

THE NATIONAL SAMPLE SURVEY

EIGHTEENTH ROUND : JULY 1962—JUNE 1963

NUMBER 112

TABLES WITH NOTES ON
THE RESULTS OF THE LAND UTILISATION
SURVEY AND CROP-CUTTING EXPERIMENTS



Issued by

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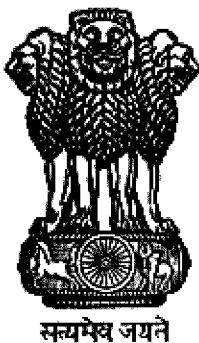
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3. The design of the survey was prepared by the Indian Statistical Institute.
4. The primary data were collected by the Directorate of the National Sample Survey, Government of India, in all the states except West Bengal where the Indian Statistical Institute collected the relevant data.

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THE RESULTS OF THE LAND UTILISATION SURVEY AND CROP-CUTTING EXPERIMENTS

*The report entitled "Tables with Notes on The Results of the Land Utilisation Survey and Crop-cutting Experiments, Eighteenth Round, July 1962—June 1963" was prepared by the Indian Statistical Institute, Calcutta. The views contained in the report are not necessarily those of the Government of India."**

CHAPTER I

INTRODUCTION

1.1. *Introduction* : The land utilisation survey and crop-cutting experiments were continued in the gap period between the 17th and 18th rounds and in the early part of the 18th round of the National Sample Survey to obtain an estimate of production of the seven major cereal crops (rice, jowar, bajra, ragi, maize, wheat and barley) taken together at the all-India level for the agricultural year, 1962-63.

1.2. *Period of survey* : The survey started in September 1962 and ended in June 1963.

1.3. *Geographical coverage* : The survey was carried out in the whole of rural India excluding Andaman and Nicobar Islands, Laccadive, Minicoy and Amin-divi Islands, Ladakh district of Jammu and Kashmir, the North-East Frontier Agency, Mao, Ukhru and Tamenlong sub-divisions of Manipur and the Union Territories of Goa, Daman, Diu and Pondichery.

1.4. *Number of villages surveyed* : In each of the seasons—autumn, winter and spring—4236 villages were planned to be surveyed for area survey and crop-cutting experiments were planned to be conducted in 1412 villages in each season. In the summer season area survey and crop-cutting experiments were planned in 1412 villages. Crop-cutting experiments were conducted on paddy, jowar, bajra, ragi, maize, wheat and barley.

*The draft report (No. D. 125) was submitted to the Government of India in April 1964.

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1.5. *Method of collection of data :* Data on land utilisation were collected by direct physical observation of the utilisation in sample plots. Data on yield were collected by harvesting a circular area of radius 4' located at random in a subplot. The harvesting of crop in a sample cut of radius 4' was done in two stages—first in a circle of radius 2'3" and then in the annular portion. The yield of crop from the circle of radius 2'3" from each sample cut was used for driage experiments to obtain the driage factors for obtaining the production of dry crop.

1.6. *Scope of the report :* This note gives the estimates of gross area and production of the major cereal crops at all-India level. The sampling design and estimation procedure adopted are given in Appendix 1.

CHAPTER 2

CONCEPTS AND DEFINITIONS

2.1. Some of the important concepts and definitions used in the survey are described below.

2.2. *Sample village* : A revenue village corresponding to the sample census village was taken as the sample village for land utilisation survey and crop-cutting experiments. Generally, the revenue village and census village were identical, but in some cases the two were not identical. When the selected census village was a part of a revenue village, the whole of the revenue village was surveyed. If on the other hand, the census village was formed by more than one revenue village, one of the revenue villages was chosen at random with equal probability for the purpose of the survey.

2.3. *Season* : For each of the crops grown in a village, appropriate season was assigned on the basis of the period of harvesting of the crop in the village in a normal year. The months of harvesting in a normal year corresponding to the different seasons are given below :

season of the crop	normal months of harvesting
(1)	(2)
Autumn	August to October
Winter	November to January
Spring	February to April
Summer	May and June

Note : July was taken to correspond to summer or autumn depending on the crop and region.

When harvesting of a crop in a normal year was spread over two seasons, the crop was assigned to that season which covered the greater part of the harvesting period.

2.4. *'Proper time' of visit for land utilisation survey and crop-cutting experiments* : The land utilisation survey was to be carried out in a village in proper time with respect to cereal and pulse crops for each of the seasons autumn, winter and spring and summer. The proper time for area survey for a season was the period when the sowing of all the crops of that season had been completed but harvesting had not yet started and the crops were unmistakably identifiable. Crop-cutting experiments were to be carried out when the crop was ripe and ready for harvesting in the selected fields.

National Sample Survey

2.5. *Plot* : For the purpose of the enquiry, a plot was defined as a distinct patch of land generally having a major survey number.

2.6. *Pure crop and mixed crops* : When only one crop was grown in a patch of land, it was considered as growing pure crop. A patch of land which was growing two or more crops in intermixture was taken to be under mixed crop. In case of mixed crops, the components might be sown (or harvested) at the same time or at different times. Sometimes the components might be at different stages of growth (e.g. one of the components might be harvestable while others might be just sprouting up from the ground). When a crop was grown in an orchard, it was considered to be under mixed crop. Also crops grown in alternate strips, each of width less than 8' were treated as mixed crops.

2.7. *Sub-plot* : In a plot, a distinct patch growing a crop or a particular mixed crop was treated as a sub-plot. A plot was considered to have as many sub-plots as there were different patches growing the crops singly or in mixture.

2.8. *Ail or bund* : A plot is demarcated generally by a strip of raised land commonly known as *ails* or *bunds*. Besides these, there may be *ails* inside the plots. Some of the inside *ails* will be more or less of a permanent nature having almost the same height as boundary *ails*. These inside *ails* were treated in the same manner as boundary *ails*.

2.9. *Gross area under a crop* : If a patch of land was under a mixed crop, then the total area under the mixed crop was taken to be the gross area under each of the components of the mixed crop. When a crop was grown pure in a patch of land, the gross area under the crop was the same as the area under the crop.

CHAPTER 3

SUMMARY RESULTS

3.1. The estimates of production and gross area for each of the seven crops—paddy, jowar, bajra, ragi, maize, wheat and barley at all-India level are given in this chapter. The figures of production and yield rate for paddy crop relate to clean rice. For converting production of dry paddy to that of clean rice, the factor 0.662 has been used.

3.2. Tables (3.1) and (3.2) give the sample size. Table (3.1) gives the number of villages surveyed for land utilisation survey and crop-cutting experiments and Table (3.2) gives the number of crop-cutting experiments conducted on each of the seven major cereal crops.

TABLE (3.1): NUMBER OF VILLAGES ALLOTTED AND SURVEYED FOR LAND UTILISATION SURVEY AND CROP-CUTTING EXPERIMENTS

All India

season	number of villages for land utilisation survey					number of villages for crop-cutting experiments				
	total allotted	surveyed			total	total allotted	surveyed*			total
		sub-sample 1	sub-sample 2				sub-sample 1	sub-sample 2		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		(10)
autumn	4236	2005	2038	4043	1412	666	623	1289		
winter	4236	2068	2081	4139	1412	689	670	1359		
spring	4236	2066	2090	4146	1412	685	680	1345		
summer	1412	678	628	1306	1412	678	607	1285		

* Including villages surveyed, but not reporting any specified cereal crop.

TABLE (3.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON EACH OF THE MAJOR CEREAL CROPS

All India

crop	number of experiments conducted															
	autumn				winter				spring				summer			
	sub-sample 1	sub-sample 2	total		sub-sample 1	sub-sample 2	total		sub-sample 1	sub-sample 2	total		sub-sample 1	sub-sample 2	total	
(1)	(2)	(3)	(4)		(5)	(6)	(7)		(8)	(9)	(10)		(11)	(12)	(13)	
paddy	1318	1331	2649		1637	1624	3661		303	396	699		161	150	301	
jowar	196	162	358		1238	1310	2548		404	408	812		126	128	254	
bajra	885	960	1845		265	250	515		12	6	18		14	12	26	
ragi	225	237	462		120	182	302		59	106	165		22	9	31	
maize	1026	1080	2116		—	12	12		—	12	12		8	4	12	
wheat	—	—	—		—	—	—		1751	1861	3612		49	9	58	
barley	—	—	—		—	—	—		748	735	1483		9	—	9	
all crops	3650	3779	7429		3460	3578	7038		3277	3524	6801		379	312	691	
	—	—	—		—	—	—		—	—	—		10766	11193	21959	

Results of the Land Utilisation Survey and Crop-cutting Experiments

3.3. Tables (3.3) and (3.4) give respectively the estimates of production and gross area under each cereal crop for all India by sub-samples.

TABLE (3.3) : ESTIMATES OF PRODUCTION (000 TONNES)
OF MAJOR CEREAL CROPS FOR 1962-63

All India

crop	estimates (000 tonnes) of production		
	sub-sample 1	sub-sample 2	combined
(1)	(2)	(3)	(4)
rice	34067	34988	34531
jowar	11624	10255	10889
bajra	3213	4433	3826
ragi	2155	1765	1959
maize	5983	6610	6246
wheat	13244	12964	13104
barley	3228	3135	3181
total	73414	74050	73736

TABLE (3.4) : ESTIMATES OF GROSS AREA
(000 ACRES) UNDER EACH MAJOR CEREAL
CROP FOR 1962-63

All India

crop	estimates (000 acres) of gross area		
	sub-sample 1	sub-sample 2	combined
(1)	(2)	(3)	(4)
paddy	90317	92655	91437
jowar	52300	52649	52425
bajra	30104	30918	30511
ragi	6618	6346	6484
maize	12967	15010	13987
wheat	42847	42655	42701
barley	11379	14312	12845
total	246432	254345	250390

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3.4. Table (3.6) gives the composition of gross area under each of the seven crops at all-India level.

TABLE (3.5): COMPOSITION OF GROSS AREA UNDER MAJOR CEREAL CROPS AUTUMN, WINTER, SPRING AND SUMMER SEASONS 1962-63

All-India sub-samples combined				
crop	estimated gross area (000 acres)	percentage area under		
		pure crop	mixed crop	total
(1)	(2)	(3)	(4)	(5)
paddy	91437	93.64	6.36	100.00
jowar	52425	26.69	74.31	100.00
bajra	30511	24.65	75.35	100.00
ragi	6484	41.97	58.03	100.00
maize	13987	53.32	46.68	100.00
wheat	42701	34.36	65.63	100.00
barley	12845	16.04	84.06	100.00
total	260390	58.33	41.66	100.00

3.5. Comparison of NSS estimates of production and gross area for 1962-63 and 1961-62 : The NSS estimates of production and gross area for the years 1962-63 and 1961-62 are given in Table (3.6) below.

