



**Report on**

**Questionnaire Based Field Survey of**

**Kharif Groundnut 2021**

**Submitted to**

**Indian Oilseeds and Produce Export Promotion Council**

**(IOPEPC)**

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## Executive Summary

Groundnut is an important oilseed crop in India occupying first position in terms of area and second in terms of production after soybean. It plays a major role in bridging the vegetable oil deficit in the country. The seeds of groundnut are also used extensively as animal feed supplement due to its high protein nature. Groundnut is available throughout the year due to a two-crop cycle harvested in March and October. However in India it is grown mostly under rain-fed conditions and nearly 80 % of annual acreage and production comes from kharif crop (June-October). With an objective of assessment of groundnut production from Kharif-2021 crop, an extensive survey was undertaken in seven major groundnut growing states during the peak harvesting period. Different teams moved across the major groundnut growing regions and interviewed 2732 groundnut farmers in 43 districts across the seven states. For the information of the stakeholders in the export trade, a brief presentation of the estimates was made at the Annual Trade Meet of the IOPEPC on 21 October 2021 at Mumbai, Maharashtra.

Kharif-2021 all India groundnut acreage was 49,14,300 hectares. Seven states, Gujarat (19,09,600 ha; 39%), Rajasthan (7,76,900 ha; 16%), Andhra Pradesh (6,27,200 ha; 13%), Karnataka (4,75,400 ha; 10%), Madhya Pradesh (3,82,000 ha; 8%), Maharashtra (2,02,600 ha; 4%) and Uttar Pradesh (1,16,000,2%) jointly accounted for about 91% of the national acreage. At the national level, there was a decrease in acreage by 3.6% with respect to kharif-2020. The maximum decrease was observed for Andhra Pradesh (-16.4 %) while maximum increase was observed for Madhya Pradesh (36.4%). Decrease was also observed for Karnataka (-11.6%) and Gujarat (-7.5%).

Around 30-50 % of groundnut farmers owned farm land smaller than two hectares especially in the states of UP and Maharashtra. At national level, the peak period of sowing was from 9 June to 27 July. Maximum extent of sowing was done during 2 June to 29 June in Gujarat (77%); and during 26 May to 29 June in Rajasthan (80%); In AP the bulk sowing was in two phases during 23 June to 6 July (45%) and 14 July to 3 August (35%); In Karnataka though sowing started from 16 June but the bulk of sowing was from 7 July to 3 August (57%); In case of UP and MP bulk of sowing was from 23 June to 27 July

Most farmers procured seed from the local vendors and some used their home-grown seed and some hybrid high yielding varieties. Application of fertilizers and pesticides was commonly practiced by all the farmers from the surveyed states. Most of the farmers have followed same cropping pattern like last year except in few places of Banaskantha in Gujarat where Bajra was sown last year. In some districts of Karnataka, Arhar was intercropped with groundnut this time.

Among the surveyed states, the highest yield of 2,071 kg/ha was estimated for Gujarat, followed by 2,010 kg/ha for Rajasthan, 1,565 kg/ha for Madhya Pradesh, 1,227 kg/ha for Karnataka, 1,061 kg/ha for Maharashtra, 922 kg/ha for Uttar Pradesh and 757 kg/ha for Andhra Pradesh. The national average yield was estimated at 1,669 kg/ha. The combined production of these seven states was estimated at 74, 94,701 MT which accounted for about 91% of the estimated national production. With 39,55,094 MT, Gujarat contributed 48% of the national production followed by Rajasthan (15,61,391 MT; 19%), Madhya Pradesh (5,97,965; 7%), Karnataka (5,83,447 MT; 7%), Andhra Pradesh (4,74,853 MT; 6%), Maharashtra (2,15,037 MT; 3%) and Uttar Pradesh (1,06,993 MT; 1%) while the joint contribution of the remaining states was estimated at 7,08,789 MT i.e. 9%. Thus, the all-India Kharif 2021 production was estimated at 82, 03,490 MT

In Kharif 2021, the rainfall was irregular and large excess in groundnut growing regions of Rayalseema and Karnataka belt during the peak sowing season and in Rajasthan, Saurashtra & Kutch met subdivisions during the peak harvesting season. Due to acreage decrease by 3.6 % and yield decrease in most of the states, Kharif 2021 production (82.03 lakh MT) was estimated to be less than that of Kharif-2020 season (85.56 lakh MT).

## 1. Introduction

Groundnut (*Arachis hypogaea* L.) is commonly called the poor man's nut. It is a leguminous crop plant which is widely cultivated in the tropics and subtropics between 40°N and 40°S latitudes. Groundnut is not only an important oilseed crop of India but also an important agricultural export commodity.

With annual all-season coverage of about 50 lakh hectares, globally India ranks first in groundnut acreage and with an output of approx. 80-85 lakh MT (in shell groundnuts), second in production. Although in various states of India groundnut is cultivated in one or more (Kharif, Rabi and Summer) seasons, nearly 80% of acreage and production comes from kharif crop (June-October). For estimating groundnut production from kharif-2021 crop season, a well-planned and extensive crop survey was undertaken in major groundnut growing states of India with a view to providing estimates as early as third week of October 2021.

## 2. Importance and Objectives of Crop Survey

The bulk arrival of Kharif groundnut crop in the marketing yards begins usually in the third week of October and continues up to the second week of November. Being by and large a rain dependent crop, the production of Kharif groundnut in various regions of India varies considerably from year to year.

The second advance estimate, the earliest realistic crop estimates are announced by Government of India in January/February, i.e. three-four months after the bulk harvest of the Kharif crops. If the estimates for Kharif-2021 groundnut crop are made available close on the heels of the harvesting season (first fortnight of November), it would be very helpful in making right decisions about procurement, processing and export.

Therefore, with a view to fulfilling the crucial need of the stakeholders, a survey was undertaken in seven major groundnut growing states of India viz. Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Karnataka, Rajasthan and Uttar Pradesh. A brief presentation of the estimates was made at the Annual Trade Meet of the IOPEPC on 21 October 2021 at Mumbai. The details of the methodology adopted for survey and the estimates are described in this report.

## 3. Methodology

### 3.1 District wise and state wise groundnut acreage

The data on weekly progress of state-wise coverage of Kharif 2021 groundnut crop was obtained from the website of the Directorate of Economics and Statistics, Government of India. Information on district wise final acreage was obtained from the state departments of agriculture concerned either through correspondence or by downloading the information from the website of the respective state department.

### 3.2 Selection of states and districts

The states were first arranged in decreasing order of their groundnut acreages and then only those states were identified as would jointly account for more than 75% of the national acreage. Similarly, within a state, the districts were first arranged in decreasing order of their acreages and then as many districts as would jointly account at least 75% of the acreage of the respective states were selected.

### 3.3 Determination of number of farmers to be interviewed

In each state, efforts were made to interview as many farmers as would be equal to 0.1 per cent of the figures for the Kharif 2021 groundnut acreage of that state (e.g. for a state having an acreage of 10,000 hectares, at least 10 farmers were to be interviewed.)

### 3.4 Composition of the survey teams

Orientation programme had been conducted for entire field team, whom were involved to carry out the field

survey, prior to kick-off the survey. A pre-designed structured questionnaire (Annexure 1) was used for recording the data. Selection of the representative villages/farmers was done after consultation with the local authorities.

### 3.5 GPS Tagging of movement of survey teams

Geolocation of fields were done through RMSI pincer app. The latitude and longitude of points were then superimposed on the respective state/district maps to get a clear picture of the route followed by the interview teams.

