Maize	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Ragi	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Wheat	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum

App.-VI (Cont.)

Sl No.	State	Crops	Contents of produce for weightment		Sub-sampling not done/done at the level of village/field/both	Sampling produce to be dried part (Weight or whole)	Duration of driage (Codes)	Level of Application Stratum/District/ State
			First	Final				
1	2	3	4	5	6	7	8	9
7	Haryana	Gram	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Groundnut(Kh.& Sum.)	Wet grain	Dry grain	Not done	1 Kg.	C.W.	Stratum
		Paddy	Wet paddy	Dry padyy	Not done	Whole	15 days	State
		Bajra	Cobs	Dry grain	Not done	Whole	22 days	State
		Maize	Cobs with sheath	Dry grain	Not done	Whole	22 days	State
		Wheat	Wet grain	Dry grain	Not done	Whole	15 days	State
		Barley	Wet grain	Dry grain	Not done	Whole	15 days	State
8	Himachal Pradesh	Gram	Wet grain	Dry grain	Not done	Whole	15 days	State
		Rape & Mustard	Wet grain	Dry grain	Not done	Whole	15 days	State
		Paddy	Wet paddy	Dry paddy	Village	Whole	15 days	State
		Maize	Cobs	Dry grain	Village	Whole	31 days	State
		Wheat	Wet grain	Dry grain	Village	Whole	15 days	State
9	Jammu & Kashmir	Barley	Wet grain	Dry grain	Village	Whole	15 days	State
		Paddy	Wet paddy	Dry paddy	Village	2 Kgs.	15 days	District
		Maize	Wet cobs	Dry cobs	Village	2 Kgs.	25 days	District
		Wheat	Wet grain	Dry grain	Village	2 Kgs.	15 days	District
		Saffron	Wet bristles	Dry bristles	Field	Whole	10 days	District
10	Jharkhand	Rape & Mustard	Wet grain	Dry grain	Village	1 Kg.	15 days	District
		Linseed	Wet grain	Dry grain	village	1 Kg.	15 days	District
		Paddy (Agh.)	Wet paddy	Dry paddy	Village	Whole	15 days	District
		Wheat	Wet grain	Dry grain	Village	Whole	31 days	District
		Barley	Wet grain	Dry grain	Village	Whole	31 days	District
		Gram	Wet grain	Dry grain	Village	Whole	31 days	District
11	Karnataka	Redgram	Wet grain	Dry grain	Village	Whole	31 days	District
		Masur	Wet grain	Dry grain	Village	Whole	15 days	District
		Rape & Mustard	Wet grain	Dry grain	Village	Whole	15 days	District
		Paddy (Kh.Rabi.&Sum.)	Wet paddy	Dry paddy	Expts.	1 Kg.	C.W.	District
		Jowar (Kh.Rabi.&Sum.)	Cobs	Dry grain	Expts.	1 Kg.	C.W.	District
		Bajra (Kh.)	Cobs	Dry grain	Expts.	1 Kg.	C.W.	District
		Maize(Kh.Rabi.&Sum.)	Cobs	Dry grain	Expts.	1 Kg.	C.W.	District
		Ragi (Kh.Rabi.&Sum.)	Cobs	Dry grain	Expts.	1 Kg.	C.W.	District
		Navane	Cobs	Dry grain	Expts.	1 Kg.	C.W.	District
		Wheat	Wet grain	Dry grain	Expts.	1 Kg.	C.W.	District
		Gram	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Redgram	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Greengram (Kh.& Rabi)	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Blackgram (Kh. &Rabi)	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Horsegram (Kh. &Rabi)	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Soyabean	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Sesamum	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Save	plants	Dry grain	Expts.	1 Kg.	C.W.	District
		Groundnut (Kh. &Sum.)	Wet pods	Dry grain	Expts.	1 Kg.	C.W.	District
		Castor	Capsules	Dry seeds	Expts.	1 Kg.	C.W.	District
		Linseed	Plants	Dry seeds	Expts.	1 Kg.	C.W.	District
		Safflower	Plants	Dry seeds	Expts.	1 Kg.	C.W.	District
		Sunflower(Kh. Rabi & Sum.)	Flower	Grain	Expts.	1 Kg.	C.W.	District
		Tobacco	Green leaves	Cured leaves	Expts.	1 Kg.	C.W.	District

App.-VI (Cont.)

