

Government of Jammu & Kashmir



**REPORT ON TYPE STUDY “SEED
RATE OF CROPS OTHER THAN
THOSE COVERED IN COST OF
CULTIVATION SURVEY (CCS)”**

Reference Period: - 2006-2007

CONDUCTED BY:-

**Directorate of Economics & Statistics
Planning & Development Department**

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Analytical Portion - I

TYPE STUDY ON SEED RATE OF CROPS OTHER THAN THOSE COVERED IN COST OF CULTIVATION SURVEY (CSS)”

INTRODUCTION :

State Domestic Product Estimates (SDP) and Gross Capital Formation Estimates (GCF) are build up in the state strictly on the methodology and guidelines emanated by Central Statistical Organisation (CSO). The methodology approach is uniform in all the states, to make the estimates comparable. To work out value of output / value added for some items rates and ratios are applied, which require updation after certain period of time.

Government of India (GOI) had set up National Statistical Commission (NSC) under the Chairmanship of Dr. C. Rangarajan to review the Indian Statistical System and suggest measures to revamp the same. The NSC in its first report submitted to the government recommended various type studies to improve the existing rates and ratios used in the estimations of State Domestic Products (SDP) and Capital Formation (CF). The rates and ratios used were age old and required updating. Accordingly, Ministry of Statistics and Programme Implementation, Which was nominated as nodal Ministry, asked many State Directorate's of Economics & Statistics to launch certain studies and directed Central Statistical Organisation (CSO) to give technical details for conducting these studies. The Directorate of Economics & Statistics, Government of Jammu & Kashmir, proposed some eight studies in the sectors of agriculture, livestock, fisheries, forestry, trade and transport. A proposal to this effect was sent to GOI, which desired a comprehensive workable proposal and the guidelines were issued vide D.o. No. M-11013/3/2002/NAD-9 dated: 30-10-2003. In view of those guidelines a comprehensive workable proposal was sent to GOI for accord of approval and technical improvements. This proposals was subsequently put before the Screening Committee, in the fourth meeting, which took place on 6-10-2004. The committee recommended following studies

for Jammu and Kashmir. The extract of the minutes of meeting, issued vide No: M-11013/1/2004/NAD-8 dated: 16-09-2004 are reflected hereunder:

<u>S.No.</u>	<u>Sector</u>	<u>Subject</u>
1.	Agriculture	I. Production of newly emerging crop- Mushroom. II. Production of newly emerging crop- Cut and Dried Flower. III. Seed rate of crops other than those covered in the CCS
2.	Livestock	I. Estimates of consumption of roughage and concentrates including composition consumed by different categories of cattle
3.	Fishing sector	I. Estimates of production of fish and prawns from fish pond cultivation and subsistence fish II. Inputs in fishing sector
4.	Capital formation	I. Estimates of timber and round-wood used in construction II. Estimation of quantity of coal required for production of one lakh bricks.

Subsequently, the proposal was put before Screening Committee for technical clearance. The Screening Committee accepted the proposal to conduct the proposed type studies and placed a ceiling of Rupees seven lakhs for the proposal. In view of the financial ceiling imposed the studies were confined to four only, which are identified as under:

- I. Production of newly emerging crop- Cut and Dried Flower.
- II. Seed rate of crops other than those covered in the Cost of Cultivation Survey (CCS).
- III. Estimates of timber and round-wood used in construction
- IV. Estimation of quantity of coal required for production of one lakh bricks.

All these studies were launched in all districts of the state in selected villages / urban blocks. The present report pertains to the study “***SEED RATE OF CROPS OTHER THAN THOSE COVERED IN COST OF CULTIVATION SURVEY (CCS)***”

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ASSESSMENT OF QUANTITY OF SEEDS SOWN FOR THE CROPS OTHER THAN THOSE COVERED IN COST OF CULTIVATION SURVEY (CCS)

Background:

The contribution of Agriculture Sector to the Gross Domestic Product (GDP) is estimated in terms of Gross Value Added (GVA) using the production approach. The estimation of GVA involves evaluation of the products and by-products and ancillary activities at the price received by the producers and deducting there from the value of inputs used in the process of production at purchaser's price. For arriving at GVA from Agriculture, necessary deductions are made from the value of output on account intermediate consumption. One of the main such item in agriculture is the seed. Data on the seeds under different crops are available from the Cost of Cultivation Survey (CCS) organized by the State Agriculture Department for principal and some minor crops. These data are supplemented wherever necessary by data contained in the relevant Marketing Reports and other sources. Prices used for the evaluation of output are used to arrive at the value of seeds used as inputs. The crops, which have so far been covered in the Cost of Cultivation Surveys, are paddy, maize, wheat, saffron, rape and mustard. The

other crops, which contribute a sizeable quantum to the state domestic product and not covered under CCS, are barley, gram, moong, potato, linseed and fodder.