### 3.6 Rainfall Data

Month wise, weekly (June, July, August, September and October first fortnight) data for rainfall along with its departure from the normal was downloaded from the website of IMD (Indian Meteorology Department). This data pertained to various defined meteorological subdivisions of Indian states and UT.

### 3.7 Scheduling of Survey

The survey was undertaken during the peak harvesting period of Kharif groundnut crop i.e. during the last week of September to the second week of October to have maximum number of farmers interviewed in their respective fields when the crop had been just harvested, being harvested or was about to be harvested.

### 3.8 Estimation of yield and production of surveyed states

The figures for the average groundnut (in-shell) yield of each district were estimated by taking arithmetic mean of the expected/realized yield as reported by the farmers of the respective districts. Since different districts follow different units of yield, the final yield was converted to 'kg/ha'. For each district, the production of groundnut was estimated by multiplying the estimated average yield of the district with the acreage (in hectares) of that district. The production was expressed as 'MT' (metric tonnes).

The anticipated production of non-surveyed districts was calculated by multiplying the figures of the collective acreages of non-surveyed districts with the weighted average yield of the surveyed districts in the states concerned. The total anticipated production of a state was calculated by summing up the figures for anticipated production in the surveyed and non-surveyed districts.

### 3.9 Estimation of average yield and production of non-surveyed states

The average yield of the non-surveyed states was assumed to be equal to that of the weighted average yield of the surveyed states. The production from each of the non-surveyed state was calculated by using the figures of the weighted average yield of the states and the acreage of state concerned. The all India production was calculated by summing up the anticipated production of the surveyed states and the non-surveyed states.

## 4. Results & Discussions

### 4.1 Kharif 2021 Groundnut Crop Acreage

According to the Directorate of Economics and Statistics, GOI, all India Kharif 2021 the groundnut acreage was 49,14,300 hectares. The states which jointly accounted for about 91% of the national acreage were Andhra Pradesh, Gujarat, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh. The state wise breakup of acreages in these six states is given in Table 1.

**Table 1 Kharif 2021 Groundnut Acreage (States arranged in decreasing order of acreage)**

S No.	State	Acreage(ha)	Share (%)
1	Gujarat	19,09,600	39
2	Rajasthan	7,76,900	16
3	AP	6,27,200	13
4	Karnataka	4,75,400	10
5	MP	3,82,000	8
6	Maharashtra	2,02,600	4
7	UP	1,16,000	2
8	Others	4,24,600	9
9	<b>All India</b>	<b>49,14,300</b>	<b>100</b>

A total of 43 districts across the seven identified states were covered by survey. Total of 2732 groundnut farmers were interviewed. State wise number of districts covered, and the farmers interviewed along with the dates of start and completion of survey is shown in Table 2.

**Table 2 State wise particulars of Kharif 2021 groundnut crop survey**

State	Acreage(ha)	Number			Field Survey Period	
		Districts	Team	Farmers	From	To
Gujarat	19,09,600	8	4	1239	25 <sup>th</sup> September, 2021	11 <sup>th</sup> October 2021
Rajasthan	7,76,900	7	3	578	25 <sup>th</sup> September, 2021	6 <sup>th</sup> October 2021
Andhra Pradesh	6,27,200	2	2	180	3 <sup>rd</sup> October 2021	13 <sup>th</sup> October 2021
Karnataka	4,75,400	6	3	165	30 <sup>th</sup> September 2021	12 <sup>th</sup> October 2021
Madhya Pradesh	3,82,000	5	3	219	28 <sup>th</sup> September 2021	10 <sup>th</sup> October 2021
Maharashtra	2,02,600	5	3	199	1 <sup>st</sup> October 2021	10 <sup>th</sup> October 2021
Uttar Pradesh	1,16,000	10	4	152	28 <sup>th</sup> September 2021	6 <sup>th</sup> October 2021

The district boundary maps of seven states showing the surveyed districts (color shaded) and also the GPS points visited by the survey teams are shown in Figures 1 to 14.