TABLE (3.6): NSS ESTIMATES OF PRODUCTION, GROSS AREA AND GROSS YIELD RATE OF CROPS FOR 1961-62 AND 1962-63

All India						
crop	production (000 tonnes)		gross area (000 acres)		gross yield rate (lbs/acre)	
	1961-62	1962-63	1961-62	1962-63	1961-62	1962-63
(1)	(2)	(3)	(4)	(5)	(6)	(7)
rice	42891	34531	103394	91437	904	832
jowar	9415	10889	54082	52425	376	458
bajra	3957	3826	32227	30511	265	276
ragi	2321	1959	6661	6484	772	666
maize	6132	6246	14940	13987	904	996
wheat	15691	13104	48033	42701	728	677
barley	8632	8181	14044	12845	595	546
total	84179	73736	273381	260390	x	x

N.B. The estimates for 1961-62 do not include summer crops. The estimate for summer crops for 1962-63, as can be seen from Appendix Table (1) is 857 (000) tonnes of production and 1737 (000) acres of gross area.

Results of the Land Utilisation Survey and Crop-cutting Experiments

3.6. Comparison of NSS estimates and non-NSS official figures of production for 1962-63 and 1961-62. The NSS estimates of production and the corresponding non-NSS official figures for the years 1962-63 and 1961-62 are given below.

TABLE (3.7) : NSS ESTIMATES AND NON-NSS OFFICIAL FIGURES OF PRODUCTION
IN (000) TONNES FOR 1961-62 AND 1962-63

All India

crop	NSS			non-NSS official†		
	1961-62	1962-63	percentage* difference	1961-62	1962-63	percentage** difference
(1)	(2)	(3)	(4)	(5)	(6)	(7)
rice	42831	34531	-19.38	34725	31636	-8.32
jowar	9415	10889	+15.66	7741	9621	+24.29
bajra	3957	3826	-3.31	3554	3892	+9.51
ragi	2321	1959	-16.60	1874	1891	+0.91
maize	6132	6246	+1.86	4269	4578	+7.24
wheat	15691	13104	-16.49	12039	10829	-10.06
barley	3832	3181	-16.99	3162	2423	-28.13
total	84179	73736	-13.12	67354	66070	-3.39

N.B. The NSS estimates for 1961-62 do not include summer crops.

$$\text{* col. (4)} = \frac{\text{col. (3)} - \text{col. (2)}}{\text{col. (2)}} \times 100$$

$$\text{** col. (7)} = \frac{\text{col. (6)} - \text{col. (5)}}{\text{col. (5)}} \times 100$$

† Partially revised figures.

Source : Agricultural Situation in India.

CHAPTER 4

STATISTICAL TABLES

4.1. The various statistical tables relating to the survey are given in this chapter. The season-wise estimates of production and gross area at all-India level by sub-samples are given in Table (1). The number of sample villages planned and surveyed for land utilisation survey and crop-cutting experiments are given by states and seasons. The number of crop-cutting experiments conducted on each crop separately for pure crop and mixed crop by seasons at state level is also given.

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Results of the Land Utilisation Survey and Crop-cutting Experiments

TABLE (1): SEASONAL ESTIMATES OF PRODUCTION (000 TONNES) AND GROSS AREA (000 ACRES) UNDER EACH OF THE MAJOR CEREAL CROPS: 1962-63.

All India

season	estimates of production (000 tonnes)			estimates of gross area (000 acres)		
	sub-sample 1	sub-sample 2	combined	sub-sample 1	sub-sample 2	combined
	(1)	(2)	(3)	(4)	(5)	(6)
1. rice*						
autumn	7514	8148	7833	23859	23084	23474
winter	22335	23776	23056	58758	62930	60844
spring	3760	2404	3078	6961	5401	6176
summer	468	660	564	749	1140	943
total	34067	34988	34531	90317	92555	91437
2. jowar						
autumn	735	1305	1020	5905	6482	6192
winter	7201	6210	6706	32330	29861	31086
spring	3628	2452	2990	13786	15606	14696
summer	60	288	174	179	700	441
total	11624	10255	10880	62200	52649	52425
3. bajra						
autumn	2622	3831	3228	25096	25527	25310
winter	558	600	580	4791	5303	5047
spring	1	1	1	166	22	94
summer	32	1	17	52	66	60
total	3213	4433	3826	30104	30918	30511
4. ragi						
autumn	992	557	775	2954	2137	2547
winter	834	968	901	3018	3633	3326
spring	326	229	276	627	530	578
summer	4	11	7	19	46	33
total	2155	1765	1959	6618	6346	6484

* The production of rice relates to clean rice.

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TABLE (1) (Contd.): SEASONAL ESTIMATES OF PRODUCTION (000 TONNES) AND GROSS AREA (000 ACRES) UNDER EACH OF THE MAJOR CEREAL CROPS: 1962-63.

All India

season	estimates of production (000 tonnes)			estimates of gross area (000 acres)		
	sub- sample 1	sub- sample 2	combined	sub- sample 1	sub- sample 2	combined
	(1)	(2)	(3)	(4)	(5)	(6)
5. maize						
autumn	5914	6411	6163	12766	14727	13740
winter	8	6	7	36	49	43
spring	61	46	53	172	124	148
summer	—	47	23	3	110	56
total	5983	6510	6246	12987	15010	13987
6. wheat						
autumn	—	—	—	—	5	2
winter	10	50	30	42	258	160
spring	13129	12800	13009	42488	42221	42355
summer	106	24	65	317	71	194
total	13244	12964	13104	42847	42555	42701
7. barley						
autumn	—	—	—	—	—	—
winter	—	—	—	—	—	—
spring	3214	3135	3174	11300	14311	12835
summer	14	—	7	19	1	10
total	3228	3135	3181	11379	14312	12845
8. all crops						
autumn	17777	20252	19019	70569	71982	71265
winter	30946	31610	31270	98975	102034	100606
spring	24007	21157	22581	75550	78215	76882
summer	684	1031	857	1338	2134	1737
total	73414	74050	73736	246432	254345	250390

TABLE (2) : NUMBER OF SAMPLE VILLAGES PLANNED AND NUMBER SURVEYED FOR LAND UTILISATION SURVEY IN EACH SEASON AND STATE

state	number of sample villages planned per season*	autumn			winter			spring			summer		
		sub-sample 1	sub-sample 2	total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Rajasthan	192	77	95	172	83	95	178	93	95	188	31	32	63
Jammu and Kashmir	180	85	88	173	87	187	174	90	90	180	27	17	44
Punjab	180	88	90	178	88	90	178	89	90	179	29	22	51
Delhi	12	6	6	12	6	6	12	6	6	12	2	2	4
Himachal Pradesh	12	5	5	10	4	4	8	6	5	11	—	—	—
Uttar Pradesh	523	261	262	523	266	264	520	256	261	517	78	71	149
15 Madhya Pradesh	360	166	170	336	177	171	348	176	177	353	59	58	117
Bihar	384	180	188	377	188	191	379	187	191	378	63	62	125
Orissa	180	89	86	175	90	86	176	88	87	175	30	30	60
West Bengal	276	130	136	266	134	136	270	129	136	265	43	44	87
Assam	180	70	77	156	86	87	173	78	84	162	26	27	53
Manipur	96	24	24	48	48	48	96	44	45	89	16	15	31
Tripura	96	43	44	87	45	47	92	41	47	88	14	16	30
Andhra Pradesh	336	165	165	330	166	167	333	165	166	331	56	55	111
Madras	312	156	156	312	156	156	312	156	156	312	52	49	101
Kerala	180	90	90	180	88	90	178	88	90	178	30	30	60
Gujarat	180	86	88	174	88	88	176	89	89	178	30	30	60
Maharashtra	348	167	166	333	170	166	336	173	173	346	58	56	94
Mysore	204	99	102	201	98	102	200	102	102	204	34	32	66
total	4236	2005	2038	4043	2058	2081	4139	2056	2090	4146	678	628	1306

*In summer season land utilisation survey was planned only in one-third of the villages.

TABLE (3) : NUMBER OF SAMPLE VILLAGES PLANNED AND NUMBER SURVEYED FOR CROP-CUTTING EXPERIMENTS FOR EACH SEASON BY STATES

state	number of sample villages planned per season	autumn			winter			spring			summer			
		sub-sample 1	sub-sample 2	total										
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Rajasthan	64	24	28	52	28	32	60	29	32	61	31	32	63	
Jammu and Kashmir	60	26	28	54	29	29	58	30	29	59	27	15	42	
Punjab	60	30	28	58	29	30	59	29	24	53	29	17	46	
Delhi	4	2	2	4	2	2	4	2	2	4	2	2	4	
Himachal Pradesh	4	2	1	3	2	2	4	2	—	2	—	—	—	
Uttar Pradesh	176	85	83	168	85	85	170	83	77	160	78	68	146	
16	Madhya Pradesh	120	55	55	110	59	62	111	58	56	114	59	55	114
	Bihar	128	63	62	124	64	64	128	64	62	126	63	62	126
	Orissa	60	29	27	56	30	30	60	29	30	59	30	30	60
	West Bengal	92	43	31	74	44	41	85	42	44	86	43	44	87
	Assam	60	26	16	42	27	26	53	26	25	51	26	24	50
	Manipur	32	8	7	15	16	14	30	16	14	30	16	15	31
	Tripura	32	15	14	29	15	16	31	16	16	31	14	16	30
	Andhra Pradesh	112	56	52	108	56	62	108	56	53	109	56	54	110
	Madrasa	104	52	51	103	52	52	104	52	51	103	52	48	100
	Kerala	60	30	28	58	30	29	59	30	28	58	30	30	60
	Gujarat	60	30	28	58	30	29	59	30	29	59	30	29	59
	Maharashtra	116	57	50	107	58	51	109	58	54	112	58	55	93
	Mysore	68	34	34	68	33	34	67	34	34	68	34	31	66
	total	1412	666	623	1289	689	670	1359	685	660	1345	678	607	1286

TABLE (4.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON PADDY BY SEASONS AND STATES

Sub-sample 1

state	autumn			winter			spring			summer			all seasons		
	pure	mixed	total	pure	mixed	total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	2	—	2	2	—	2	—	—	—	—	—	—	5	—	5
Jammu and Kashmir	81	—	81	—	—	—	—	—	—	—	—	—	81	—	81
Punjab	46	—	46	—	—	—	—	—	—	—	—	—	46	—	46
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	188	46	234	160	—	160	—	—	—	—	—	—	348	46	394
Madhya Pradesh	140	10	150	87	4	91	—	—	—	—	—	—	227	14	241
Bihar	48	3	49	328	24	352	—	—	—	—	—	—	374	27	401
Orissa	29	11	40	144	—	144	—	—	—	—	—	—	173	11	184
West Bengal	20	—	20	241	—	241	—	—	—	—	—	—	261	—	261
Assam	23	6	29	103	—	103	—	—	—	—	—	—	126	6	132
Manipur	1	3	4	71	—	71	—	—	—	—	—	—	72	2	75
Tripura	73	10	83	79	—	79	—	—	—	6	—	6	159	10	169
Andhra Pradesh	71	—	71	200	2	202	69	—	59	37	—	37	367	2	369
Madras	115	—	115	128	—	128	206	—	206	66	—	66	514	—	514
Kerala	112	2	114	147	—	147	18	—	18	11	—	11	288	2	290
Gujarat	35	27	62	—	—	—	—	—	—	—	—	—	35	27	62
Maharashtra	171	15	186	32	1	33	6	—	6	—	—	—	209	16	226
Mysore	26	6	32	72	1	73	14	—	14	42	—	42	184	7	161
all-India total	1179	139	1318	1805	32	1837	303	—	303	161	—	161	9436	171	3609