To set a strong and realistic base for “calculation/estimation of seed rates of crops Fodder, Moong, Barley, Potato, Linseed and Gram (the crops not covered in the CCS)” a survey was conducted in Jammu and Kashmir on the recommendations of National Statistical Commission as per the following plan.

Objective :-

To know the actual quantity of seeds being used as inputs per hectare of area so that reliable and realistic estimates are available for necessary deductions on account of intermediate consumption from the output estimates while building up SDP estimates of the state. To calculate the actual seed rate of crops not covered under CCS a state level survey was conducted in all the districts of Jammu and Kashmir except Doda, Leh and Kargil.

Sampling Design :

In order to cover all the desired crops in one go and to take care of the variations of seed rates that are in practice from area to area, the study was launched in 125 blocks of the state. The study was launched through Statistical Wings of the Block Development Offices. Five (5) villages were chosen at random from each Block, covering 10 farmers through hit and run method.

Schedule :

A simple schedule devised in accordance with the objectives of the study was devised and information obtained regarding the seed rate adopted by the farmers in respect of selected crops. The outline of the schedule is appended (See Annexure – A).

Staffing Pattern and Tabulation :

The field study was conducted by the staff of Block Development offices under the supervision by the offices of respective District Statistics and Evaluation Officers. The Directorate of Economics & Statistics devised the tabulation plan, Scrutinised and tabulated the data. The report was drafted in the Capital Formation unit, in the Directorate of Economics & Statistics under the supervision of consultant (State Income) DES.

RESULTS THROWN OUT BY THE STUDY

4060 households were brought under ambit of the seed rate survey in the state. 1150 households have the holding size of 1-10 Kanal and nominated as small farmers, 1402 form medium class holders with holding size 10-20 kanals and 1508 have been classified as big farmers having holding size 20 kanals and above. Large number of holders consisting of 552 farmers have been selected in Jammu district who are cultivating the crops for which seed rates were to be collected. Smallest number of 81 farmers have been selected in Pulwama district. The field staff of DSEO Pulwama were preoccupied in conducting certain evaluation studies, as such the study on seed rates was conducted in only two blocks of the district. 4060 farmers selected possess land of 97653 kanals and cultivable area measuring 81363 Kanals. These selected households have an average holding size of 23.755 Kanals and cultivable area form an average area of 19.17 Kanals. The average holding size of selected farmers of Kashmir Division is 16 Kanals, while for Jammu Division it is perceived as 31.50 Kanals. The area cultivated during the year 2005-06 by the selected farmers is calculated as 14.89 Kanals on an average for Kashmir Division, while as for Jammu Division, it is calculated at 23.44 Kanals. The cultivable area possessed by selected group of farmers in Kashmir Division is of the magnitude of 33154 Kanals, while as for Jammu Division the magnitude is observed as 48209 Kanals. District Poonch have the highest average holding size of 37.43 Kanals, whereas the smallest holding size has been observed in Kupwara District. For the land on

which the crops were cultivated by the selected farmers, District Kathua have been found as the largest district having average cultivable area of 25.88 Kanals, where as in District Kupwara the average cultivable area under the crop is 9.61 Kanals only.

The crop wise details for which the seed rates were collected is indicated as under:

1. Fodder :

There is no specified classification of the crop fodder, being sown in J&K. However Fodder like Oats, Maize for fodder, barseen are being cultivated in J&K. The seed rates for all the three species have been collected in clubbed manner, as the particular specie is grown in different areas as per terrain and Geographical conditions. As such the seed rates collected pertain to all the above specified three crops in a clubbed manner. Fodder is sown both in Kharief and Rabi seasons in different parts of the state. It is grown both on irrigated and unirrigated lands. So far as Kharief crop is concerned, fodder was sown by the selected farmers on an area of 10233 Kanals of which 2544 Kanals were irrigated land and 7689 Kanals as unirrigated land. In Kashmir Division, fodder was sown by the selected farmers on an area of 5345 Kanals while as for Jammu Division it was sown on an area of 4888 Kanals. The total seeds sown under Kharief were of the order of 48835 Kgs forming a seed rate of *5.14* Kgs per Kanal. For Kashmir division the seed rate of Kharief fodder was calculated as *7.05* Kgs per Kanal. While as for Jammu Division it was observed as *3.22* Kgs per Kanal only. The highest seed rate of *9.35* kgs per Kanal is observed in Anantnag District of Kashmir Division, while as the lowest seed rate of fodder (Kharief) is observed in Poonch District.

Fodder is grown as Rabi crop also in both Kashmir Division and Jammu Division. In Kashmir Division, it has been cultivated on an area of 6927 Kanals by the selected farmers of which 2061 Kanals were irrigated land and 4856 Kanals were unirrigated land. The seeds sown on the area were of the order of 57604 Kgs with an average of *7.61* kgs per Kanal, while as for Jammu Division fodder in Rabi season was cultivated on an area

of 7774 Kanals and the seeds sown were of the order of 34079kgs forming an average of 4.57 kgs per Kanal. For state as a whole, fodder in Rabi was cultivated on the land measuring 14701 Kanals utilising a seed of 91683kgs forming an average of 6.09 kgs per Kanal.