Sl No.	State	Crops	Contents of produce for weightment		Sub-sampling not done/done at the level of village/field/both	Sampling produce to be dried part (Weight or whole)	Duration of drige (Codes)	Level of Application Stratum/District/State
			First	Final				
1	2	3	4	5	6	7	8	9
12	Kerala	Paddy (Aut. Wint. & Sum)	Wet paddy	Dry paddy	Both	250 grms.	C.W.	District
13	Madhya Pradesh	Paddy	Wet paddy	Dry paddy	village	Whole	15 days	District
		Jowar	Cobs	Dry grain	village	Whole	15 days	District
		Bajra	Cobs	Dry grain	village	Whole	15 days	District
		Maize	Cobs	Dry grain	village	Whole	15 days	District
		Wheat	Cobs	Dry grain	village	Whole	15 days	District
		Barley	Cobs	Dry grain	village	Whole	15 days	District
		Gram	Cobs	Dry grain	village	Whole	15 days	District
		Kodan Kutki		Wet grain	Dry grain	village	Whole	15 days
		Groundnut		Wet pods	Dry pods	village	Whole	15 days
14	Maharashtra	Paddy (Kh. & Rabi)	Wet Paddy	Dry Paddy	village	5 Kgs.	15 days	District
		Jowar (Kh. & Rabi)	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Bajra	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Maize (Kh. & Rabi)	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Ragi	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Wheat	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Gram	Wet Grain	Dry grain	village	5 Kgs.	C.W.	District
		Groundnut	Wet Pods	Wet Pods	village	5 Kgs.	15 days	District
		Arecanut	Asoli	Rotha	village	5 Kgs.	21-28 days	District
		Cashewnut	Wet Nut	Dry Nut	village	5 Kgs.	C.W.	District
15	Meghalaya	Paddy (Aut. & Wint.)	Wet Paddy	Dry Paddy	Both	Whole	7-10 days	District
		Jute	Wet Plants	Dry Nut	Both	Whole	20-28 days	District
16	Odisha	Paddy (Aut. Wint. & Sum)	Wet Paddy	Dry Paddy	Both	1 Kgs.	C.W.	District
		Maize (Aut. Wint. & Sum)	Cobs	Dry grain	Both	1 Kgs.	C.W.	State
		Ragi (Aut. Wint. & Sum)	Pods	Dry grain	Both	1 Kgs.	C.W.	State
		Wheat (Sum.)	Wet grain	Dry grain	Both	1 Kgs.	C.W.	State
		Greengram (Aut. Wint. & Sum)	Wet grain	Dry grain	Both	250 gms.	C.W.	State
		Blackgram (Aut. Wint. & Sum)	Wet grain	Dry grain	Both	250 gms.	C.W.	State
		Horsegram (Wint. & Sum)	Wet grain	Dry grain	Both	250 gms.	C.W.	State
		Groundnut (Aut., Wint & Sum.)	Wet Pods	Kernal	Both	250 gms.	C.W.	State
		Sesamum (Aut., Wint & Sum.)	Wet Pods	Dry grain	Both	250 gms.	C.W.	State
		Rape & Mustard (Wint.)	Wet Pods	Dry grain	Both	250 gms.	C.W.	State
		Jute	Wet Plants	Dry Fibre	Both	1 kgs.	C.W.	State
17	Punjab	Paddy	Wet Paddy	Dry Paddy	Village	Whole	15 Days	State
		Maize	Cobs with Sheath	Dry grain	Not Done	5 kgs.	20 Days	State
		Wheat	Wet grain	Dry grain	Village	Whole	15 Days	State
		Barley	Wet grain	Dry grain	Village	Whole	15 Days	State
		Gram	Wet grain	Dry grain	Village	Whole	15 Days	State
		Rape & Mustard	Wet grain	Dry grain	Village	Whole	15 Days	State
		Cotton	Wet Kapas	Dry grain	Village	Whole II Picking	15 Days	State
18	Rajasthan	Paddy	Wet Paddy	Dry paddy	Not done	Whole	15 days	District
		Jowar	Cobs	Dry grain	Village	Whole	22 days	District
		Bajra	Cobs	Dry grain	Village	Whole	22 days	District
		Maize (Kh. & Rabi)	Cobs	Dry grain	Village	Whole	22 days	District
		Wheat	Wet grain	Dry grain	Village	Whole	15 days	District
		Barley	Wet grain	Dry grain	Village	Whole	15 days	District

Appe.-VI (Cont.)