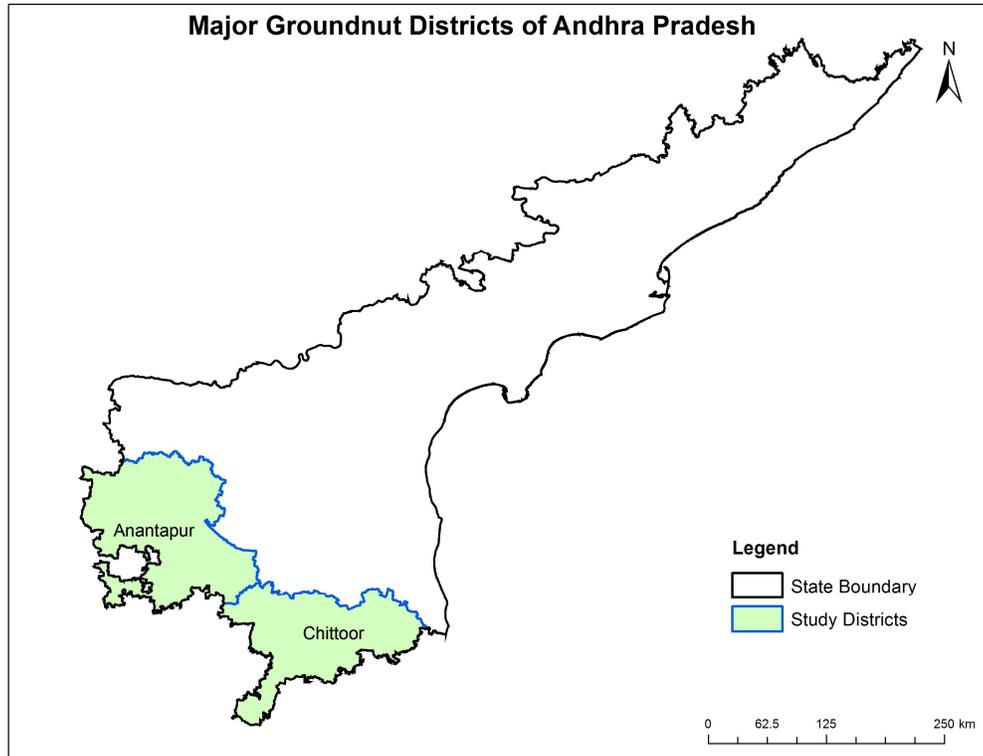


Figure 1 Study Area in Andhra Pradesh State

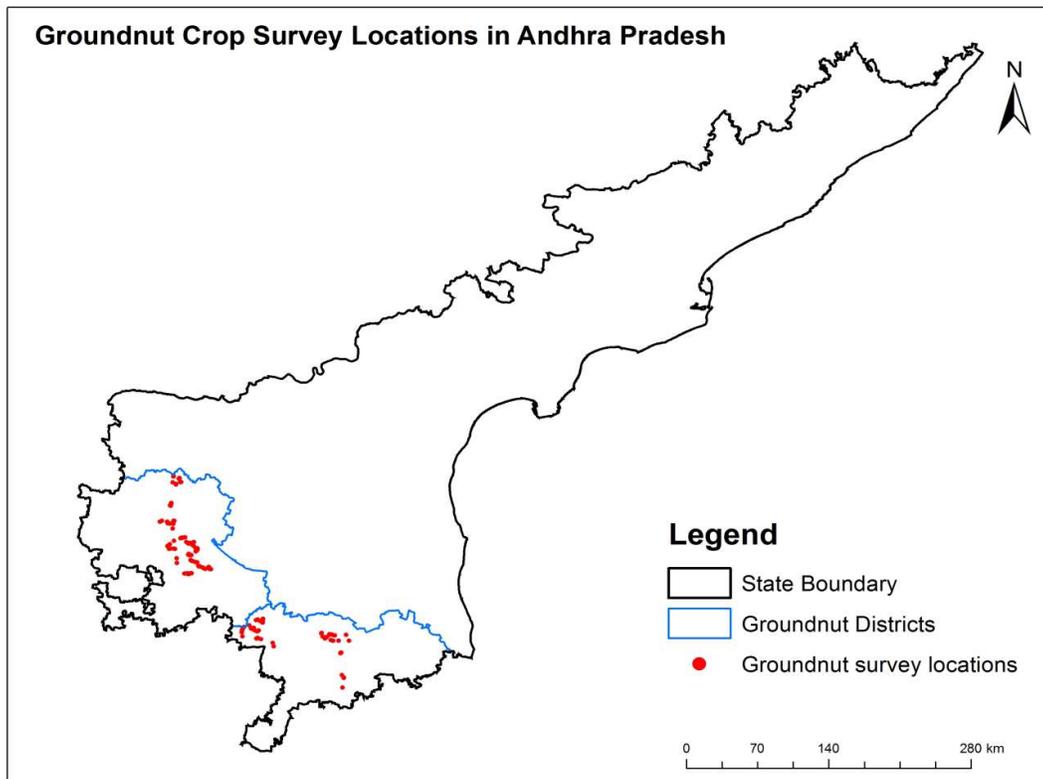


Figure 2 Survey Locations to collect Primary data related to Groundnut in Andhra Pradesh

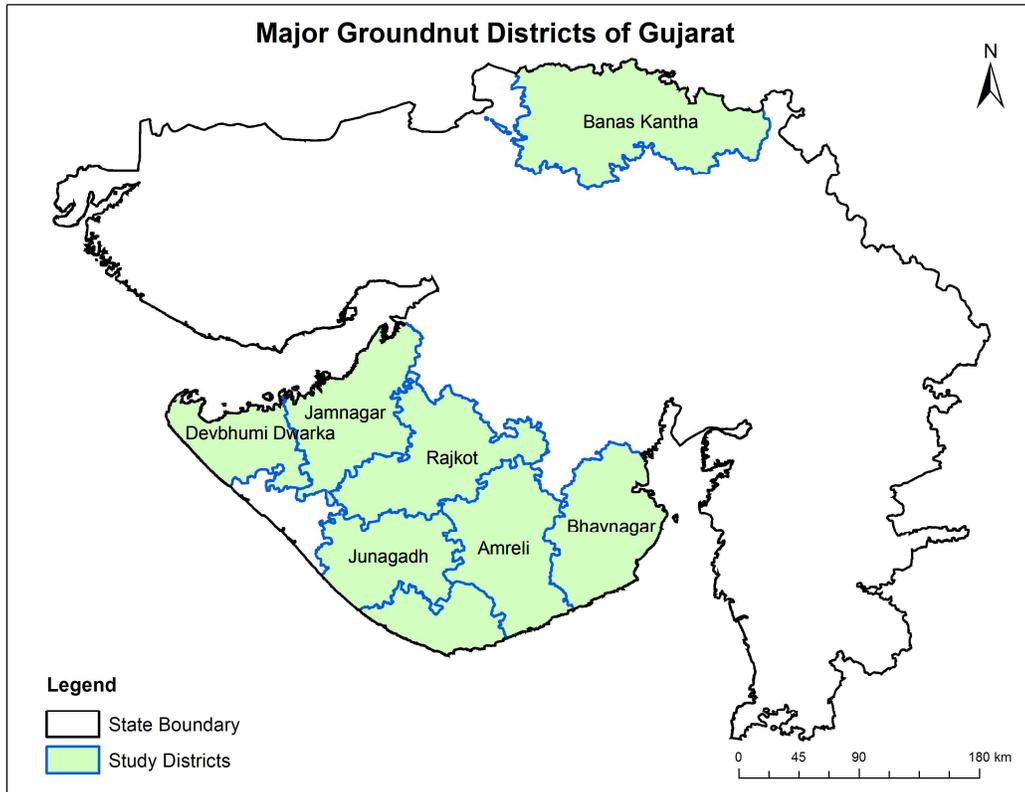


Figure 3 Study Area in Gujarat State

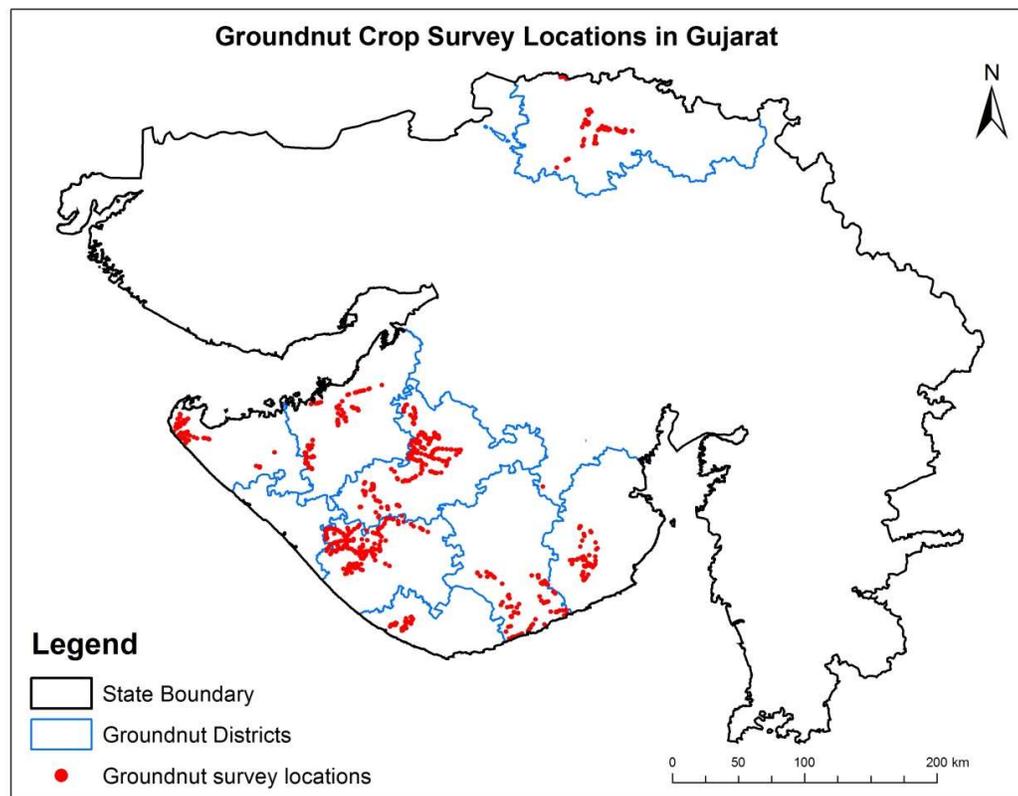
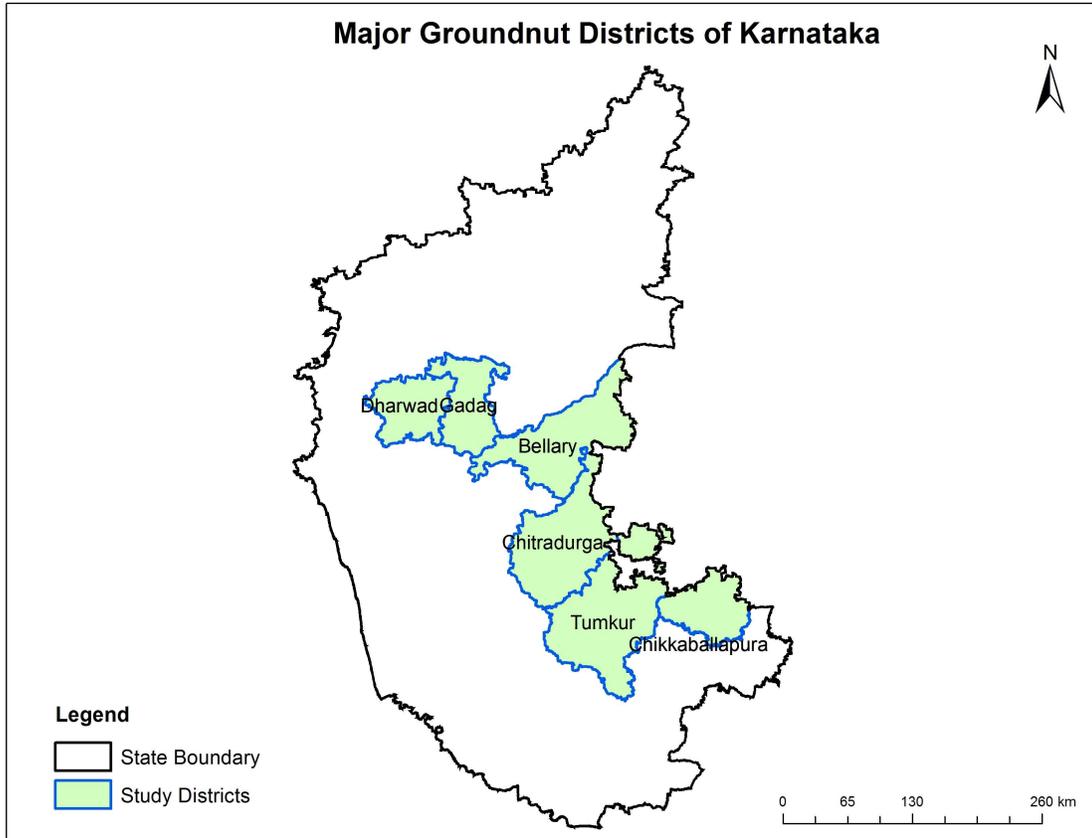