Taking together the Rabi and Kharief fodder crops, the average seed rate for J&K is observed as 5.61 kgs per Kanal. For Jammu it is calculated as 3.89 kgs per Kanal and for Kashmir Division it is calculated as 7.33 kgs per Kanal.

Table – (a)
Seed Rates (Fodder)

S.No.	Season	Jammu Region	Kashmir Region	Unit: Kg/Kanal
				Combined(J&K)
1	Kharief	3.22	7.05	5.14
2	Rabi	4.57	7.61	6.09
3	Combined	3.89	7.33	5.61

2. Moong:

Moong falls under the food group pulses and is sown as Kharief crop in both the divisions of Jammu and Kashmir. It is sown on an area of 4537 Kanals by the selected farmers in J&K, out of the total cultivable area of 81363 Kanals possessed by the sample selected households. A total quantity of 10525Kgs of seed is sown on the lands brought under moong crop forming an average of 2.22 Kgs per Kanal. It is sown on an area of 2546 Kanals by the selected farmers in Kashmir Division, consisting of 443.25 Kanals as irrigated land and 2103 Kanals as unirrigated land. To cultivate moong the selected farmers have used 6211 Kgs of seeds making an average of 2.27 kgs per Kanal for

Kashmir Division. The highest seed rate of *3.01* kgs per Kanal has been observed in Anantnag District and the lowest seed rate of *1.49* kgs per Kanal is observed in Kupwara District amongst the districts falling in Kashmir Division. The difference in the seed rates is presumably because of fertility factor which differs from area to area.

So far as Jammu Division is concerned, Moong is grown on an area of 1991 Kanals by the selected farmers constituting an area of 730 Kanals as irrigated and 1261 Kanals as unirrigated. The total quantity of seed sown by the selected farmers is to tone of 4314 Kgs making an average of *2.17* Kgs per Kanal. The district wise break-up of Jammu Division observes that seed rate varies a little from 2 to 2.5 Kgs/Kanal. The district wise seed rates of Moong as culled out from the schedules is as under:

Table – (b)
Seed Rate of Moong

Unit: Kgs/Kanal

S. No.	District	Seed Rate
1	Anantnag	3.01
2	Srinagar	2.07
3	Baramulla	2.28
4	Budgam	2.49
5	Pulwama	-
6	Kupwara	1.49
7	Jammu	1.95
8	Udhampur	2.22
9	Kathua	2.19
10	Poonch	2.51
11	Rajouri	2.00
12	Jammu Div.	2.17
13	Total J & K	2.22

3. Barley:

Barley is grown in Jammu Division particularly in the districts of Jammu, Udhampur and Kuthua in Kharief season. The results thrown out by the survey reveal that barley is grown by the selected house holds of Jammu Division on an area of 198.50 Kanals making a percentage of just 0.24% of the total cultivable area possessed by the sample house holds. It is perceived that barley is grown both on irrigated and unirrigated lands. While it is grown on an area of 129 Kanals of irrigated land, it is sown on 70 Kanals of unirrigated land by the selected sample house holds. To cultivate barley in Kharief season the selected farmers have used seed to the extent of 595.06 Kgs making an average seed rate of 2.86 Kgs per Kanal.

During Rabi Season barley is grown in both Kashmir and Jammu Divisions. However, the results of survey reveal that barley is grown on a negligible area of 155 Kanals by the selected farmers in Kashmir Division and is used as fodder for cattle. It is not grown as crop in Kashmir. To cultivate barley on 155 Kanals the selected farmers of Kashmir Have used seeds to the extent of 980.39 kgs forming a seed rate of 3.94 kgs per Kanal. The selected farmers of Jammu Division have sown barley (Rabi) on an area of 1905 Kanals, consisting of 391 Kanals (irrigated) and 1514 Kanals (un-irrigated) using seeds to the extent of 8848 kgs forming a seed rate of 4.57 kgs per Kanal. For the State as a whole, an area of 2060 Kanals was brought under barley (Rabi) consisting of 413 Kanals (irrigated) and 1647 Kanals (un-irrigated) by the selected sample house holds using a total quantity of 9828 kgs of seed forming a seed rate of 4.26 kgs per Kanal.

Taking together Rabi and Kharief crop (barley) the seed rate for the state has been worked out as 3.83 kgs per Kanal. For Jammu Division it has been worked out as 3.72 kgs per Kanal while as for Kashmir Division it is averaged as 3.94 kgs per Kanal. Season-wise and division-wise breakup of seed rate is indicated in the table given below:-

Table – (c)

Seed Rates of Barley

Unit: kgs/Kanal

Division	Kharief	Rabi	Combined
Kashmir	-	394	3.94
Jammu	2.86	4.57	3.72
Combined (J&K)	2.86	4.26	3.83

For more details see table No.: 6, 7 and 8 of Statistical portion of this report.