Sl No.	State	Crops	Contents of produce for weightment		Sub-sampling not done/done at the level of village/field/both	Sampling produce to be dried part (Weight or whole)	Duration of drige (Codes)	Level of Application Stratum/District/ State
			First	Final				
1	2	3	4	5	6	7	8	9
		Gram	Wet grain	Dry grain	Village	Whole	15 days	District
		Chowla						District
		Greengram						District
		Blackgram			N.A.			District
		Moth						District
		Cumin						District
		Soyabean	Wet grain	Dry paddy	Village	Whole	15 days	District
		Groundnut	Wet Pods	Dry grain	Not done	Whole	15 days	District
		Sesamum	Wet grain	Dry grain	Not done	Whole	15 days	District
		Rape & Mustard	Wet grain	Dry grain	Not done	Whole	15 days	District
		Linseed	Wet grain	Dry grain	Not done	Whole	15 days	District
		Tarameera	Wet grain	Dry grain	Not done	Whole	N.A.	District
19	Tamil Nadu	Paddy (K/K/S., S/T/P,& N/K)	Wet Paddy	Dry paddy	Village	2 kgs.	C.W.	Block
		Bajra	Wet cobs	Dry Cobs	Village	2 kgs.	C.W.	Block
		Jowar	Wet cobs	Dry Cobs	Village	2 kgs.	C.W.	Block
		Ragi	Wet cobs	Dry Cobs	Village	2 kgs.	C.W.	Block
		Turmeric	Wet Turmeric	Dry Turmeric	Not Done	1 Kgs.	C.W.	Taluka
		Chillies	Wet Chillies	Dry Chillies	Not Done	1 Kgs.	3 to 4 days	Taluka
		Coriander	Wet Corinder	Dry Corinder	Not Done	1 Kgs.	C.W.	Taluka
		Varagu	Wet grain	Dry grain	Village	2 kgs.	C.W.	Block
		Samai	Wet grain	Dry grain	Village	2 kgs.	C.W.	Block
		Groundnut	Wet pods	Dry pods	Village	2 kgs.	C.W.	Block
20	Telangana	Paddy (Kh. & Rabi)	Wet Paddy	Dry Paddy	Village	1 Kgs.	C.W.	State
		Paddy (Kh. & Rabi)	Cobs	Dry grain	Village	2 kgs.	C.W.	State
		Bajra	Cobs	Dry grain	Village	2 kgs.	C.W.	State
		Maize (Kh. & Rabi)	Cobs	Dry grain	Village	2 kgs.	C.W.	State
		Ragi (kh. & Rabi)	Cobs	Dry grain	Village	2 kgs.	C.W.	State
		Korra	Cobs	Dry grain	Village	2 kgs.	C.W.	State
		Chillies (kh. & Rabi)	Wet Chillies	Dry grain	Village	500 gms.	C.W.	State
		Castor	Wet Capsules	Dry Capsules	Village	500 gms.	C.W.	State
		Groundnut (kh. & Rabi)	Green Pods	Dry Pods	Village	2 kgs.	C.W.	State
		Sunflower (kh. & Rabi)	Green Seed	Dry Seed	Village	500 gms.	C.W.	State
		Mesta	Wet Plants	Dry Fibre	Village	25 kgs.	C.W.	State
21	Uttar Pradesh	Paddy	Wet Paddy	Dry Paddy	Village	5 Kgs.	15 days	District
		Jowar	Cobs	Dry grain	Village	10 kgs.	15 days	District
		Bajra	Cobs	Dry grain	Village	10 kgs.	15 days	District
		Maize	Cobs	Dry grain	Village	10 kgs.	15 days	District
		Ragi	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Wheat (Pln.)	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Barley (Pln.)	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Gram	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Greengram(kh. & Zaid.)	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Blackgram(kh. & Zaid.)	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Masur	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Soyabean	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Peas	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Sawan/ Jhangora (Pln)	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Kodan	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Kutki	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Tur	Pods	Dry grain	Village	5 Kgs.	15 days	District
		Groundnut	Pods	Dry pods	Village	5 Kgs.	15 days	District

App.-VI (Cont.)