Figure 4 Survey Locations to collect Primary data related to Groundnut in Gujarat



**Figure 5 Study Area in Karnataka State**

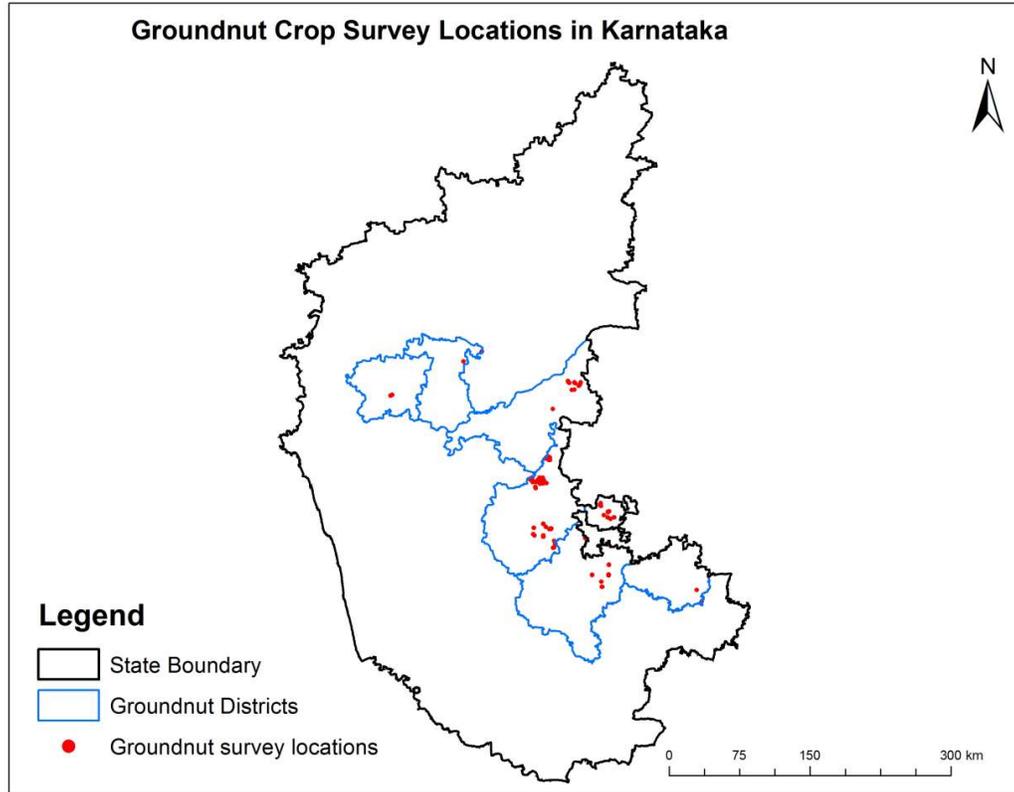


Figure 6 Survey Locations to collect Primary data related to Groundnut in Karnataka