4. Potato:

The area brought under potato Kharief crop by the selected sample house holds in the State forms the magnitude of 4308.69 Kanals which is 5.30% of the total cultivable area possessed by the sample house holds. As against it, potato is sown on an area of 1475.24 kanals in Rabi which form 1.81% of the total cultivable area possessed by the sample house holds. Summing together the Kharief and Rabi crop, potato is sown on an area of 5783.93 Kanals forming a percentage of 7.12 of the total area. A total quantity of 254574.51 Kgs of seed was sown during the Kharief crops on the total area of 4303.69 Kanals forming an average seed rate of *59.17* kgs per Kanal. Seed rate in Jammu Division has been calculated as *63.63* kgs per Kanal while for Kashmir Division it is observed as *54.72* Kgs per Kanal. Highest seed rate of *101.14* kgs per kanal has been observed in Pulwama District, while a lowest seed rate *31.92* Kgs per Kanal has been observed in Anantnag District. As against Kharief crop seed rate of potato is observed as *67.73* kgs per Kanal for the State a bit higher than what is used in Kharief crop. During

Rabi crop a total quantity of 101746.93 kgs of seeds has been used on the land measuring 1475.24 Kanals brought into potato (Rabi crop) making an average of *67.73* Kgs per Kanal for the State. Seed rate in Jammu Division has been perceived as *72.31* kgs per Kanal while for Kashmir Division it is *63.14* kgs per Kanal. Highest seed rate of *102.38* kgs per Kanal is observed in Poonch District while as lowest seed rate of *54.02* kgs per Kanals observed in Jammu District. Summing together, the seed rate of Rabi and Kharief crops, the average seed rate has been observed at *63.45* kgs per Kanal for the State. It is observed as *67.97* kgs per Kanal for Jammu Division and *58.93* kgs per Kanal in Kashmir Division. The following table will depict the seed rate region wise:

Table – (d)

Seed Rate of Potato

Region	Kharief Crop	Rabi Crop	Unit: kgs/Kanal
			Average
Kashmir	54.72	63.14	58.93
Jammu	63.63	72.31	67.97
Combined	59.17	67.73	63.45

More details of seed rate and area brought under potato crop by the selected house holds is given in the tables 9,10 and 11 of the statistical portion of this report.

5. Linseed:

Linseed is sown in Rabi season only. It is sown on an area of 3180.40 Kanals by the sample selected house holds who possess total cultivable area of 81363 Kanals forming a percentage of 3.91. A total of 10751.48 kgs of linseed is utilised for the area brought under linseed crop making an average seed rate of *3.21* kgs per Kanal for the State. From the survey results, it is observed that linseed is grown more in Jammu Division as compared to Kashmir Division. An area of 2216.90 Kanals is brought under linseed production by the selected house holds in Jammu Division, while as it is sown on an area of 913.51 kanals only in Kashmir Division. An amount of 3343.30Kgs of seed is used by the farmers belonging to Kashmir Division making an average seed rate of *3.77* kg per Kanal while for Jammu Division total quantity of 7408.18kgs of seed is sown on an area of 2266.90 Kanals making an average seed rate of *2.65* kgs per Kanal. The following table will illustrate the region wise area brought under linseed by the selected farmers and the seed rates observed:-

Table – (e)
Seed Rate of Linseed

Region	Area brought under Linseed (in Kanals)	Total quantity of seeds sown (in kgs)	Average seed rate (in kgs/Kanal)
Kashmir region	913.50	3343.30	3.77
Jammu region	2266.90	7408.18	2.65
Combined	3180.40	10751.48	3.21

6. Gram:

From the results thrown out by the rates and ratios survey, it is observed that gram is cultivated in Jammu Division only and it is nowhere cultivated in Kashmir Division. It is presumably because of the seasonal and topographical difference that nature has bestowed to the State. An area of 676.30 Kanals is brought under gram by the selected sample house holds constituting an area of 112 Kanals (irrigated) and 564.30 kanals (unirrigated). A total quantity of 2285.79 kgs of seeds are utilized on the afore mentioned land brought under gram (Rabi crop) in Jammu Division. The average seed rate of 3.67 kgs per Kanal has been observed. Highest seed rate of 5 kgs/Kanal is observed in Poonch district while as lowest 2.83 kgs per Kanal is seen in Jammu district.

The following table will indicate the district wise seed rate of Gram in Jammu Division.

Table – (f)
Seed Rate of Gram

Unit: Kgs/Kanal

S. No.	District	Seed Rate
1	Jammu	2.83
2	Udhampur	3.49
3	Kathua	4.01
4	Poonch	5.00
5	Rajouri	3.00
6	Total J & K	3.67

For more details see table No : 13 of the Statistical portion of this report.