TABLE (4.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON PADDY BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons		
	pure	mixed	total	pure	mixed	total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	5	—	5	—	—	—	—	—	—	—	—	—	5	—	5
Jammu and Kashmir	84	—	84	—	—	—	—	—	—	—	—	—	84	—	84
Punjab	61	—	61	—	—	—	—	—	—	—	—	—	61	—	61
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	228	36	264	184	2	186	—	—	—	—	—	—	412	38	450
Madhya Pradesh	123	14	137	115	—	115	—	—	—	—	—	—	238	14	252
Bihar	46	2	48	323	9	332	—	—	—	—	—	—	369	11	380
Orissa	58	—	58	153	—	153	—	—	—	—	—	—	211	—	212
West Bengal	42	1	43	218	—	218	—	—	—	—	—	—	260	—	261
Assam	21	—	21	111	—	111	—	—	—	—	—	—	132	—	132
Manipur	13	—	13	69	—	69	—	—	—	—	—	—	82	—	82
Tripura	61	18	69	69	—	69	—	—	—	6	—	6	126	18	144
Andhra Pradesh	61	8	59	194	—	194	91	—	91	46	—	46	282	8	290
Madras	111	—	111	148	4	152	215	—	215	77	—	77	551	4	555
Kerala	125	2	127	135	—	135	67	—	67	—	—	—	317	2	319
Gujarat	37	21	58	—	—	—	—	—	—	—	—	—	37	21	58
Maharashtra	120	22	142	30	—	30	6	—	6	—	—	—	166	22	176
Mysore	39	2	41	59	—	59	27	—	27	20	1	21	145	3	148
all-India total	1205	126	1331	1808	16	1824	396	—	396	149	1	150	3668	143	3701

TABLE (4.3): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON PADDY BY SEASONS AND STATES

sub-samples 1 and 2 combined.

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	7	—	7	3	—	3	—	—	—	—	—	—	—	10	—	10
Jammu and Kashmir	165	—	165	—	—	—	—	—	—	—	—	—	—	165	—	165
Punjab	97	—	97	—	—	—	—	—	—	—	—	—	—	97	—	97
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	416	82	498	344	2	346	—	—	—	—	—	—	—	760	84	844
Madhya Pradesh	263	24	287	202	4	206	—	—	—	—	—	—	—	465	28	493
Bihar	92	6	97	601	33	684	—	—	—	—	—	—	—	743	38	781
Orissa	87	11	98	297	1	298	—	—	—	—	—	—	—	784	12	796
West Bengal	62	1	63	469	—	469	—	—	—	—	—	—	—	521	1	522
Assam	44	6	50	214	—	214	—	—	—	—	—	—	—	258	6	264
Manipur	14	3	17	140	—	140	—	—	—	—	—	—	—	164	3	157
Tripura	124	28	152	148	—	148	—	—	—	12	—	12	—	284	28	312
Andhra Pradesh	122	8	130	394	2	396	150	—	150	83	—	83	—	749	10	759
Madras	226	—	226	286	4	290	421	—	421	132	—	132	—	1065	4	1069
Kerala	217	4	241	232	—	232	75	—	75	11	—	11	—	605	4	609
Gujarat	72	48	120	—	—	—	—	—	—	—	—	—	—	72	48	120
Maharashtra	291	37	328	62	1	63	12	—	12	—	—	—	—	365	38	403
Mysore	66	8	73	131	1	132	41	—	41	62	1	63	—	299	10	309
all-India total	2384	265	2649	3613	48	3661	699	—	699	300	1	301	—	6996	314	7310

TABLE (5.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON JOWAR BY SEASONS AND STATES

sub-sample 1

state	autumn			winter			spring			summer			all seasons			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rajasthan	—	9	9	—	70	70	—	—	—	—	—	—	—	79	79	
Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Punjab	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
Delhi	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	2	190	192
Uttar Pradesh	—	—	—	3	190	192	—	—	—	—	—	—	—	24	288	312
03	Madhya Pradesh	—	6	6	24	282	306	—	—	—	—	—	—	6	282	312
Bihar	—	—	—	5	2	6	—	—	—	—	—	—	—	8	8	8
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	22	82	104	20	78	98	6	22	28	28	—	28	76	182	258	
Madras	20	9	29	36	75	111	29	2	31	66	32	98	151	118	269	
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	54	66	120
Gujarat	4	4	8	18	60	78	32	2	34	—	—	—	166	374	530	
Maharashtra	—	2	2	34	266	300	122	106	228	—	—	—	—	—	—	—
Mysore	—	38	38	—	67	67	39	44	83	—	—	—	39	149	188	
all-India total	46	160	196	140	1098	1238	228	176	404	94	32	126	508	1456	1964	

TABLE (6.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON JOWAR BY SEASONS AND STATES

sub-sample 2

state (1)	autumn			winter			spring			summer			all seasons		
	pure (2)	mixed (3)	total (4)	pure (5)	mixed (6)	total (7)	pure (8)	mixed (9)	total (10)	pure (11)	mixed (12)	total (13)	pure (14)	mixed (15)	total (16)
Rajasthan	—	6	6	28	84	112	—	—	—	—	—	—	28	90	118
Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Punjab	8	—	8	—	—	—	—	—	—	—	—	—	8	—	8
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	—	—	2	204	206	—	—	—	—	—	—	2	204	206
Madhya Pradesh	—	—	—	20	236	256	—	—	—	—	—	—	20	240	260
Bihar	—	—	—	2	6	7	—	—	—	—	—	—	2	5	7
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	14	90	104	38	104	142	20	58	78	24	—	—	96	252	348
Madras	2	—	2	38	118	156	8	—	8	86	14	100	134	132	266
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	76	40	116
Gujarat	4	4	8	36	24	60	36	12	48	—	—	—	157	332	489
Maharashtra	—	2	2	22	263	275	136	77	213	—	—	—	—	—	—
Mysoore	2	30	32	10	86	96	8	60	58	2	2	4	22	168	190
all-India total	30	192	162	196	1114	1310	207	201	408	112	16	128	545	1463	2008

TABLE (5.3): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON JOWAR BY SEASONS AND STATES

sub-samples 1 and 2 combined.

state	autumn			winter			spring			summer			all seasons			
	pure	mixed	total	pure	mixed	total	pure	mixed	total	pure	mixed	total	pure	mixed	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rajasthan	—	15	15	28	154	182	—	—	—	—	—	—	28	169	197	
Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Punjab	—	8	8	—	—	—	—	—	—	—	—	—	—	8	—	
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	—	—	—	4	394	398	—	—	—	—	—	—	—	4	394	398
22	Madhya Pradesh	—	6	6	44	518	562	—	—	—	—	—	—	44	523	572
Bihar	—	—	—	8	7	15	—	—	—	—	—	—	—	8	7	15
Orissa	—	—	—	—	8	8	—	—	—	—	—	—	—	—	8	8
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	36	172	208	68	182	240	26	80	106	52	—	52	172	434	606	
Madras	22	9	31	74	193	267	37	2	39	152	46	198	285	250	535	
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gujarat	8	8	16	54	84	138	68	14	82	—	—	—	130	106	236	
Maharashtra	—	4	4	56	519	575	257	183	440	—	—	—	313	706	1019	
Mysore	2	63	70	10	153	163	47	94	141	2	2	4	61	317	378	
all-India total	76	282	358	336	2212	2548	436	377	812	206	48	254	1063	2919	3972	

TABLE (6.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BAJRA BY SEASONS AND STATES

sub-sample 1

state	autumn			winter			spring			summer			all seasons		
	pure	mixed	total	pure	mixed	total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	40	84	124	—	—	—	—	—	—	—	—	—	40	84	124
Jammu and Kashmir	6	32	38	—	—	—	—	—	—	—	—	—	6	32	38
Punjab	42	8	50	—	—	—	—	—	—	—	—	—	42	8	50
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	72	72	—	—	136	136	—	—	—	—	—	—	208	208
Madhya Pradesh	8	24	32	—	—	—	—	—	—	—	—	—	8	24	32
Bihar	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Orissa	6	4	10	—	—	—	—	—	—	—	—	—	6	4	10
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	84	75	159	—	—	8	8	—	—	—	—	—	84	81	165
Madras	26	46	72	—	4	49	53	—	—	—	—	—	38	109	147
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	44	122	166
Gujarat	40	118	158	—	4	4	4	—	—	—	—	—	44	122	166
Maharashtra	46	92	138	—	4	32	36	—	—	—	—	—	50	124	174
Mysore	—	32	32	—	30	30	—	—	—	—	—	—	—	62	62
all-India total	298	587	885	8	257	265	6	6	12	6	8	14	318	858	1176

TABLE (6.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BAJRA BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons		
	pure	mixed	total	pure	mixed	total									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	27	79	106	—	12	12	—	—	—	—	—	—	27	91	118
Jammu and Kashmir	12	—	12	—	—	—	—	—	—	—	—	—	12	—	12
Punjab	37	64	101	—	—	—	—	—	—	—	—	—	37	64	101
Delhi	—	4	4	—	—	—	—	—	—	—	—	—	—	4	4
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	4	93	96	2	102	104	—	—	—	—	—	—	6	194	200
Madhya Pradesh	20	26	46	6	10	16	—	—	—	—	—	—	26	36	62
Bihar	—	—	—	—	4	4	—	—	—	—	—	—	—	4	4
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	88	68	156	—	2	2	—	—	—	—	—	—	88	70	158
Madrasa	30	80	110	8	40	48	—	4	2	—	2	6	46	124	170
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	78	72	150	—	8	8	—	—	—	—	—	—	84	80	164
Maharashtra	28	103	129	—	28	28	—	—	—	—	—	—	28	131	157
Mysoore	6	44	50	2	26	28	—	—	—	—	—	—	8	70	78
all-India total	338	432	960	18	232	250	4	2	6	10	2	12	360	868	1228

Geary's Sampling Percentages

TABLE (6.3) : NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BAJRA BY SEASONS AND STATES

sub-samples 1 and 2 combined

State	autumn						winter						spring			summer			all seasons		
	pure			mixed		total	pure			mixed		total	pure			mixed		total	pure		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(14)	(15)	(16)		
Rajasthan	87	163	230	—	—	12	12	—	—	—	—	—	—	—	—	—	67	176	242		
Jammu and Kashmir	18	32	50	—	—	—	—	—	—	—	—	—	—	—	—	—	18	32	50		
Punjab	79	72	151	—	—	—	—	—	—	—	—	—	—	—	—	—	79	72	151		
Delhi	—	4	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4		
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Uttar Pradesh	4	164	168	—	2	238	240	—	—	—	—	—	—	—	—	—	6	402	408		
Madhya Pradesh	28	50	78	—	6	10	16	—	—	—	—	—	—	—	—	—	34	60	94		
Bihar	—	—	—	—	1	4	4	—	—	—	—	—	—	—	—	—	—	4	4		
Orissa	6	4	10	—	—	—	—	—	—	—	—	—	—	—	—	—	6	4	10		
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Andhra Pradesh	172	143	315	—	8	8	8	—	—	—	—	—	—	—	—	—	172	161	323		
Madras	56	126	182	—	12	69	101	—	10	8	18	—	6	10	16	—	84	233	317		
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Gujarat	118	190	308	—	12	12	12	—	—	—	—	—	10	—	10	—	128	202	330		
Maharashtra	72	195	267	—	6	60	64	—	—	—	—	—	—	—	—	—	76	256	331		
Mysore	6	76	82	—	2	56	58	—	—	—	—	—	—	—	—	—	8	132	140		
all India total	626	1219	1845	26	489	515	10	8	18	16	10	26	678	1726	2404						