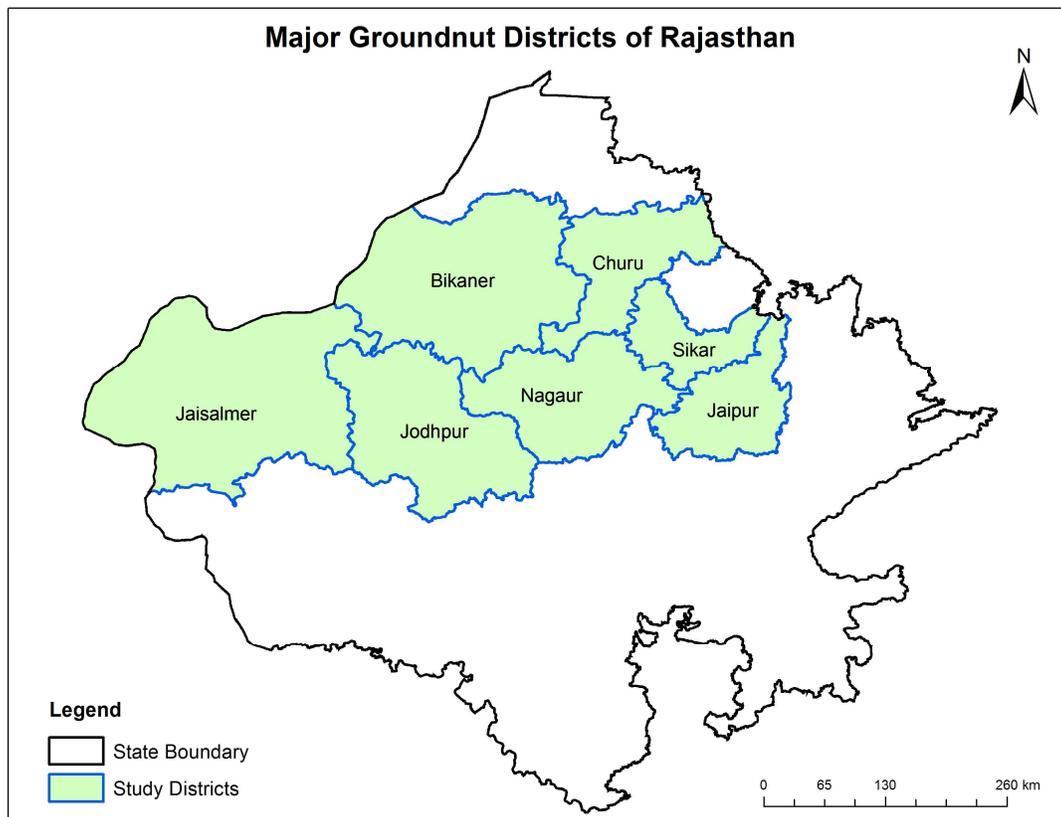
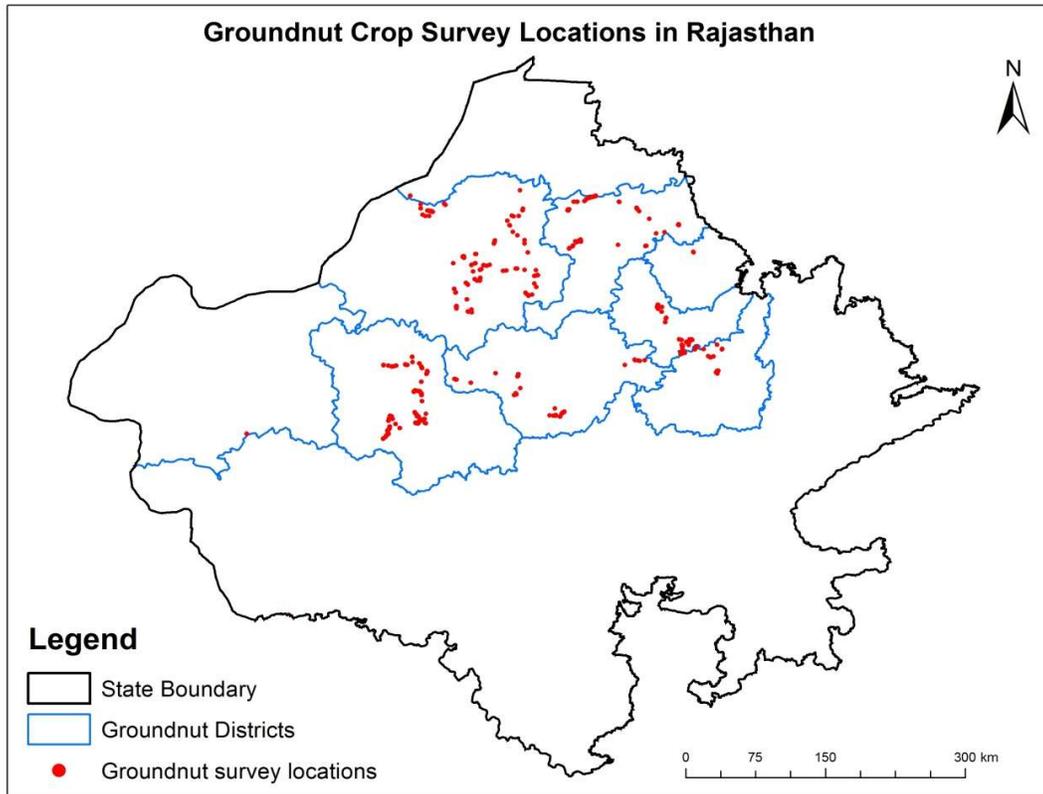