Table No. - 01

Holding Size and Cultivable Area of the Selected Sample House Holds

District	Number of Holdings				Holding size (Kanals)	Cultivable Area (Kanals)	Average Holding Size	Average Cultivable Area
	Small (1-10 Kanal)	Medium (10-20 Kanal)	Big (20 & above)	Total				
1	2	3	4	5	6	7	8	9
Anantnag	198	172	76	446	6204.5	5341	13.91	11.98
Srinagar	110	107	32	249	3528	3341	14.17	13.42
Baramulla	214	245	289	748	18059	15414	24.14	20.61
Budgam	142	149	75	366	5298	6640	14.48	18.14
Pulwama	32	20	29	81	1456	1265	17.98	15.62
Kupwara	54	60	6	120	1361	1153	11.34	9.61
Kashmir Div.	750	753	507	2010	35906.5	33154	16.00	14.89
Jammu	120	224	208	552	14849	13442	26.90	24.35
Udhampur	129	174	152	455	10481	9387	23.04	20.63
Kathua	88	117	242	447	13090	11570	29.28	25.88
Poonch	48	88	162	298	11155.5	6319	37.43	21.20
Rajouri	15	46	237	298	12171	7491	40.84	25.14
Jammu Div.	400	649	1001	2050	61746.5	48209	31.50	23.44
Total J & K	1150	1402	1508	4060	97653	81363	23.75	19.17

Table - (ii)

**ABSTRACT OF FINDINGS OF THE CASE STUDY - RATES AND
RATIOS IN JAMMU & KASHMIR (Cropwise / Divisionwise /
Seasonwise)**

Unit :- Kgs per
Kanal

S. No.	Crop	Seed Rates Kgs. Per Kanal					
		Division Kashmir		Division Jammu		Jammu & Kashmir	
		Rabi	Kharief	Rabi	Kharief	Rabi	Kharief
1	FODDER	7.05	7.61	3.22	4.57	5.14	6.09
2	MOONG	-	2.27	-	2.17	-	2.22
3	BARLEY	-	3.94	2.86	4.57	2.86	4.26
4	POTATO	54.72	63.14	72.31	67.97	59.17	67.73
5	LINSEED	3.77	-	2.65	-	3.21	-
6	GRAM	-	-	3.67	-	3.67	-

Table - (iii)

ABSTRACT OF FINDINGS OF THE CASE STUDY - RATES AND RATIOS IN JAMMU & KASHMIR (Cropwise / Divisionwise / Seasonwise)

Unit :- Quintals per
Hectre

S. No.	Crop	Seed Rates Quintals Per Hectre					
		Division Kashmir		Division Jammu		Jammu & Kashmir	
		Rabi	Kharief	Rabi	Kharief	Rabi	Kharief
1	FODDER	1.41	1.52	0.64	0.91	1.03	1.22
2	MOONG	-	0.45	-	0.43	-	0.44
3	BARLEY	-	0.79	0.57	0.91	0.57	0.85
4	POTATO	10.94	12.63	14.46	13.59	11.83	13.55
5	LINSEED	0.75	-	0.53	-	0.64	-
6	GRAM	-	-	0.73	-	0.73	-

Table - (iv)

ABSTRACT OF FINDINGS OF THE CASE STUDY - RATES AND RATIOS IN JAMMU & KASHMIR
(Districtwise / Cropwise)

Unit :- Kgs per Kanal

S. No.	District	Seed Rates of Crops (Kgs. Per Kanal)					
		FODDER	MOONG	BARLEY	POTATO	LINSEED	GRAM
1	Anantnag	10.06	3.01	7.28	43.55	3.66	-
2	Srinagar	4.50	2.07	2.88	42.24	4.43	-
3	Baramulla	7.37	2.28	2.27	57.98	4.70	-
4	Budgam	8.66	2.49	3.33	72.50	2.06	-
5	Pulwama	-	-	-	101.14	-	-
6	Kupwara	5.08	1.49	-	47.22	4.00	-
8	Jammu	3.94	1.95	3.70	54.02	3.00	2.83
9	Udhampur	4.98	2.22	3.55	56.95	3.88	3.49
10	Kathua	3.99	2.19	3.84	72.37	1.52	4.01
11	Poonch	3.39	2.51	5.08	87.79	2.10	5.00
12	Rajouri	3.16	2.00	4.20	64.18	2.75	3.00

Table - (v)

ABSTRACT OF FINDINGS OF THE CASE STUDY - RATES AND RATIOS IN JAMMU & KASHMIR (Districtwise / Cropwise)