Sl No.	State	Crops	Contents of produce for weightment		Sub-sampling not done/done at the level of village/field/both	Sampling produce to be dried part (Weight or whole)	Duration of drige (Codes)	Level of Application Stratum/District/State
			First	Final				
1	2	3	4	5	6	7	8	9
22	Uttarakhand	Sesamum	Pods	Dry pods	Village	10 kgs.	15 days	District
		Rape & Mustard	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Linseed	Wet grain	Dry grain	Village	5 Kgs.	15 days	District
		Sunflower	N.A.	N.A.	N.A.	N.A.	N.A.	District
		Cotton (Desi/American)	Wet Cotton	Dry Cotton	Expts.	Whole	Same day	District
		Tobacco	Wet leaf & Stalk	Dry leaf & Stalk	village	10 kgs.	20 days	District
		Paddy	Wet Paddy	Dry Paddy	village	5 Kgs.	15 days	District
		Wheat (Pln.)	Wet grain	Dry grain	village	5 Kgs.	15 days	District
		Barley (Pln.)	Wet grain	Dry grain	village	5 Kgs.	15 days	District
		Paddy (Aus. Aman & Sum.)	Wet Paddy	Dry Paddy	Expts.	500 gms.	12 days	Block
23	West Bengal	Wheat	Ear heads	Dry grain	Expts.	500 gms.	12 days	Block
		Barley	Ear heads	Dry grain	Expts.	500 gms.	12 days	Block
		Maize	Ears without cover	Dry Corns	Expts.	500 gms.	12 days	Block
		Gram	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Redgram	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Blackgram	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Lakh	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Masur	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Peas	Pods	Seeds	Expts.	500 gms.	12 days	Block
		Rape & Mustard	Pods	Seeds	Expts.	500 gms.	12 days	Block
24	Dadar & Nagar Haveli	Linseed	Seed buds	Seeds	Expts.	500 gms.	12 days	Block
		Sesamum	Seed buds	Seeds	Expts.	500 gms.	12 days	Block
		Jute	Plants	Dry Fibre	Expts.	20 kgs.	12 days	Block
		Mesta	Plants	Dry Fibre	Expts.	20 kgs.	12 days	Block
25	Daman & Diu	Paddy	Wet Paddy	Dry Paddy	Expts.	1 kg / Sample	3 days	Stratum
		Ragi	Wet grain	Dry grain	Expts.	1 kg / Sample	3 days	Stratum
26	Puducherry	Paddy (I, II, III)	Wet Paddy	Dry Paddy	Not Done	Part	6 to 9 days	Regional Level.

Note : 1. C.W. = Constant Weight for unspecified consecutive weightment.

2. C.W. - 3 = Constant Weight for 3 consecutive weightment.

APPENDIX -VII:- SAMPLE SIZE UNDER I.C.S. KHARIF (CENTRAL SAMPLES) DURING 2017-18														
Number of experiments planned under crops														
Sl. No	State	Rice	Jowar	Bajra	Maize	Ragi	Tur	Cotton	Jute	Sugar-Cane	Ground-nut	Other * Crops	Sub-Total	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Andhra Pradesh	180	-	40	-	-	40	40	-	60	140	-	500	
2	Assam	Aut.	100	-	-	-	-	-	30	40	-	-		
		Wint.	120										290	
3	Bihar	Aut.	40	-	-	40	-	-	-	40	-	-		
		Wint.	240										360	
4	Chhattisgarh		80	-	-	40	-	40	-	-	-	40	200	
5	Gujarat		80	-	110	40	-	46	220	-	-	150	104	
6	Haryana		90	-	104	20	-	-	56	-	50	-	320	
7	Himachal Pradesh		60	-	-	90	-	-	-	-	-	-	150	
8	Jammu & Kashmir		70	-	-	90	-	-	-	-	-	-	160	
9	Jharkhand	Aut.	20	-	-	20	-	-	-	-	-	-		
		Wint.	80										120	
10	Karnataka		144	50	50	50	40	40	56	-	40	70	80	
11	Kerala	Aut.	100	-	-	-	-	-	-	-	-	-		
		Wint.	100										200	
12	Madhya Pradesh		100	100	-	80	-	80	48	-	-	40	180	
13	Maharashtra		82	80	60	-	-	100	140	-	68	60	260	
14	Odisha	Aut.	220	-	-	40	-	-	-	-	-	-		
		Wint.	270										120	
15	Punjab		190	-	-	48	-	-	72	-	70	-	380	
16	Rajasthan		-	60	60	50	-	-	40	-	40	40	230	
17	Tamil Nadu	Ph-I	60	-	-	-	-	-	-	-	-	-		
		Ph-II	120	-	-	-	-	-	-	-	-	-	180	
18	Telangana		70	40	-	40	-	40	40	-	-	40	80	
19	Uttar Pradesh		660	40	150	170	-	60	-	-	200	-	100	
20	Uttrakhand		50	-	-	-	40	-	-	-	40	-	130	
21	West Bengal	Aut.	100	-	-	-	-	-	-	80	-	-		
		Wint.	160										340	
22	Puducherry		10	-	-	-	-	-	-	-	-	-	10	
	TOTAL		3596	370	574	818	80	446	712	110	648	540	1194	9088