Figure 7 Study Area in Rajasthan State



**Figure 8 Survey Locations to collect Primary data related to Groundnut in Rajasthan**

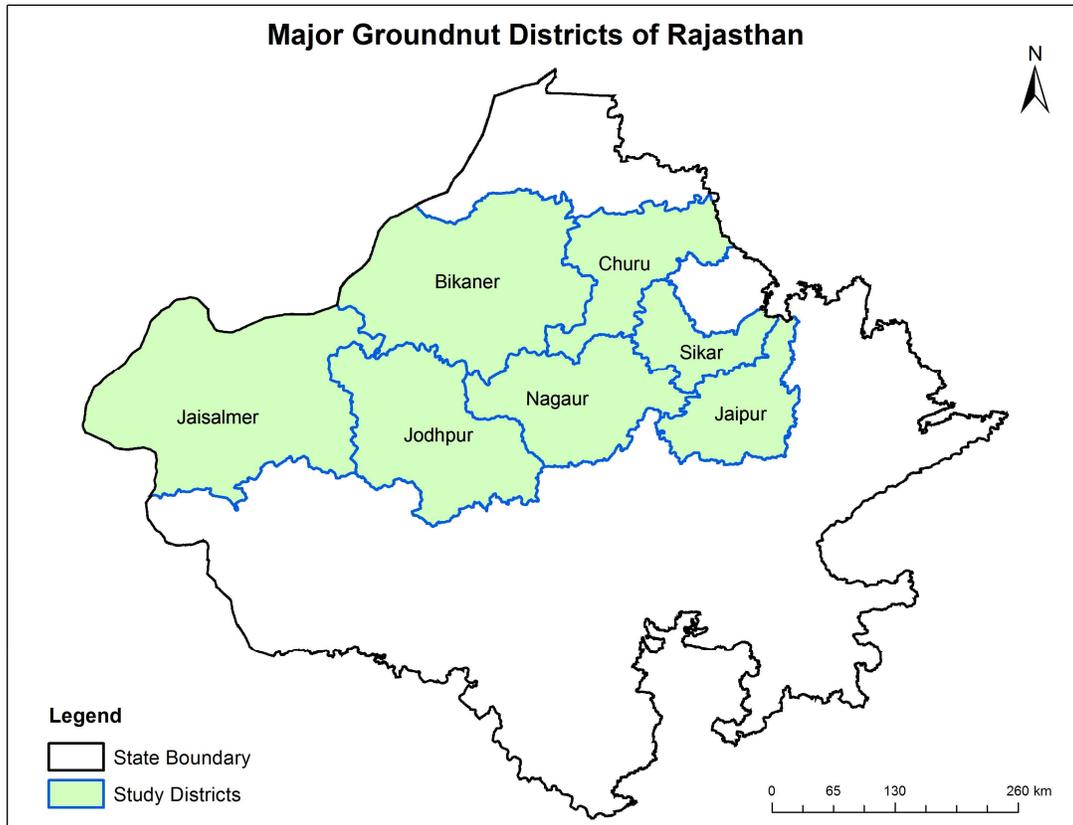


Figure 9 Study Area in Maharashtra State

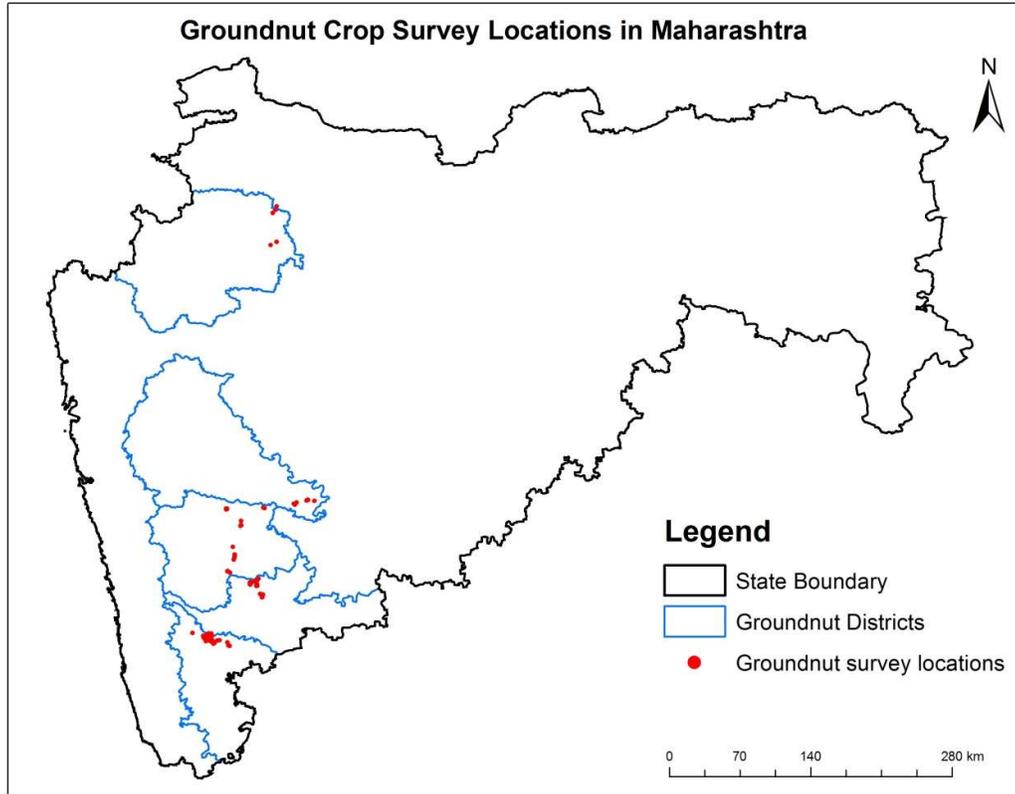


Figure 10 Survey Locations to collect Primary data related to Groundnut in Maharashtra

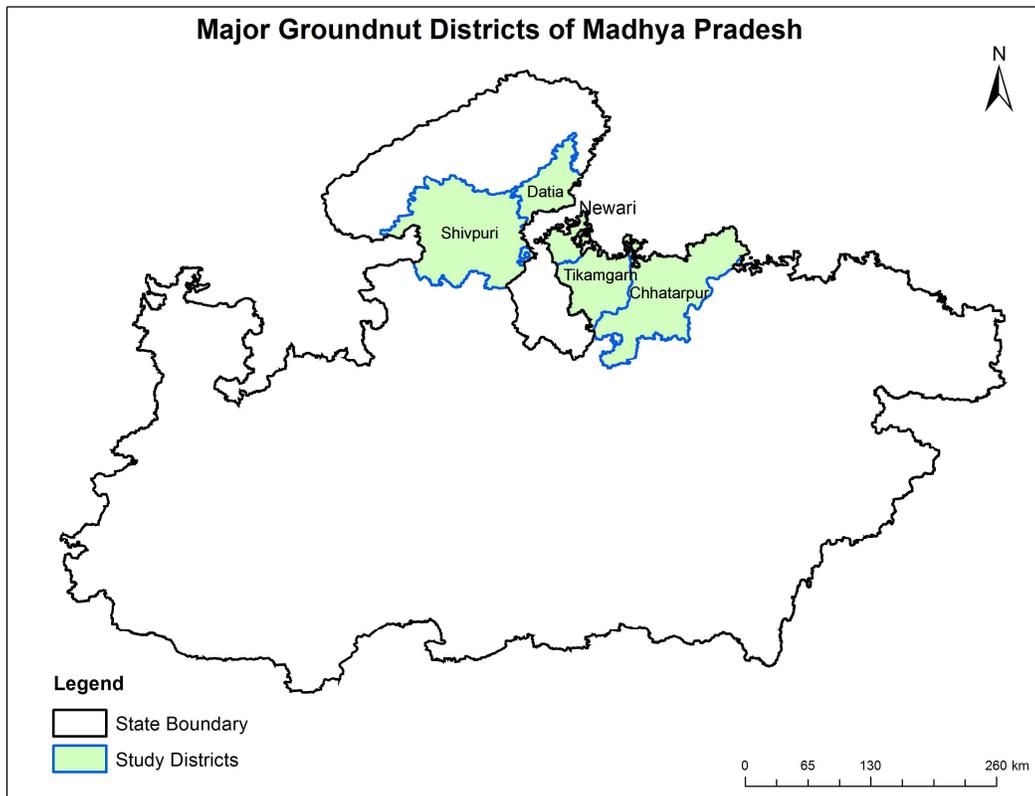


Figure 11 Study Area in Madhya Pradesh State

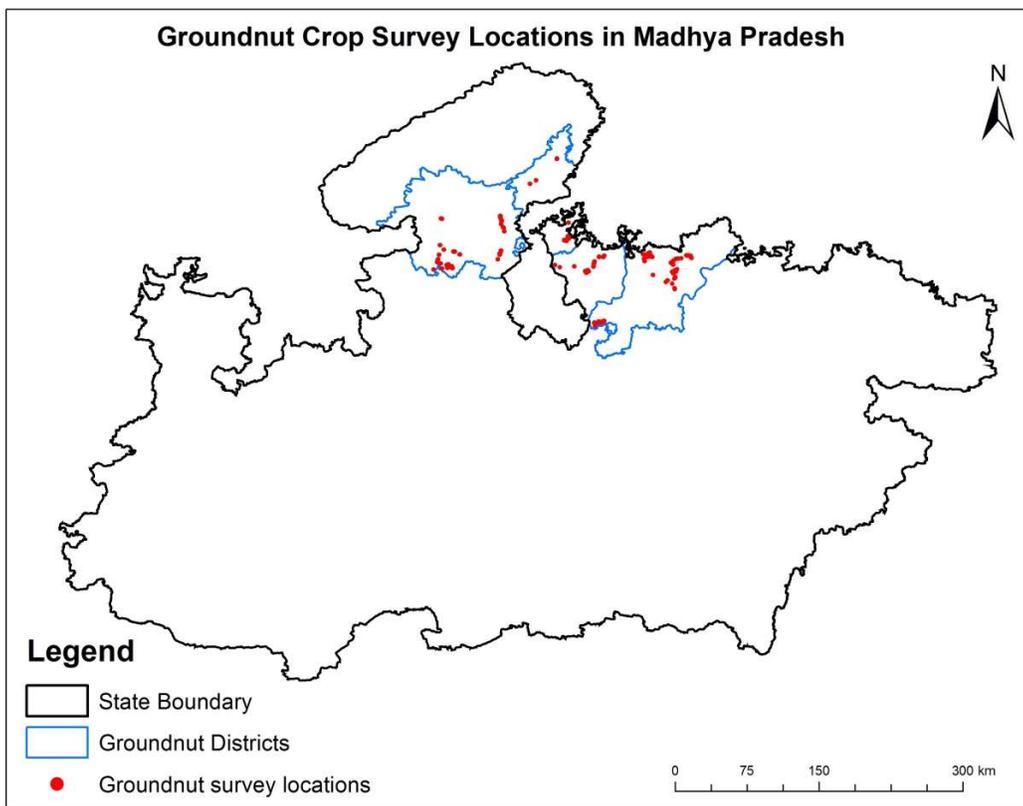


Figure 12 Survey Locations to collect Primary data related to Groundnut in Madhya Pradesh