Unit :- Quintals per
Hectre

S. No.	District	Seed Rates of Crops (Quintals Per Hectre)					
		FODDER	MOONG	BARLEY	POTATO	LINSEED	GRAM
1	Anantnag	2.01	0.60	1.46	8.71	0.73	-
2	Srinagar	0.90	0.41	0.58	8.45	0.89	-
3	Baramulla	1.47	0.46	0.45	11.60	0.94	-
4	Budgam	1.73	0.50	0.67	14.50	0.41	-
5	Pulwama	-	-	-	20.23	-	-
6	Kupwara	1.02	0.30	-	9.44	0.80	-
8	Jammu	0.79	0.39	0.74	10.80	0.60	0.57
9	Udhampur	1.00	0.44	0.71	11.39	0.78	0.70
10	Kathua	0.80	0.44	0.77	14.47	0.30	0.80
11	Poonch	0.68	0.50	1.02	17.56	0.42	1.00
12	Rajouri	0.63	0.40	0.84	12.84	0.55	0.60

Statistical Portion - III

Table No. - 01

Holding Size and Cultivable Area of the Selected Sample House Holds

District	Number of Holdings				Holding size (Kanals)	Cultivable Area (Kanals)	Average Holding Size	Average Cultivable Area
	Small (1-10 Kanal)	Medium (10-20 Kanal)	Big (20 & above)	Total				
1	2	3	4	5	6	7	8	9
Anantnag	198	172	76	446	6204.5	5341	13.91	11.98
Srinagar	110	107	32	249	3528	3341	14.17	13.42
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Budgam	142	149	75	366	5298	6640	14.48	18.14
Pulwama	32	20	29	81	1456	1265	17.98	15.62
Kupwara	54	60	6	120	1361	1153	11.34	9.61
Kashmir Div.	750	753	507	2010	35906.5	33154	16.00	14.89
Jammu	120	224	208	552	14849	13442	26.90	24.35
Udhampur	129	174	152	455	10481	9387	23.04	20.63
Kathua	88	117	242	447	13090	11570	29.28	25.88
Poonch	48	88	162	298	11155.5	6319	37.43	21.20
Rajouri	15	46	237	298	12171	7491	40.84	25.14
Jammu Div.	400	649	1001	2050	61746.5	48209	31.50	23.44
Total J & K	1150	1402	1508	4060	97653	81363	23.75	19.17

Table No. - 02
Seed Rate of Fodder - Kharief Crop

District	Area Irrigated (Kanals)	Area Un-Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	66.00	97.10	163.10	1524.99	9.35
Srinagar	70.50	894.50	965.00	4651.30	4.82
Baramulla	368.00	3211.00	3579.00	21724.53	6.07
Budgam	330.00	307.50	637.50	5080.88	7.97
Pulwama	-	-	-	-	-
Kupwara	-	-	-	-	-
Kashmir Div.	834.50	4510.10	5344.60	32981.70	7.05
Jammu	1074.50	1339.00	2413.50	7505.99	3.11
Udhampur	258.50	651.00	909.50	3165.06	3.48
Kathua	359.50	563.70	923.20	3415.84	3.70
Poonch	0.00	217.15	217.15	625.39	2.88
Rajouri	17.00	408.00	425.00	1241.00	2.92
Jammu Div.	1709.50	3178.85	4888.35	15953.28	3.22
Total J & K	2544.00	7688.95	10232.95	48934.98	5.14

Table No. - 03
Seed Rate of Fodder - Rabi Crop

District	Area Irrigated (Kanals)	Area Un-Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	606.10	800.80	1406.90	15138.24	10.76
Srinagar	633.50	746.00	1379.50	5766.31	4.18
Baramulla	26.00	2795.50	2831.50	24549.11	8.67
Budgam	795.50	492.45	1287.95	12042.33	9.35
Pulwama	-	-	-	-	-
Kupwara	-	21.25	21.25	107.95	5.08
Kashmir Div.	2061.10	4856.00	6927.10	57603.94	7.61
Jammu	1488.00	228.90	1716.90	8189.61	4.77
Udhampur	392.30	521.30	913.80	5930.56	6.49
Kathua	1268.90	304.15	1573.05	6732.65	4.28
Poonch	145.00	2056.85	2201.85	8587.22	3.90
Rajouri	974.00	394.50	1368.50	4639.22	3.39
Jammu Div.	4268.20	3505.70	7774.10	34079.26	4.57
Total J & K	6329.30	8361.70	14701.20	91683.20	6.09

Table No. - 04
Seed Rate of Fodder - Kharief / Rabi Crops

District	Seeds Sown Per Kanal for Kharief Crop (Kgs)	Seeds Sown Per Kanal for Rabi Crop (Kgs)	Average Seed Rate (Kilograms)
1	2	3	4
Anantnag	9.35	10.76	10.06
Srinagar	4.82	4.18	4.50
Baramulla	6.07	8.67	7.37
Budgam	7.97	9.35	8.66
Pulwama	-	-	-
Kupwara	-	5.08	5.08
Kashmir Div.	7.05	7.61	7.33
Jammu	3.11	4.77	3.94
Udhampur	3.48	6.49	4.98
Kathua	3.70	4.28	3.99
Poonch	2.88	3.90	3.39
Rajouri	2.92	3.39	3.16
Jammu Div.	3.22	4.57	3.89
Total J & K	5.14	6.09	5.61