TABLE (7.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON RAGI BY SEASONS AND STATES

sub-sample 1

state	autumn			winter			spring			summer			all seasons			
	pure	mixed	total	pure	mixed	total										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rejasthan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Punjab	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	7	34	41	—	—	—	—	—	—	—	—	—	—	7	34	41
Madhya Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Bihar	25	16	41	—	—	—	—	—	—	—	—	—	—	25	16	41
Orissa	2	8	10	—	—	—	—	—	—	—	—	—	—	2	8	10
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Andhra Pradesh	30	3	33	10	6	16	16	13	29	—	—	—	—	56	22	78
Madras	47	9	56	23	17	40	28	2	30	15	2	17	113	30	143	
Kerala	1	—	1	—	—	—	—	—	—	—	—	—	—	1	—	
Gujarat	4	—	4	—	—	—	—	—	—	—	—	—	—	4	—	
Maharashtra	1	1	2	7	—	7	—	—	—	—	—	—	—	8	1	9
Mysore	17	20	37	8	43	51	—	—	—	5	—	6	30	63	93	
all-India total	134	91	225	61	69	120	44	16	69	20	2	22	249	177	426	

TABLE (7.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON RAGI BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons		
	(2)	(3)	(4)	(6)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jammu & Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Punjab	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	32	32	—	—	—	—	—	—	—	—	—	—	32	32
M2	Madhya Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bihar	31	19	50	—	—	—	—	—	—	—	—	—	31	19	50
Orissa	10	3	13	—	—	—	—	—	—	—	—	—	—	13	7
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	25	5	30	20	3	23	46	5	50	—	—	—	90	13	103
Madras	45	6	61	25	16	41	60	6	56	—	—	—	120	28	167
Kerala	—	12	12	—	—	—	—	—	—	—	—	—	—	12	12
Gujarat	—	—	—	17	10	27	—	—	—	—	—	—	—	17	10
Maharashtra	—	6	6	6	6	6	—	—	—	—	—	—	—	6	12
Mysore	16	27	43	13	65	78	—	—	—	—	—	—	—	29	92
all-India total	127	110	237	84	98	182	95	11	106	9	—	9	315	219	534

TABLE (7.3): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON RAGI BY SEASONS AND STATES

sub-samples 1 and 2 combined

state	autumn			winter			spring			summer			all seasons			
	pure	mixed	total	pure	mixed	total	pure	mixed	total	pure	mixed	total	pure	mixed	total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rajasthan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Jammu and Kashmir	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Punjab	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	7	66	73	—	—	—	—	—	—	—	—	—	—	7	66	73
28	Madhya Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bihar	66	36	91	—	—	—	—	—	—	—	—	—	—	66	36	91
Orissa	12	11	23	—	—	—	—	—	—	—	—	—	—	18	18	36
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	65	8	63	30	9	39	61	18	79	—	—	—	—	146	35	181
Madras	92	15	107	48	33	81	78	8	86	24	2	26	242	58	300	
Kerala	1	12	13	—	—	—	—	—	—	—	—	—	—	1	12	13
Gujarat	4	—	4	17	10	27	—	—	—	—	—	—	—	21	10	31
Maharashtra	1	7	8	13	—	13	—	—	—	—	—	—	—	14	7	21
Mysore	33	47	80	21	108	129	—	—	—	5	—	5	—	59	155	214
all-India total	261	201	462	135	167	302	139	26	165	39	2	31	—	564	396	960

TABLE (8.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON MAIZE BY SEASONS AND STATES

sub-sample 1

state (1)	autumn			winter			spring			summer			all seasons		
	pure (2)	mixed (3)	total (4)	pure (5)	mixed (6)	total (7)	pure (8)	mixed (9)	total (10)	pure (11)	mixed (12)	total (13)	pure (14)	mixed (15)	total (16)
Rajasthan	56	70	126	—	—	—	—	—	—	—	—	—	56	70	126
Jammu and Kashmir	134	8	142	—	—	—	—	—	—	—	—	—	134	8	142
Punjab	99	18	117	—	—	—	—	—	—	—	—	—	99	18	117
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	22	120	142
Uttar Pradesh	22	120	142	—	—	—	—	—	—	—	—	—	77	90	167
Madhya Pradesh	77	90	167	—	—	—	—	—	—	—	—	—	116	134	250
Bihar	116	134	250	—	—	—	—	—	—	—	—	—	—	—	—
Orissa	6	8	14	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	12	—	12	—	—	—	—	—	—	—	—	—	12	—	12
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	6	18	24	—	—	—	—	—	—	—	—	—	6	18	24
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	10	22	32
Gujarat	10	22	32	—	—	—	—	—	—	—	—	—	—	—	—
Maharashtra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
All-India total	638	488	1026	—	—	—	—	—	—	—	—	—	6	2	8
													544	490	1034

TABLE (8.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON MAIZE BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	64	94	158	—	—	—	—	—	—	—	—	—	—	64	94	158
Jammu and Kashmir	130	12	142	—	—	—	—	—	—	—	—	—	—	130	12	142
Punjab	65	6	71	—	—	—	—	—	—	—	—	—	—	65	6	71
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	12	—	12	—	—	—	—	—	—	—	—	—	—	12	—	12
Uttar Pradesh	26	176	202	—	—	—	—	—	—	—	—	—	—	26	176	202
30	Madhya Pradesh	96	118	214	—	—	—	—	—	—	—	—	—	96	118	214
Bihar	42	143	185	—	—	—	—	—	—	—	—	—	—	42	143	185
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	8	—	8	—	—	—	—	—	—	—	—	—	—	8	—	8
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	6	8	14	—	—	—	—	—	—	—	—	—	—	6	8	14
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	—	5	5	—	—	—	—	—	—	—	—	—	—	4	5	5
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	16	26	42	10	2	12	—	—	—	—	—	—	—	26	28	54
Maharaashtra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mysore	—	—	—	—	—	—	—	—	—	—	4	—	4	4	—	4
all-India total	476	614	1089	10	2	12	4	8	12	4	—	4	493	624	1117	

TABLE (8.3): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON MAIZE BY SEASONS AND STATES

sub-sample 1 and 2 combined

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	120	164	284	—	—	—	—	1	1	—	—	—	—	120	164	284
Jammu and Kashmir	264	20	284	—	—	—	—	—	—	—	—	—	—	264	20	284
Punjab	164	24	188	—	—	—	—	—	—	—	—	—	—	164	24	188
Delhi	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Himachal Pradesh	12	—	12	—	—	—	—	1	1	—	—	—	—	12	—	12
Uttar Pradesh	48	296	344	—	—	—	—	—	—	—	—	—	—	48	296	344
Madhya Pradesh	173	208	381	—	—	—	—	—	—	—	—	—	—	173	208	381
Bihar	158	277	435	—	—	—	—	—	—	—	—	—	—	158	277	435
Orissa	14	8	22	—	—	—	—	—	—	—	—	—	—	14	8	22
West Bengal	8	—	8	—	—	—	—	—	—	—	—	—	—	8	—	8
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	18	8	26	—	—	—	—	—	—	—	—	—	—	18	8	26
Tripura	—	5	5	—	—	—	—	—	—	—	—	—	—	—	5	5
Andhra Pradesh	6	40	46	—	—	—	—	—	—	—	—	—	—	10	48	58
Madras	2	4	6	—	—	—	—	—	—	—	—	—	—	6	6	14
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	26	48	74	—	—	—	—	—	—	—	—	—	—	36	50	86
Mahareshtra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mysoore	—	—	—	—	—	—	—	—	—	—	—	—	—	4	4	4
all-India total	1013	1102	2115	10	2	12	4	8	12	10	2	12	1037	1114	2151	

TABLE (9.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON WHEAT BY SEASONS AND STATES

sub-sample 1

states (1)	autumn			winter			spring			summer			all seasons		
	pure (2)	mixed (3)	total (4)	pure (5)	mixed (6)	total (7)	pure (8)	mixed (9)	total (10)	pure (11)	mixed (12)	total (13)	pure (14)	mixed (15)	total (16)
Rajasthan	—	—	—	—	—	—	46	88	134	—	—	—	46	88	134
Jammu and Kashmir	—	—	—	—	—	—	31	52	83	34	—	34	65	52	117
Punjab	—	—	—	—	—	—	39	71	110	—	—	—	39	71	110
Delhi	—	—	—	—	—	—	6	—	6	—	—	—	5	—	6
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	—	—	—	—	—	24	606	630	3	12	15	27	618	645
ES 53	Madhya Pradesh	—	—	—	—	—	113	167	280	—	—	—	113	167	280
Bihar	—	—	—	—	—	—	45	194	239	—	—	—	45	194	239
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	12	12	—	—	—	—	12	12
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	—	—	—	—	—	—	67	22	79	—	—	—	57	22	79
Maharashtra	—	—	—	—	—	—	90	61	151	—	—	—	90	61	151
Mysore	—	—	—	—	—	—	2	26	28	—	—	—	2	26	28
all-India total	—	—	—	—	—	—	452	1299	1751	37	12	49	489	1311	1800

TABLE (9.2): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON WHEAT BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	—	—	—	—	—	—	71	82	153	—	—	—	71	82	153	
Jammu and Kashmir	—	—	—	—	—	—	33	12	45	—	—	—	36	12	48	
Punjab	—	—	—	—	—	—	56	126	182	—	—	—	56	126	182	
Delhi	—	—	—	—	—	—	1	20	21	—	—	—	1	20	21	
Himachal Pradesh	[—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	[—	—	—	—	—	32	662	694	—	—	—	38	602	700	
33	Madhya Pradesh	—	—	—	—	—	—	97	202	299	—	—	—	97	202	299
	Bihar	—	—	—	—	—	—	47	208	265	—	—	—	47	208	265
Orissa	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	
West Bengal	—	—	—	—	—	—	12	9	21	—	—	—	12	9	21	
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Andhra Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gujarat	—	—	—	—	—	—	—	58	10	68	—	—	—	58	10	68
Maharashtra	—	—	—	—	—	—	—	77	34	111	—	—	—	77	34	111
Mysore	—	—	—	—	—	—	—	1	4	5	—	—	—	1	4	5
all-India total	—	—	—	—	—	—	492	1369	1861	9	9	9	501	1369	1870	