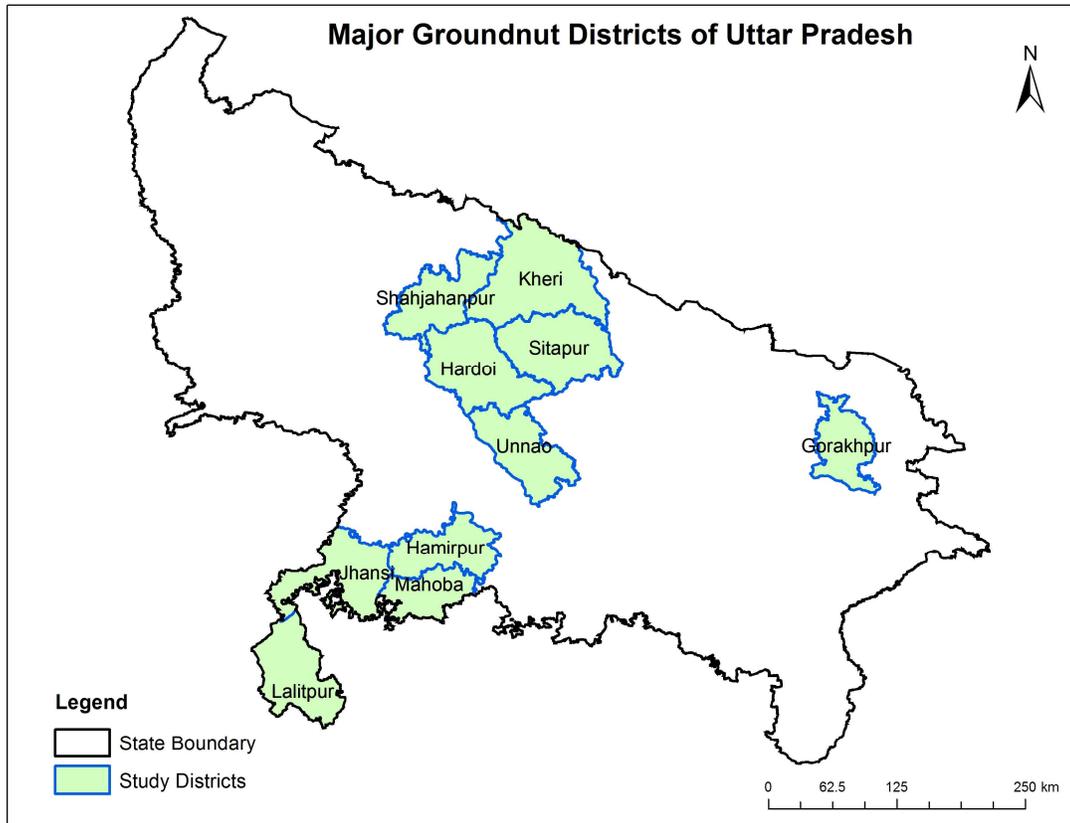
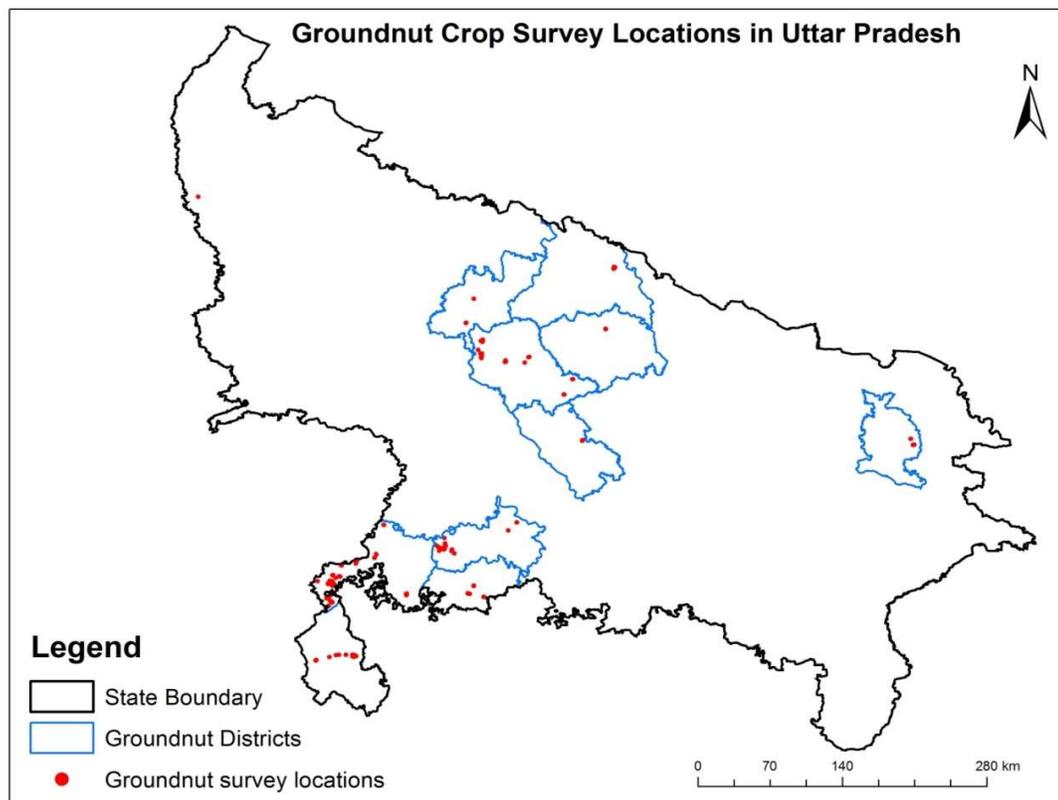


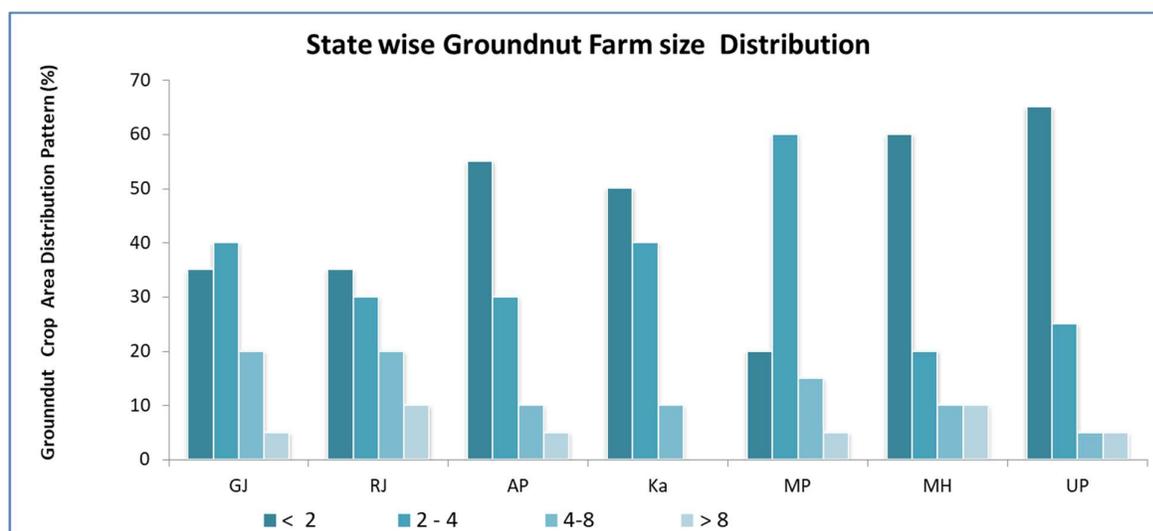
Figure 13 Study Area in Uttar Pradesh State



**Figure 14 Survey Locations to collect Primary data related to Groundnut in UP**

#### 4.2 Relative abundance of different sizes of land holdings:

Based on size of the farm holdings owned, the groundnut farmers were grouped into four categories viz., 2 ha or less, 2 to 4 ha, 4 to 8 ha, and >8 ha. The relative abundance of farmers belonging to each of these categories is shown in Figure 15. Among all the seven states majority of groundnut farmers in Madhya Pradesh have farm size in the range of 2-4 Ha. On the other hand in Uttar Pradesh and Maharashtra majority of the groundnut farm size is less than 2 Ha. In case of Gujarat and Rajasthan the proportion is almost equal for farm land less than 2 Ha and between 2-4 Ha.