Table No. - 05
Seed Rate of Moong - Kharief Crop

District	Area Irrigated (Kanals)	Area Un- Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	207.00	341.00	548.00	1649.48	3.01
Srinagar	161.75	93.72	255.47	528.82	2.07
Baramulla	23.00	1282.50	1305.50	2976.54	2.28
Budgam	51.50	353.55	405.05	1008.57	2.49
Pulwama	-	-	-	-	-
Kupwara	-	31.90	31.90	47.53	1.49
Kashmir Div.	443.25	2102.67	2545.92	6210.94	2.27
Jammu	335.00	189.90	524.90	1023.56	1.95
Udhampur	295.00	786.50	1081.50	2400.93	2.22
Kathua	48.00	128.60	176.60	386.75	2.19
Poonch	34.50	136.00	170.50	427.96	2.51
Rajouri	17.00	20.50	37.50	75.00	2.00
Jammu Div.	729.50	1261.50	1991.00	4314.20	2.17
Total J & K	1172.75	3364.17	4536.92	10525.14	2.22

Table No. - 06
Seed Rate of Barley - Kharief Crop

District	Area Irrigated (Kanals)	Area Un- Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	-	-	-	-	-
Srinagar	-	-	-	-	-
Baramulla	-	-	-	-	-
Budgam	-	-	-	-	-
Pulwama	-	-	-	-	-
Kupwara	-	-	-	-	-
Kashmir Div.	-	-	-	-	-
Jammu	11.00	31.00	42.00	133.14	3.17
Udhampur	105.00	36.50	141.50	425.92	3.01
Kathua	13.00	2.00	15.00	36.00	2.40
Poonch	-	-	-	-	-
Rajouri	-	-	-	-	-
Jammu Div.	129.00	69.50	198.50	595.06	2.86
Total J & K	129.00	69.50	198.50	595.06	2.86

Table No. - 07

Seed Rate of Barley - Rabi Crop

District	Area Irrigated (Kanals)	Area Un- Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	3.2	119.15	122.35	890.71	7.28
Srinagar	16	3	19	54.72	2.88
Baramulla	-	11	11	24.97	2.27
Budgam	3	-	3	9.99	3.33
Pulwama	-	-	-	-	-
Kupwara	-	-	-	-	-
Kashmir Div.	22.2	133.15	155.35	980.39	3.94
Jammu	81	481	562	2371.64	4.22
Udhampur	118	361.8	479.8	1962.38	4.09
Kathua	186	569.3	755.3	3987.98	5.28
Poonch	-	83	83	421.64	5.08
Rajouri	5.75	19	24.75	103.95	4.20
Jammu Div.	390.75	1514.1	1904.85	8847.59	4.57
Total J & K	412.95	1647.25	2060.2	9827.98	4.26

Table No. - 08
Seed Rate of Barley - Kharief / Rabi Crops

District	Seeds Sown Per Kanal for Kharief Crop (Kgs)	Seeds Sown Per Kanal for Rabi Crop (Kgs)	Average Seed Rate (Kilograms)
1	2	3	4
Anantnag	-	7.28	7.28
Srinagar	-	2.88	2.88
Baramulla	-	2.27	2.27
Budgam	-	3.33	3.33
Pulwama	-	-	-
Kupwara	-	-	-
Kashmir Div.	-	3.94	3.94
Jammu	3.17	4.22	3.70
Udhampur	3.01	4.09	3.55
Kathua	2.40	5.28	3.84
Poonch	-	5.08	5.08
Rajouri	-	4.20	4.20
Jammu Div.	2.86	4.57	3.72
Total J & K	2.86	4.26	3.83

Table No. - 09
Seed Rate of Potato - Kharief Crop

District	Area Irrigated (Kanals)	Area Un-Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	253.50	185.10	438.60	14000.11	31.92
Srinagar	184.60	218.50	403.10	13894.86	34.47
Baramulla	8.00	1271.00	1279.00	70447.32	55.08
Budgam	114.10	303.40	417.50	24419.58	58.49
Pulwama	-	700.00	700.00	70798.00	101.14
Kupwara	-	74.85	74.85	3534.42	47.22
Kashmir Div.	560.20	2752.85	3313.05	197094.29	54.72
Jammu	278.00	28.80	306.80	17653.27	-
Udhampur	162.50	238.10	400.60	19204.76	47.94
Kathua	104.30	33.59	137.89	9615.07	69.73
Poonch	-	150.35	150.35	11007.12	73.21
Rajouri	-	-	-	-	-
Jammu Div.	544.80	450.84	995.64	57480.22	63.63
Total J & K	1105.00	3203.69	4308.69	254574.51	59.17