TABLE (9.3): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON WHEAT BY SEASONS AND STATES

sub-samples 1 and 2 combined

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	—	—	—	—	—	—	—	117	170	287	—	—	—	117	170	287
Jammu and Kashmir	—	—	—	—	—	—	—	64	64	128	37	—	37	101	64	165
Punjab	—	—	—	—	—	—	—	96	197	292	—	—	—	96	197	292
Delhi	—	—	—	—	—	—	—	6	20	26	—	—	—	6	20	26
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	—	—	—	—	—	—	56	1268	1324	9	12	21	65	1280	1345
34	Madhya Pradesh	—	—	—	—	—	—	210	369	579	—	—	—	210	369	579
Bihar	—	—	—	—	—	—	—	92	402	494	—	—	—	92	402	494
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	12	21	33	—	—	—	12	21	33
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	—	—	—	—	—	—	—	6	—	6	—	—	—	6	—	6
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	—	—	—	—	—	—	—	116	32	147	—	—	—	116	32	147
Maharashtra	—	—	—	—	—	—	—	167	95	262	—	—	—	167	95	262
Mysore	—	—	—	—	—	—	—	3	30	33	—	—	—	3	30	33
all-India total	—	—	—	—	—	—	—	944	2668	3612	46	12	58	990	2680	3670

TABLE (10.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BARLEY BY SEASONS AND STATES

sub-sample 1

state	autumn			winter			spring			summer			all seasons			
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rajasthan	—	—	—	—	—	—	11	57	68	—	—	—	11	57	68	
Jammu and Kashmir	—	—	—	—	—	—	1	6	7	—	—	—	7	6	13	
Punjab	—	—	—	—	—	—	1	8	9	—	—	—	1	8	9	
Delhi	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	17	440	457	
Uttar Pradesh	—	—	—	—	—	—	14	440	454	—	—	—	19	28	47	
35	Madhya Pradesh	—	—	—	—	—	19	23	47	—	—	—	36	116	152	
Bihar	—	—	—	—	—	—	36	116	152	—	—	—	—	—	—	
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Andhra Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Gujarat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Maharashtra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
all-India total	—	—	—	—	—	—	—	86	663	748	9	—	9	94	663	757

TABLE (10.2) : NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BARLEY BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons			
	pure	mixed	total	pure	mixed	total										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	
Rajasthan	—	—	—	—	—	—	28	42	70	—	—	—	28	42	70	
Jammu and Kashmir	—	—	—	—	—	—	6	4	10	—	—	—	6	4	10	
Punjab	—	—	—	—	—	—	—	8	12	20	—	—	—	8	12	20
Delhi	—	—	—	—	—	—	—	2	2	2	—	—	—	2	2	2
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uttar Pradesh	—	—	—	—	—	—	—	3	360	363	—	—	—	3	360	363
Madhya Pradesh	—	—	—	—	—	—	—	7	46	53	—	—	—	7	46	53
Bihar	—	—	—	—	—	—	—	25	148	173	—	—	—	25	148	173
Orissa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
West Bengal	—	—	—	—	—	—	—	11	24	35	—	—	—	11	24	35
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	—	—	—	—	—	—	—	2	—	2	—	—	—	2	—	2
Maharashtra	—	—	—	—	—	—	—	1	12	12	—	—	—	1	12	12
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
all-India total	—	—	—	—	—	—	95	640	735	—	—	—	95	640	735	—

National Sample Survey

TABLE (10.3) : NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON BARLEY BY SEASONS AND STATES

sub-samples 1 and 2 combined

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	—	—	—	—	—	—	39	99	138	—	—	—	39	99	138	
Jammu and Kashmir	—	—	—	—	—	—	7	10	17	6	—	—	13	10	23	
Punjab	—	—	—	—	—	—	9	20	29	—	—	—	9	20	29	
Delhi	—	—	—	—	—	—	1	2	3	—	—	—	1	2	3	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	—	—	—	—	—	—	22	790	812	3	—	—	23	790	815	
37	Madhya Pradesh	—	—	—	—	—	—	26	74	100	—	—	—	26	74	100
Bihar	—	—	—	—	—	—	67	284	325	—	—	—	61	264	325	
Orissa	—	—	—	—	—	—	—	12	26	38	—	—	—	12	26	38
West Bengal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Assam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Manipur	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tripura	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Andhra Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madras	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerala	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gujarat	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Maharashtra	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mysore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
all-India total	—	—	—	—	—	—	—	180	1303	1483	9	—	9	189	1303	1492

TABLE (11.1): NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON ALL MAJOR CEREAL CROPS BY SEASONS AND STATES

sub-sample 1

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	98	163	261	—	70	73	57	146	202	—	—	—	158	378	536	
Jammu and Kashmir	221	40	261	—	—	—	32	68	90	40	—	40	293	98	391	
Punjab	187	26	213	—	—	—	40	79	119	—	—	—	227	106	332	
Delhi	—	—	—	—	—	—	6	—	6	—	—	—	6	—	6	
Himachal Pradesh	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uttar Pradesh	217	272	489	162	326	488	38	1046	1084	6	12	18	423	1656	2079	
MP	Medhya Pradesh	225	130	355	111	286	397	132	195	327	—	—	—	468	611	1079
Bihar	187	153	340	324	26	360	81	310	391	—	—	—	602	489	1091	
Orissa	42	31	74	147	11	158	—	—	—	—	—	—	190	42	232	
West Bengal	20	—	20	241	—	241	1	14	15	—	—	—	262	14	276	
Assam	23	6	29	103	—	103	—	—	—	—	—	—	126	6	132	
Manipur	13	3	16	71	—	71	—	—	—	—	—	—	84	3	87	
Tripura	73	10	83	79	—	79	—	—	—	6	—	6	158	10	168	
Andhra Pradesh	213	173	386	230	93	922	81	35	116	65	—	65	589	300	889	
Madras	208	69	277	201	141	342	269	10	279	144	44	188	822	264	1086	
Kerala	113	2	115	147	—	147	18	—	18	11	—	11	289	2	291	
Gujarat	93	171	264	18	64	83	90	30	120	4	—	4	205	265	470	
Maharashtra	218	110	328	77	298	375	218	167	385	—	—	—	613	676	1088	
Mysoore	43	96	139	80	142	222	55	70	125	47	—	47	225	308	533	
all-India total	2195	1455	3650	2004	1456	3460	1118	2159	3277	323	56	379	5640	5126	10766	

All-India Sample Survey

TABLE (11.2) : NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON ALL MAJOR CEREAL CROPS BY SEASONS AND STATES

sub-sample 2

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	96	179	275	—	96	124	—	99	124	223	—	—	—	223	399	622
Jammu and Kashmir	226	12	238	—	—	—	—	39	16	55	3	—	3	268	28	296
Punjab	153	70	223	—	—	—	—	64	138	202	—	—	—	217	203	426
Delhi	8	4	12	—	—	—	—	1	22	23	—	—	—	9	26	36
Himachal Pradesh	12	—	12	—	—	—	—	—	—	—	—	—	—	12	—	12
Uttar Pradesh	258	336	594	186	308	496	—	40	1012	1052	6	—	6	492	1656	2148
Madhya Pradesh	239	158	397	141	246	387	—	104	252	356	—	—	—	484	656	1140
Bihar	119	164	283	325	18	343	—	72	358	428	—	—	—	516	538	1054
Orissa	76	3	79	156	5	161	—	1	—	1	—	—	—	233	8	241
West Bengal	50	1	61	218	—	218	—	23	33	58	—	—	—	291	34	325
Assam	21	—	21	111	—	111	—	—	—	—	—	—	—	132	—	132
Manipur	19	8	27	69	—	69	—	—	—	—	—	—	—	88	8	96
Tripura	51	23	74	69	—	69	—	—	—	—	6	—	6	126	23	149
Andhra Pradesh	178	193	371	252	109	361	—	166	71	237	70	—	70	666	373	1039
Madras	190	90	280	219	178	397	—	277	8	285	176	16	192	862	292	1154
Kerala	125	14	139	136	—	136	—	67	—	57	—	—	—	317	14	331
Gujarat	125	123	268	63	44	107	—	96	22	118	6	—	6	330	189	489
Maharashtra	146	133	279	58	281	339	—	218	123	341	—	—	—	422	537	959
Mysore	63	103	166	84	177	281	—	36	64	90	26	3	29	209	337	646
all-India total	2165	1614	3779	2110	1462	3578	1293	8231	8524	293	19	312	5867	6326	11193	

TABLE (11.3) : NUMBER OF CROP-CUTTING EXPERIMENTS CONDUCTED ON ALL MAJOR CEREAL CROPS BY SEASONS AND STATES

sub-samples 1 and 2 combined

state	autumn			winter			spring			summer			all seasons			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Rajasthan	104	342	536	—	31	166	197	166	289	425	—	—	43	381	777	1168
Jammu and Kashmir	447	52	499	—	—	—	—	71	74	145	43	—	43	561	126	687
Punjab	340	96	436	—	—	—	—	104	217	321	—	—	—	444	313	757
Delhi	8	4	12	—	—	—	—	7	22	29	—	—	—	15	26	41
Himachal Pradesh	12	—	12	—	—	—	—	78	2058	2136	12	12	24	915	3312	4227
Uttar Pradesh	476	608	1083	360	634	984	—	236	447	683	—	—	—	952	1267	2219
MP	Madhya Pradesh	464	288	752	252	432	784	163	666	819	—	—	—	1118	1027	2145
Bihar	306	317	623	659	44	703	—	—	—	—	—	—	—	423	50	473
Orissa	119	34	153	303	16	319	—	1	—	1	—	—	—	553	48	601
West Bengal	70	1	71	459	—	459	24	47	71	—	—	—	—	258	6	264
Assam	44	6	50	214	—	214	—	—	—	—	—	—	—	172	11	183
Manipur	32	11	43	140	—	140	—	—	—	—	—	—	—	—	—	—
Tripura	124	33	157	148	—	148	—	—	—	—	12	—	12	284	33	317
Andhra Pradesh	391	366	757	482	201	683	247	106	353	135	—	135	1255	673	1928	—
Madras	398	159	657	420	319	739	646	18	564	320	60	380	1684	665	2240	—
Kerala	238	16	254	282	—	282	76	—	75	11	—	11	—	606	16	622
Gujarat	228	294	622	81	108	189	186	52	238	10	—	10	—	506	454	959
Maharashtra	364	243	607	136	579	714	436	290	726	—	—	—	—	935	1112	2047
Mysore	106	199	305	164	319	483	91	124	215	73	3	76	—	434	645	1079
all-India total	4360	3069	7429	4120	2918	7038	2411	4390	6801	616	75	691	11607	10453	21969	—

APPENDIX 1

SAMPLING DESIGN AND ESTIMATION PROCEDURE

1. The sample design was a stratified two-stage one for the land utilisation survey, villages being the first-stage units and clusters of plots*, the second-stage units. For the crop yield survey, the design was a four-stage one with villages, clusters of plots, sub-plots** growing specified crops and circular cuts as the first-, second-, third- and fourth-stage units respectively. The first-stage units for the crop yield survey were a sub-sample of those chosen for the land utilisation survey.