Note:-* Andhra Pradesh -Castor (40),Greengram (40), Chattisgarh-Kodon Kutki (40), Gujarat-Sesamum (54), Castor (50),
Karnataka- Greengram (40), Sunflower (40), Madhya Pradesh- Soyabean (100), Kodan Kutki (40),
Sesamum (40), Maharashtra-Greengram (110), Blackgram (80), Soyabean (70), Odisha-Potato (40)-W,Blackgram (40)-W,

Horsegram (40)-W, Rajasthan-Sesamum (80), Greengram(50), Moth(60), Blackgram(40), TamilNadu-Sesamum (60)

Uttar Pradesh - Blackgram (60), Sesamum (40)

2.The sample checks are undertaken by the supervisory staff of NSSO (FOD) and State Govts. on matching basis in two non-overlapping samples.

APPENDIX -VII:- SAMPLE SIZE UNDER I.C.S. (CENTRAL SAMPLES) DURING 2017-18												
Number of experiments planned for Rabi & Summer crops												
Sl. No	State	Rice (Sum.)	Jowar (Rabi)	Maize (Sum.)	Wheat	Barley	Gram	Ground -nut	Rape & Mustard	Other Crops **	Sub- Total	Total for all Crops
1	2	15	16	17	18	19	20	21	22	23	24	25
1	Andhra Pradesh	90	-	-	-	-	40	50	-	-	180	680
2	Assam	40	-	-	50	-	40	50		70	230	520
3	Bihar	40	-	-	230	-	40	-	40	40	390	750
4	Chhattisgarh	-	-	-	40	-	40	-	30	40	150	350
5	Gujarat	-	-	-	150	-	40	-	50	-	240	990
6	Haryana	-	-	-	180	30	70	-	100	-	380	700
7	Himachal Pradesh	-	-	-	110	40	-	-	-	-	150	300
8	Jammu & Kashmir	-	-	-	120	-	-	-	-	-	120	280
9	Jharkhand	-	-	-	40	-	20	-	20	20	100	220
10	Karnataka	40	70	-	50	-	40	40	-	40	280	900
11	Kerala	100	-	-	-	-	-	-	-	220	320	520
12	Madhya Pradesh	-	-	-	250	-	140	-	60	74	524	1152
13	Maharashtra	-	150	-	150	-	100	-	-	50	450	1300
14	Odisha	140	-	-	-	-	-	-	-	40	180	830
15	Punjab	-	-	-	220	30	30	-	40	-	320	700
16	Rajasthan	-	-	-	130	80	120	-	90	-	420	940
17	Tamil Nadu	40	60	40	-	-	-	100	-	130	600	780
18	Telangana	90	40	-	-	-	-	-	-	-	130	480
19	Uttar Pradesh	-	-	-	570	-	50	-	100	200	920	2300
20	Uttrakhand	-	-	-	60	-	-	-	-	-	60	190
21	West Bengal	140	-	-	110	-	-	-	110	50	410	750
22	Puducherry (I)	10	-	-	-	-	-	-	-	-	10	20
	(II)	10	-	-	-	-	-	-	-	-	10	10
	TOTAL	740	320	40	2460	180	770	240	640	974	6574	15662

Note : 1. ** Andhra Pradesh -Blackgram (40), Assam -Blackgram (30), Potato - (40), Bihar-Tur (40), Chhattisgarh-Linseed (40), Jharkhand -Tur (20), Karnataka - Sunflower (40), Kerala -Pepper (40), Arecaanut (40), Banana (60), Plantain (40), Madhya Pradesh - Linseed (74), Maharashtra - Safflower (50), Odisha - Greengram (40) -S, Rajasthan-Linseed(40), Uttar Pradesh - Greengram (40), Blackgram (40), Masur (60), Potato (60),West Bengal - Sesamum (50).

Tamil Nadu- Bajra(40), , Ragi(40), Cotton(100), Sugarcane(50), Sesamum(50), Blackgram(40),Greenram(40)

2. The sample checks are undertaken by the supervisory staff of NSSO (FOD) and State Govts. on matching basis in two non-overlapping samples.