Table No. - 10
Seed Rate of Potato - Rabi Crop

District	Area Irrigated (Kanals)	Area Un-Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	77.00	52.00	129.00	7118.22	55.18
Srinagar	-	1.00	1.00	50.00	50.00
Baramulla	-	42.00	42.00	2556.96	60.88
Budgam	92.75	20.00	112.75	9754.00	86.51
Pulwama	-	-	-	-	-
Kupwara	-	-	-	-	-
Kashmir Div.	169.75	115.00	284.75	19479.18	63.14
Jammu	217.20	18.40	235.60	12727.11	54.02
Udhampur	125.20	292.75	417.95	27572.16	65.97
Kathua	111.20	75.34	186.54	13992.37	75.01
Poonch	-	143.65	143.65	14706.89	102.38
Rajouri	69.30	137.45	206.75	13269.22	64.18
Jammu Div.	522.90	667.59	1190.49	82267.75	72.31
Total J & K	692.65	782.59	1475.24	101746.93	67.73

Table No. - 11
Seed Rate of Potato - Kharief / Rabi Crops

District	Seeds Sown Per Kanal for Kharief Crop (Kgs)	Seeds Sown Per Kanal for Rabi Crop (Kgs)	Average Seed Rate (Kilograms)
1	2	3	4
Anantnag	31.92	55.18	43.55
Srinagar	34.47	50.00	42.24
Baramulla	55.08	60.88	57.98
Budgam	58.49	86.51	72.50
Pulwama	101.14	-	101.14
Kupwara	47.22	-	47.22
Kashmir Div.	54.72	63.14	58.93
Jammu	-	54.02	54.02
Udhampur	47.94	65.97	56.95
Kathua	69.73	75.01	72.37
Poonch	73.21	102.38	87.79
Rajouri	-	64.18	64.18
Jammu Div.	63.63	72.31	67.97
Total J & K	59.17	67.73	63.45

Table No. - 12

Seed Rate of Linseed - Rabi Crop

District	Area Irrigated (Kanals)	Area Un-Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	472.00	375.50	847.50	3101.85	3.66
Srinagar	-	7.00	7.00	31.01	4.43
Baramulla	9.00	21.00	30.00	141.00	4.70
Budgam	1.00	23.00	24.00	49.44	2.06
Pulwama	-	-	-	-	-
Kupwara	1.00	4.00	5.00	20.00	4.00
Kashmir Div.	483.00	430.50	913.50	3343.30	3.77
Jammu	67.50	66.20	133.70	401.10	3.00
Udhampur	426.00	1126.00	1552.00	6021.76	3.88
Kathua	77.50	362.20	439.70	668.34	1.52
Poonch	-	111.00	111.00	233.10	2.10
Rajouri	24.00	6.50	30.50	83.88	2.75
Jammu Div.	595.00	1671.90	2266.90	7408.18	2.65
Total J & K	1078.00	2102.40	3180.40	10751.48	3.21

Table No. - 13

Seed Rate of Gram - Rabi Crop

District	Area Irrigated (Kanals)	Area Un- Irrigated (Kanals)	Total (Kanals)	Quantity of Seed sown (Kgs)	Seeds Sown Per Kanal (Kgs)
1	2	3	4	5	6
Anantnag	-	-	-	-	-
Srinagar	-	-	-	-	-
Baramulla	-	-	-	-	-
Budgam	-	-	-	-	-
Pulwama	-	-	-	-	-
Kupwara	-	-	-	-	-
Kashmir Div.	-	-	-	-	-
Jammu	14.50	257.70	272.20	770.33	2.83
Udhampur	54.00	103.10	157.10	548.28	3.49
Kathua	40.50	177.50	218.00	874.18	4.01
Poonch	-	3.00	3.00	15.00	5.00
Rajouri	3.00	23.00	26.00	78.00	3.00
Jammu Div.	112.00	564.30	676.30	2285.79	3.67
Total J & K	112.00	564.30	676.30	2285.79	3.67

ANNEXURE - A
SCHEDULE

For Farmer Under Seed Rate Survey

Identification :

1. District _____ Teshil _____ Block _____
2. Village _____ Village Census Code _____
3. Name of the Farmer _____
4. Category to which belong (Big/medium/small) _____
5. Holding size _____ (Kanals)
6. Cultivable area _____ (Kanals)
7. Crop year _____
8. Area under Kharif crops _____ (Kanals)

Details of area under Kharif and Seeds sown

Crop	Irrigated area (kanals)	Un-irrigated area (kanals)	Total area (kanals)	Quantity of seeds sowed (kgs.)
a. Linseed				
b. Fodder (specify)				
c. Moong				
d. Barley				
e. Gram				
f. Potato				

9. Area under Rabi crops _____ (Kanals)

Details of area under Rabi and Sees sown

Crop	Irrigated area (kanals)	Un-irrigated area (kanals)	Total area (kanals)	Quantity of seeds sown (kgs.)
a. Linseed				
b. Fodder (specify)				
c. Moong				
d. Barley				
e. Gram				
f. Potato				

Signature of Investigator

Abstract of Findings - II