2. Within a State, contiguous tehsils or parts of contiguous tehsils fairly homogeneous with respect to population density and crop-pattern were grouped together to form compact strata as far as possible such that the sum of the sizes of the villages in each stratum was exactly equal, the size being 1951/1961 census population of the village rounded off to the next higher multiple of 1000. In a few strata which cut across regions and/or NSS state-blocks, each compact section within a region and NSS state-block was called a sub-stratum. In some of these cases, the strata were not geographically compact. In the whole of India 353 strata were formed.

3. The allocation of the total sample size to the various states was done on a joint consideration of the rural population, area under food crops and the investigator strength in the central NSS blocks of the States. The allocation was modified to ensure a minimum sample size, for the central sample of 360 villages in each State and about 200 sample villages in each of the Union Territories Manipur and Tripura which participated in this round of the NSS. The allocations were rounded off to 24 or multiples of 24 to facilitate having 4 sub-samples of 6 villages each per stratum. During the agricultural year 1962-63, only sample villages belonging to sub-samples 1 and 2 were taken up for crop survey.

4. The frame used for selection was the list of villages as per the 1951 census except for Jammu and Kashmir and the Union Territories where it was the 1961 census list of villages and the areas belonging to old Travancore-Cochin in Kerala where it was the 1957 list of villages. Within each stratum the tehsils were arranged in a serpentine order and four independent interpenetrating sub-samples of 12 villages each were selected circular systematically with probability proportional to size (which is the 1951/1961 census population of the village rounded off to the next higher multiple of 1000). In each sub-sample of a stratum the 6 villages with odd

* A plot is defined as a distinct patch of land having a major survey number.

** A sub-plot is defined as a contiguous patch of land within a plot having a particular type of utilisation. A plot may consist one or more sub-plots.

National Sample Survey

orders of selection formed the Central Sample and the remaining 6 villages formed the State sample.

5. The land utilisation survey was conducted in autumn, winter and spring seasons in all the 6 villages in sub-samples 1 and 2 of each stratum and in villages 3 and 6 only of sub-samples 1 and 2 of each stratum in summer season. The crop-cutting experiments were conducted in each season only in villages 3 and 6 of sub-samples 1 and 2, of each stratum.

6. In sample villages meant only for land utilisation survey a circular systematic sample of 4 clusters of 5 plots each and in sample villages meant for both land utilisation survey and crop-cutting experiments a circular systematic sample of 6 clusters of 10 plots each were selected per village. This selection procedure was adopted where cadastral maps for the villages were available and in the case of villages where village maps were not available but a list of plots was available. The sample clusters were selected through the basic plots (equal in number to the number of clusters to be selected), selected circular systematically with equal probability. If the number of plots in the village was less than 20 (for a village where only land-utilisation survey was to be conducted) or less than 60 (for a village where crop-yield survey also was to be conducted) then all the plots in the village were completely enumerated. If neither the cadastral map nor the list of plots was available, a circular systematic sample of 4 or 6 households was selected from a sample village according as it was meant only for land utilisation survey or for both land utilisation survey and crop-cutting experiments and all the plots possessed by the selected households and situated within a radius of 5 miles of the sample village were surveyed. If the number of households in the village was less than 4 or 6 as the case may be all the households were taken up for the survey. The same set of sample clusters or plots possessed by same set of households were surveyed for all the seasons.

7. In each season six sub-plots were selected circular systematically from all the sub-plots in the sample plots surveyed for land utilisation with probability proportional to the gross area under the specified cereal crops after arranging the sub-plots in a specified order. From a selected sub-plot, yield data were collected from one circular cut selected at random (per crop) if any of the following crops were grown in it—paddy, ragi, wheat (grown pure) or barley (grown pure) and from two cuts selected at random (per crop) if any of the following crops were grown in it—jowar, bajra, wheat (mixed), maize or barley (mixed). If the number of sub-plots having the specified cereal crops in the frame in a village was less than 6, all these sub-plots were taken up for crop-cutting experiments. Selection of sub-plots for crop-cutting experiments was done afresh in each season.

8. *Estimation procedure :*

8.1. *Notation :*

s : subscript for *s*-th stratum/sub-stratum.

i : subscript for *i*-th sample village/selected part of village.

Results of the Land Utilisation Survey and Crop-cutting Experiments

- k : number of strata/sub-strata in the state.
- v : number of sample villages selected in the stratum and the sub-sample for the season.
- Z : sum of the sizes (used for selection) of the villages per stratum.
- z : size (used for selection) of the village.
- r : adjustment ratio for revenue village selection/selection of part of the village*.
- N : highest survey number (adjusted)**/highest sampling serial number of plots (adjusted)**
- H : total number of households in the village.
- n : number of clusters/households selected.
- c : cluster size (in terms of number of plots).
- a : area under a particular crop.
- y : yield rate for a particular crop.

8.2. The estimates of area and yield rates for each crop were obtained separately for each crop season and for each sub-sample for crop grown 'pure' and 'mixed' separately. The estimate of crop production was obtained as a product of the estimate of the crop area (based on all sample villages where land utilisation survey was conducted including crop-cutting villages) and the estimate of yield rate (obtained from all sample villages where crop-cutting experiments were conducted).

8.3. *Acreage estimate* : An estimate of the gross area (separately for 'pure' and 'mixed') under a particular crop in a particular season for a given sub-sample in a state is given by

$$\hat{A} = \sum_{s=1}^k \frac{Z}{v} \sum_{i=1}^{v_s} \frac{r_{si}}{z_{si}} \frac{N'_{si}}{n_{si}} a_{si}$$

* r = 1 when the surveyed revenue village coincides with the sampled census village and the whole of it was surveyed.

r = The number of areal divisions/hamlet groups formed in the village if an areal division or hamlet group was selected for survey.

r = The number of revenue villages which are wholly contained in the sampled census village in case the surveyed revenue village was selected from among them.

r = 1/number of census villages wholly contained in the surveyed revenue village, when the sampled census village was one of them.

** For selection of sample plots, the highest survey number or sampling serial number was rounded off to the next higher multiple of cluster size (in case it was not a multiple of the cluster size.)

National Sample Survey

where Z is constant for all strata and $v = 6$ for 'autumn', 'winter' and 'spring' seasons and $v = 2$ for 'summer' season.

$$N'_{st} = \frac{N_{st}}{c_{st}} \quad \text{if clusters of plots were selected using map or a list of plots.}$$

$$= H_{st} \quad \text{if households were selected.}$$

$$\frac{N'_{st}}{n_{st}} = 1 \quad \text{for a village where all the plots or households in the village were surveyed.}$$

$$a_{st} = \text{gross area under a particular crop in all the sampled clusters/plots possessed by the sampled households of the village.}$$

$$\hat{A} = \sum_{s=1}^S \hat{A}_s \quad \text{where } \hat{A}_s \text{ is the } s\text{-th stratum estimate.}$$

$$\hat{A}_s = \frac{Z}{v} \sum_{t=1}^v \frac{\hat{A}_{st}}{z_{st}} \text{ and } \hat{A}_{st} \text{ is the estimate for the } t\text{-th village in the } s\text{-th stratum, } \hat{A}_{st} = r_{st} \frac{N'_{st}}{n_{st}} a_{st}$$

8.4. Substitutions : If any of the selected villages was a casualty for the land utilisation/crop yield survey for a season in the sense that it could not be surveyed, it was to be substituted by the previous sample village selected for land utilisation/crop yield survey in that stratum; for example, if village 6 was casualty, it was substituted by village 3 if possible, otherwise by village 1. If villages 2 and 5 were casualties they were substituted by villages 4 and 2 respectively.

Similarly if a cluster/household selected for acreage survey in a village was a casualty, it was substituted by the previous surveyed cluster/household. Likewise if a selected plot in a cluster selected for acreage survey was a casualty, it was substituted by the previous plot. If the first selected cluster and the first plot in a cluster was a casualty, they were substituted by the last selected cluster and by the last plot in the cluster respectively.

8.5. Production estimate : The production estimate P is the product of Y , an estimate of the yield rate of the crop based on the villages selected for the crop-yield survey and A , an estimate of the area under the crop based on all the villages selected for the land-utilisation survey.

8.6. The estimate Y is given by

$$Y = \sum_s A_s \bar{Y}_s / \sum_s A_s$$

Results of the Land Utilisation Survey and Crop-cutting Experiments

where \bar{Y}_s = simple average of yield rates over the cuts taken for the crop in the s -th stratum.

A_s = obtained as described in paragraph 8.3.

and Σ' = denotes summation over only those strata reporting crop-cutting experiments for that crop.

8.7. The 'total' estimate of production for a crop is given by the sum of the production estimate for that crop grown 'pure' and that for the crop grown 'mixed'.

8.8. The estimates given above are for the green weight of the crop. The estimate for the dry weight is obtained by multiplying the 'total' estimate for the crop for each State sub-sample and season by a drage factor. This factor is the ratio of the total dry weight to the total green weight of that crop (pure and mixed) obtained from the cut of 2'3" radius of the given season and sub-sample for the whole State.

8.9. The combined estimate was taken to be the mean of the two sub-sample estimates.

APPENDIX 2
FACSIMILE OF THE SCHEDULES OF INVESTIGATION

CENTRAL*
STATE

DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY 1962-63

Schedule 5.0 : Land Utilisation

WINTER

(Eighteenth Round)

RURAL

[1] identification particulars of village															
1. serial number 2. zone-state-region 3. stratum 4. sub-round 5. sub-sample 6. sample village 7. C.P.A. classification** 8. method code 9. state..... 10. district..... 		11. tehsil/taluk/thana* 12. village (name) 13. village cadastrally surveyed : yes-1, no-2 14. village map exists : yes-1, no-2 15. village map availed : yes-1, no-2 16. number of schedules 5.01 attached 17. village area (0.00 acres) 18. highest survey number/sampling serial number (method 1/2) 19. total number of households (method 3) 20. number of plots or households surveyed† 21. multiplier†													
[2] investigation particulars															
1. investigator : name..... roll no..... date : (i) survey..... (ii) despatch..... signature..... 2. inspector name..... date : (i) inspection..... (ii) scrutiny..... (iii) despatch..... signature..... 3. scrutiniser : name..... date : (i) receipt..... (ii) scrutiny..... (iii) despatch..... signature.....															
[3] selection of revenue village/hamlet*		[4] particulars of census villages constituting revenue village													
sr. no.	names of revenue villages/hamlets	percen- tage area	random number	sr. no.	names of revenue villages/hamlets	percen- tage area	random number	sr. no.	names of census villages						
(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)	(1)	(2)						
[5] selection of basic plots/households*															
1. interval (I) = 2. random start.....															
3. basic plots/households* selected :															
cluster number				1	2	3	4	5	6						
(1)				R =	R+I =	R+2I = ...	R+3I = ...	R+4I = ...	R+5I = ...						
survey number/sampling serial number of basic plot or household				(2)	(3)	(4)	(5)	(6)	(7)						
[6] village summary block†															
cluster no. or h.h. no.	total geo- graphical area (0.00 acres)	total gross area (0.00 acres)						total area under crop grown singly (0.00 acres)							
		paddy	jowar	bajra	ragi	maize	wheat	barley	paddy	jowar	bajra	ragi	maize	wheat	barley
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
total															

*delete whichever is inapplicable.
**not in C.P.A.-0; in C.P.A. stage 1-1, stage 2-2; in community development block-3.
†not to be filled in by the investigator.

E. P. 1531-3.11.62-12,000

Results of the Land Utilisation Survey and Crop-cutting Experiments

8oh. 8.0-2

*paddy-1, jowar-2, bajra-3, ragi-4, maize-5, wheat-6, barley-7. (Codes are to be given only for the specified cereal crops of the reference season.)

National Sample Survey

Sch. 5.0-8

* season codes for different months of harvesting of crops in the normal year: August to October, autumn-1; November to January winter-2; February to April, spring-3; May and June, summer-4, July will be included in summer or autumn depending on crop and region.

Results of the Land Utilisation Survey and Crop-cutting Experiments

CENTRAL
STATE

DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY 1962-63

Schedule 5.0 : Land Utilisation

AUTUMN
Eighteenth Re-

RURAL

*delete whichever is inapplicable

****not in C.P.A.-0; in C.P.A. stage 1-1, stage 2-2; in community development block-3**

†not to be filled in by the investigator.

E. P. 5080-20 10.62-3,000

National Sample Survey

Sob. 5.0-2

[7] utilisation particulars of plots

1. cluster/household number

2. plots in the cluster (method 1/2)

 - (a) sampling serial number
 - (b) survey number

--	--	--	--	--	--

3. (a) sampling serial number of household (method 3).....

(b) name of the head of the household.....

* paddy-1, jowar-2, bajra-3, ragi-4, maize-5, wheat-6, barley-7. (Codes are to be given only for the specified cereal crops of the reference season.)

** autumn-1, winter-2, spring-3, summer-4.

Results of the Land Utilisation Survey and Crop-cutting Experiments

Sch. 5.0—8

* season codes for different months of harvesting of crops in the normal year: August to October, autumn-1; November to January, winter-2; February to April, spring-3; May and June, summer-4, July will be included in summer or autumn depending on crop and region.

****** not to be filled in by the investigator.

National Sample Survey

CENTRAL*
STATE

ORIGINAL*

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY : 1962-63
Schedule 5.1 : Crop-cutting Experiments

AUTUMN
(Eighteenth Round)

RURAL

[1] identification particulars of village		
1. serial number	6. C.P.A. classification*	11. state.....
2. zone-state-region	7. method code	12. district.....
3. stratum	8. date of area survey	13. tehsil/taluk/thana*
4. sub-sample	9. number of visits for crop-cutting	14. name of village.....
5. sample village	10. total number of experiments	15. village area (0.00 acres).....
[2] investigation particulars		
1. investigator : name.....	roll no.....	date (i) survey..... (ii) despatch..... signature.....
2. inspector : name.....		date (i) inspection..... (ii) scrutiny..... (iii) despatch..... signature.....
3. scrutiniser : name.....	date (i) receipt.....	(ii) scrutiny..... (iii) despatch..... signature.....
[3] remarks by investigator		
[4] remarks by inspector		
[5] number of sample fields (sub-plots) in which crop-cutting experiments were done		
sr. no.	item	number
(1)	(2)	(3)
1. sample fields originally selected for crop-cutting		
2. originally selected fields where crop-cutting experiments were done		
3. sample fields substituted for originally selected fields		
4. total of sample fields where crop-cutting experiments were done (sr. no. 2+3)		
5. sample fields missed for crop-cutting (sr. no. 1-4)		

* delete whichever is inapplicable.

** not in C.P.A.-0; in C.P.A. stage 1-1, stage 2-2; in community development block -3.

E.P. 4053-11-6-62-8000+5000

Results of the Land Utilisation Survey and Crop-cutting Experiments

Sch. 5.1—2

[6] listing and selection of sub-plots (or sub-plot groups) for crop-cutting experiments

* harvested-1, not permitted by cultivator-2, others-3.

National Sample Survey

Sch. 5.1--3

[6] listing and selection of sub-plots (or sub-plot groups) for crop-cutting experiments (*contd*)

[7] selection of sub-plots from sub-plot group for crop-cutting experiments

[8] probable week of harvest of crops in sub-plots selected for crop-cutting experiments

* harvested-1, not permitted by cultivator-2, others-3.

^{**} co-operative-1, indifferent-2, hostile-3.

† relates to the cultivator's household.

Results of the Land Utilisation Survey and Crop-cutting Experiments

卷之三

(a) not irrigated-1; irrigated : canal-1, tank-2, well-3, others-4

(a) not irrigated-1; irrigated : canal-1, tank-2, well-3, others-6
 (b) not manure-0; organic : farmyard-1, town compost-2; inorganic-3, green manure-4, others-5

(c) improved variety from (i) agricultural department-1; (ii) market-2; (iii) other sources-3; (iv) local variety-4.

(d) broadcasting 1, transmitting 2, defining 2, others 4

(d) broadcasting-1, transplanting-2, drilling-3, others-4
(e) very good-1, good-2, average-3, poor-4, very poor-5

* indicates radius of circle. ** not to be filled in by the investigator

National Sample Survey

CENTRAL
STATE

DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY : 1962-63

Schedule 5.2 : Driage Experiments

RURAL

AUTUMN
(Eighteenth Round)

* delete whichever is inapplicable.

^{**} not in C.P.A.-0; C.P.A. stage 1-1, stage 2-2; in community development block-3.

E. P. 5080-20-10-62-1,000

Beh. 5.2-2

Results of the Land Utilisation Survey and Crop-cutting Experiments

STATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY : 1962-63

Schedule 5.1 : Crop-cutting Experiments

AUTUMN

RURAL

(Eighteenth Round)

[1] identification particulars of village				
1. serial number	6. C.P.A. classification*	11. state.....		
2. zone-state-region	7. method code	12. district.....		
3. stratum	8. date of area survey	13. tehsil/taluk/thana.....		
4. sub-sample	9. number of visits for crop-cutting	14. name of village.....		
5. sample villages	10. total number of experiments	15. village area (0.00 acres).....		

[2] investigation particulars

1. investigator : name..... roll no..... date (i) survey..... (ii) despatch..... signature.....
2. inspector : name..... date (i) inspection..... (ii) scrutiny..... (iii) despatch..... signature.....
3. scrutiniser : name..... date (i) receipt..... (ii) scrutiny..... (iii) despatch..... signature.....

[3] remarks by investigator

[4] remarks by inspector

[5] number of sample fields (sub-plots) in which crop-cutting experiments were done

sr. no.	item	number
(1)	(2)	(3)
1.	sample fields originally selected for crop-cutting	
2.	originally selected fields where crop-cutting experiments were done	
3.	sample fields substituted for originally selected fields	
4.	total of sample fields where crop-cutting experiments were done (sr. no. 2+3)	
5.	sample fields missed for crop-cutting (sr. no. 1-4)	

- delete whichever is inapplicable.

** not in C.P.A.-0; in C.P.A. stage 1-1, stage 2-2; in community development block -3.

National Sample Survey

Seh. 5.1—3

[6] listing and selection of sub-plots (or sub-plot groups) for crop-cutting experiments

* harvested-1, not permitted by cultivator-2, others-3.

Results of the Land Utilisation Survey and Crop-cutting Experiments

Sch. 5.1-3

[6] listing and selection of sub-plots (or sub-plot groups) for crop-cutting experiments (contd)															
name of crop		survey number	sub-plot number	gross area (0.00 acres)	cumulative gross area (0.00 acres)	order of selection	cause of rejection*	name of crop		survey number	sub-plot number	gross area (0.00 acres)	cumulative gross area (0.00 acres)	order of selection	cause of rejection*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
[7] selection of sub-plots from sub-plot group for crop-cutting experiments															
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
order of selection of sub-plot group	name of crop	survey number	sub-plot number	percentage of gross area	cumulative percentage	order of selection of sub-plot	cause of rejection*	order of selection of sub-plot group	name of crop	survey number	sub-plot number	percentage of gross area	cumulative percentage	order of selection of sub-plot	cause of rejection*
[8] probable week of harvest of crops in sub-plots selected for crop-cutting experiments															
(1)	(2)	(3)	(4)	name of cultivator with address			date of contacting the cultivator for permission	probable week of harvesting	cultivator's attitude**	total area (0.00 acres)†			under crops of the reference season		
order of selection	survey number	sub-plot number	name of crop	(5)	(6)	(7)	(8)	(9)	(10)	(4)	(5)	(6)	(7)	(8)	

* harvested-1, not permitted by cultivator-2, others-3.
 ** co-operative-1, indifferent-2, hostile-3.

[9] results of crop-cutting experiments

random numbers used : starting with page

column.....

... + + + line . . .

Results of the Land Utilisation Survey and Crop-cutting Experiments

CENTRAL
STATE

DUPLICATE

GOVERNMENT OF INDIA NATIONAL SAMPLE SURVEY : 1962-63

Schedule 5.2 : Driage Experiments

RURAL

AUTUMN
(Eighteenth Round)

* delete whichever is inapplicable.

^{**} Not in C.P.A.-0; C.P.A. stage 1-1, stage 2-2; in community development block-3.

E.P. 4053-11-6-62-8,000+5000

Sch. 5.2—2

NATIONAL SAMPLE SURVEY REPORTS ALREADY PUBLISHED

- No. 1 General Report No. 1 on the First Round (October 1950-March 1951)
2 Tables with Notes on the Second Round (April-June 1951)
3 Tables with Notes on the Third Round (August-November 1951)
4 Special Report on the Survey of Persons in the "Live-Register" of Delhi Employment Exchange (August-September 1951)
5 Technical Paper on Some Aspects of the Development of the Sample Design
6 Survey of Faridabad Township (March-April 1954)
7 Couple Fertility (Second Round, April-June, 1951 and Fourth Round, April-September 1952)
8 Report on Preliminary Survey of Urban Employment (September 1953)
9 Report on the Sample Survey of Displaced Persons in the Urban Areas of the Bombay State (July-September 1953)
10 First Report on Land Holdings, Rural Sector (Eighth Round : July 1954-March 1955)
11 Report on Sample Survey of Manufacturing Industries, 1949-50
12 A Technical Note on Age Grouping
13 Report on Household Transport Operations (Seventh Round : October 1953-March 1954)
14 Report on Some Characteristics of the Economically Active Population (Fourth to Seventh Round : April 1952-March 1954)
15 Report on Sample Survey of Manufacturing Industries, 1951
16 Report on Employment and Unemployment (Ninth Round : Preliminary, May-November 1955)
17 Report on Sample Survey of Employment in Calcutta (September 1953)
18 Tables with Notes on Consumer Expenditure (Fourth Round : April-September 1952)
19 Report on Small Scale Manufacture : Household Enterprises smaller than Registered Factories (Seventh round : October 1953-March 1954)
20 Report on Pattern of Consumer Expenditure (Second to Seventh Round : April 1951-March 1954)
21 Household Small Scale Manufacturing Establishments (Ninth Round : May-November 1955)
22 Report on Sample Survey of Manufacturing Industries, 1952
23 Report on Sample Survey of Manufacturing Industries, 1953
24 Report on Household Retail Trade (Seventh to Ninth Round : October 1953-September 1955)
25 Sample Verification of Livestock Census : 1956
26 A Preliminary Report on Housing Condition (Seventh Round : October 1953-March 1954)
27 Technical Records of Sample Design, Instructions to Field Workers and List of Sample Villages and Urban Blocks (Ninth Round : May-November 1955)
28 Report on Sample Survey of Manufacturing Industries, 1954(1)
29 Notes on Some Results of the Land Utilisation Survey (Tenth Round : December 1955-May 1956)
30 Report on Land Holdings (2) : Operational Holdings in Rural India (Eighth Round : July 1954-April 1955)
31 Tables with Notes on Household Transport Operations (Eighth to Tenth Round : July 1954-May 1956)
32(I) Some Aspects of Costs of Cultivation of Paddy, Wheat, Jowar and Bajra (Fifth to Seventh Round : October 1952-March 1954)

NATIONAL SAMPLE SURVEY REPORTS ALREADY PUBLISHED

- No. 32(II) Some Aspects of Costs of Cultivation of Barley, Maize, Ragi, Gram, Small Millets, Groundnut, Cotton and Jute (Fifth to Seventh Round : October 1952-March 1954)
- 32(III) Some Aspects of Costs of Cultivation of Minor Cereals, Pulses, Sugarcane, Oil Seeds, Potato, Spices and Tobacco (Fifth to Seventh Round : October 1952-March 1954)
- 33 Tables with Notes on Wages, Employment, Income and Indebtedness of Agricultural Labour Households in Rural Areas (Eleventh and Twelfth Rounds: August 1956-August 1957)
- 34 Tables with Notes on Employment and Unemployment (Tenth Round : December 1955-May 1956)
- 35 Tables with Notes on Livestock Products (Fifth to Seventh Round : April 1952-March 1954)
- 36 Report on Land Holdings (3): Some Aspects of Ownership Holdings (Eighth Round : July 1954-April 1955)
- 37 Survey of Book Reader's Preference in India (Thirteenth Round : September 1957-May 1958)
- 38 Some Results of the Land Utilisation Survey and Crop-cutting Experiments (Thirteenth Round : September 1957-May 1958)
- 39 Tables with Notes on Consumer Expenditure (Eighth Round : July 1954-March 1955)
- 40 Tables with Notes on Consumer Expenditure (Ninth Round : May-November 1955)
- 41 Household Retail Trade (Tenth Round : December 1955-May 1956)
- 42 Report on Small Scale Manufacture: Household Enterprises smaller than Registered Factories (Seventh to Eighth Round : October 1953-April 1955)
- 43 Tables with Notes on Small Scale Manufacture: Household Enterprises smaller than Registered Factories (Ninth and Tenth Rounds : May 1955-May 1956)
- 44 A Note on Profession and Services (Fourth to Eighth Round : April 1952-April 1955)
- 45 Report on Indian Villages : A Study of Some Social and Economic Aspects (Tenth to Twelfth Round : December 1955-August 1957)
- 46 Tables with Notes on Consumer Expenditure of Agricultural Labour Households in Rural Areas (Eleventh and Twelfth Rounds : August 1956-August 1957)
- 47 Tables with Notes on Consumer Expenditure (Tenth Round : December 1955-May 1956)
- 48 Preliminary Estimates of Birth and Death Rates and of the Rate of Growth of Population (Fourteenth Round : July 1958-July 1959)
- 49 Report On Morbidity (Thirteenth Round : September 1957-May 1958)
- 50 Tables with Notes on Housing Condition (Tenth Round : December 1955-May 1956)
- 51 Tables with Notes on Housing Condition (Eleventh Round : August 1956-January 1957)
- 52 Tables with Notes on Employment and Unemployment (Eleventh and Twelfth Rounds : August 1956-August 1957)
- 53 Tables with Notes on Internal Migration (Ninth, Eleventh, Twelfth and Thirteenth Rounds : May 1955-May 1958)
- 54 Vital Rates (Seventh Round : October 1953-March 1954)
- 55 Report on Sample Survey of Manufacturing Industries, 1954(2) : Exploratory Survey of Scheduled Industries

NATIONAL SAMPLE SURVEY REPORTS ALREADY PUBLISHED

- No. 56 Report on Sample Survey of Manufacturing Industries, 1955(1) : Survey of Scheduled Industries
- 57 Report on Sample Survey of Manufacturing Industries, 1955(2)
- 58 Report on Sample Survey of Manufacturing Industries, 1956 (1) : Survey of Scheduled Industries
- 59 Tables with Notes on Pattern of Household Ownership and Possession of Land in Rural Area, 1950-51 to 1953-54 (Eighth Round : July 1954-April 1955)
- 60 Tables with Notes on Farming Condition and Practices in Rural Areas 1953-54 (Eighth Round : July 1954-April 1955)
- 61 Notes on the Results of the Land Utilisation Survey and Crop-cutting Experiments : (Eleventh Round : August 1956-February 1957)
- 62 Report on Employment and Unemployment (Ninth Round : Supplementary : May-November 1955)
- 63 Tables with Notes on Employment and Unemployment in Urban Areas (Thirteenth Round : September 1957-May 1958)
- 64 Indian Villages : A Study of Some Social and Economic Aspects (Thirteenth Round : September 1957-May 1958)
- 65 Tables with Notes on Animal Husbandry (Eleventh round : August 1956-January 1957)
- 66 Report on Land Holdings (4) : Rural Sector, States (Eighth Round : July 1954-April 1955)
- 67 Tables with Notes on Housing Condition (Twelfth Round : March-August 1957)
- 68 Tables with Notes on Rural Indebtedness (Eighth Round : July 1954-April 1955)
- 69 Notes on the Results of the Land Utilisation Survey and Crop-cutting Experiments (Twelfth Round : March-August 1957)
- 70 Technical Paper on Sample Design (Fourteenth Round : July 1958-June 1959)
- 71 Consumer Expenditure by Levels of Household Expenditure (Thirteenth Round : September 1957-May 1958)
- 72 Tables with Notes on Milk Production (Twelfth Round : March-August 1957)
- 73 Some Results of the Land Utilisation Survey and Crop-cutting Experiments (Fourteenth Round : July 1958-June 1959)
- 74 Report on Land Holdings (5), Rural Sector (Some Aspects of Operational Holdings—Population Zones and All India) : Eighth Round, July 1954—April 1955
- 75 Report on Sample Survey of Manufacturing Industries : 1956 (2)
- 76 Fertility and Mortality Rates in India (Fourteenth Round : July 1958-June 1959)
- 77 Tables with Notes on Consumer Expenditure (Eleventh Round : August 1956-February 1957)
- 78 Tables with Notes on Consumer Expenditure (Twelfth Round : March-August 1957)
- 79 Some Results of the Land Utilisation Survey and Crop-cutting Experiments (Fifteenth Round : July 1959-June 1960)
- 80 Tables with Notes on Consumer Expenditure (Thirteenth Round : September 1957—May 1958)
- 81 Report on Land Holdings : Urban Sector (Eighth Round, July 1954—April 1955)
- 82 Tables with Notes on Some Aspects of Cost of Cultivation of Paddy, Wheat, Barley, Maize, Millets, Pulses, Oil Seeds and Vegetables, Urban India (Fifth to Seventh Round, 1951—1953)

NATIONAL SAMPLE SURVEY REPORTS ALREADY PUBLISHED

- No. 83 Report on Sample Survey of Manufacturing Industries, 1957 (1)
- 84 Tables with Notes on Sample Survey of Manufacturing Industries : Survey of Scheduled Industries 1957
- 85 Tables with Notes on Employment and Unemployment in Urban Areas, (Fourteenth Round : July 1958—June 1959)
- 86 Tables with Notes on Sample Survey of Manufacturing Industries, 1957 (2)
- 87 Tables with Notes on Average Budget of Agricultural Labour Households in Rural Areas (Eleventh and Twelfth Rounds : August 1956—August 1957)
- 88 Tables with Notes on Household Receipts and Disbursements : Fourteenth Round, July 1958—June 1959
- 89 Tables with Notes on Dwelling Habits of Occupants of the Two-room Government Residences in New Delhi, July 1960
- 90 Tables with Notes on Survey of Scheduled Industries, 1958 : Sample Survey of Manufacturing Industries, 1958
- 91 Tables with Notes on the Annual Survey of Industries, 1959 : Sample Sector : Summary Results.
- 92 Some Results of Land Utilisation Survey and Crop-Cutting Experiments (Sixteenth Round : July 1960—June 1961)
- 93 Tables with Notes on Sample Survey of Manufacturing Industries 1958, Factory Establishments : Summary Results
- 94 Tables with Notes on Small Scale Manufacture : Rural and Urban (Fourteenth Round, July 1958—June 1959)
- 95 Tables with Notes on Household Indebtedness (Sixteenth Round, July 1960—June 1961)
- 96 The Annual Survey of Industries, 1960 : Sample Sector, Summary Results
- 97 Tables with Notes on Capital Formation (Fifteenth Round—Rural : July 1959—June 1960)
- 98 Tables with Notes on Consumer Expenditure (Preliminary) : Fifteenth Round, July 1959—June 1960
- 99 Tables with Notes on Household Non-Registered Trade (Fifteenth Round : July 1959—June 1960)
- 100 Tables with Notes on Rural Employment and Unemployment (Fourteenth Round : July 1958—June 1959)
- 101 Tables with Notes on Consumer Expenditure (Preliminary) : Sixteenth Round, July 1960—August 1961
- 102 Tables with Notes on Consumer Expenditure : Fourteenth Round, July 1958—June 1959
- 103 Tables with Notes on Urban Labour Force : Sixteenth Round, July 1960—June 1961
- 104 Tables with Notes on Consumer Expenditure : Fifteenth Round, July 1959—June 1960
- 105 Tables with Notes on Household Non-Mechanised Transport and Utilization of Working Animals : Fifteenth Round, July 1959—June 1960

NATIONAL SAMPLE SURVEY REPORTS ALREADY PUBLISHED

- 106 Tables with Notes on Land Utilization Survey and Crop-Cutting Experiments : Seventeenth Round, July 1961—June 1962
- 107 Tables with Notes on Consumer Expenditure : Eleventh and Twelfth Round, August 1956—August 1957
- 108 Report on the Type Study on Consumption and Disposal of Cereals and Capital Formation by Households : 1959-60
- 109 Tables with Notes on Indian Villages : Fourteenth Round, July 1958-June 1959
- 110 Tables with Notes on Rates of Birth, Death and Growth of Rural Population : Fifteenth Round, July 1959-July 1960
- 111 Tables with Notes on Sample Survey of Manufacturing Industries : 1958 : Factory Establishments : Detailed Results
- 112 Tables with Notes on Land Utilisation and Crop-cutting Experiments : Eighteenth Round, July 1962—June 1963