**Figure 15 Farm size distribution in the surveyed states**

### 4.3 Period of Sowing

In the surveyed states, on a combined basis the sowing operations began in the last week of May and were concluded in the third week of August. The weeks during which sowing of more than 10% of the final acreage of the state was completed are indicated in Table 3.

The peak period of sowing lasted for about one month in the states of Gujarat, Rajasthan, Madhya Pradesh and Uttar Pradesh. For rest of the three states it was protracted for over 40-45 days. The bulk of sowing began earliest in Rajasthan and Gujarat i.e. in the second week of June. In Maharashtra the bulk of the sowing began in the third week of June while in Andhra Pradesh sowing began in first week of July. In Karnataka bulk of sowing began in second week of July. In MP and UP bulk sowing began in first week of July.

Maximum extent of sowing was done during 2 June to 29 June in Gujarat (77%); and during 26 May to 29 June in Rajasthan (80%); In AP the bulk sowing was in two phases during 23 June to 6 July (45%) and 14 July to 3 August (35%); In Karnataka though sowing started from 16 June but the bulk of sowing was from 7 July to 3 August (57%); In case of UP and MP bulk of sowing was from 23 June to 27 July. Thus, at national level, the period of 9 June to 27 July appeared to be the period of maximum coverage.

**Table 3 Peak period of sowing of groundnut in the surveyed states (% of acreage)**

Period	Gujarat	Rajasthan	Andhra Pradesh	Karnataka	Maharashtra	Madhya Pradesh	Uttar Pradesh
26 May -1 June	#	15	#	#	#	#	#
2 June - 8 June	17	20	#	#	#	#	#
9 June -15 June	32	20	#	#	10	#	#
16 June - 22 June	13	10	#	10	20	#	#
23 June - 29 June	15	15	20	25	15	10	15
30 June -6 July	#	#	25	#	15	20	20
7 July - 13 July	15	#	#	18	15	15	18
14 July - 20 July	#	#	10	11	10	15	19
21 July - 27 July	#	#	10	13	#	15	16
28 July - 3 Aug	#	#	15	15	#	#	#
<b>Total Coverage in Peak Period</b>	<b>92</b>	<b>80</b>	<b>80</b>	<b>82</b>	<b>85</b>	<b>75</b>	<b>88</b>

### 4.4 Scenario of groundnut crop varieties:

Based on the information shared by the farmers state wise list of varieties sown is described below:

- In Gujarat major varieties of groundnut are found to be G-20, G-10, G-99, Five Star TJ-37, Akshay 20, Apple GU 20 etc.
- In Rajasthan major varieties are found to be G-10, G-20, Prakash, Kubera, BG-10 etc.
- In Madhya Pradesh major varieties used are Batalian, Jhumkha, Prakash etc.
- In Karnataka major varieties are found to be K-6, TMV-2, Jayal, Indag etc.
- In UP major varieties are found to be Bold, Divya, Desi, Kubera, JG-2, Chandana, Hawalad etc.
- In Maharashtra major varieties are found to be Dhanlaxmi, Western 44, Western 55, Chira, Phulepragati, Kopargaon etc.
- In Andhra Pradesh the major variety this time is found to be K6.

### 4.5 Application of Fertilizers and Pesticides

Majority of the farmers in all the seven states have reported using fertilizers and pesticides in their fields. In Gujarat farmers have reported using of Urea and DAP@50kg/acre in their fields. Locusts attack was reported from the fields of Banaskantha in Gujarat. Fungal attack was reported from Junagadh of Gujarat, Jaisalmer of Rajasthan, Kheri of Uttar Pradesh. White Grub was reported from Jamnagar in Gujarat.

#### 4.6 Comparison of 2021 Acreage w.r.t. 2020 Acreage

At National level compared to Kharif 2020 there was decrease in groundnut acreage by 3.6%. Kharif-2021 all India groundnut acreage was 49,14,300 hectares. Gujarat, Rajasthan, Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra and Uttar Pradesh jointly accounted for 44,89,700 hectares i.e. 91% of the national acreage. The Kharif 2021 crop acreages of the surveyed states, their shares in the national acreage and change in acreage with respect to kharif 2020 are given in Table 4

**Table 4 Change in Kharif 2021 groundnut acreage w.r.t. 2020 acreage**

State	Kharif 2020		Kharif 2021		
	Acreage(ha)	Share (%)	Acreage(ha)	Share (%)	Change
Gujarat	20,65,000	41	19,09,600	39	-7.5
Rajasthan	7,30,000	14	7,76,900	16	6.4
Andhra Pradesh	7,50,000	15	6,27,200	13	-16.4
Karnataka	5,38,000	11	4,75,400	10	-11.6
Madhya Pradesh	2,80,000	5	3,82,000	8	36.4
Maharashtra	2,01,000	4	2,02,600	4	0.8
Uttar Pradesh	1,12,000	2	1,16,000	2	3.6
Sub Total	46,76,000	92	44,89,700	91	-3.9
Others	4,21,600	8	4,24,600	9	0.7
<b>All India</b>	<b>50,97,600</b>	<b>100</b>	<b>49,14,300</b>	<b>100</b>	<b>-3.6</b>

Source: Department of Economics and Statistics (Govt. of India)

Compared to Kharif 2020 there was decrease in acreage in three states, namely Andhra Pradesh (-16.4 %), Karnataka (-11.6%) and Gujarat (-7.5%).The maximum increase in acreage was in Madhya Pradesh (36.4%), Rajasthan (6.4%) and Uttar Pradesh (3.6%). On all-India basis, there was decrease in area by 3.6%

Based on district wise acreages in the seven states, 43 districts were identified for survey in each state. The names of the districts and their respective share (%) in the state acreage are given in tables 5 to 11.

#### 4.7 Estimated Production

The data generated on yield by the questionnaire survey and the data on acreage collected from the state/central government agencies were used for estimating production of groundnut in each of the districts surveyed and accordingly the production figures for each of the seven states were estimated. The shares of the estimated production of each district in the total estimated production of the respective state are indicated in Tables 5 to 11.

##### 4.7.1 Gujarat

As shown in Table 5, in Gujarat eight districts were surveyed, the highest yield was estimated for Rajkot (2656 kg/ha) and the lowest for Junagadh (1544 kg/ha). The highest production was estimated for Rajkot. The total production for Gujarat was estimated as 39, 55,014MT with an average yield of 2,051 kg/ha. Due to heavy rainfall in the month of October which also coincides with the harvesting season of the crop damages were reported by farmers in Junagadh, Devbhoomi Dwarka and Jamnagar which attributed to lower yield values as compared to last year.

**Table 5 Estimate of Production of Kharif Groundnut (In shell) in Gujarat**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Rajkot	2,71,000	14	281	2656	7,19,689	18
Junagadh	2,24,300	12	241	1544	3,46,319	9
Devbhumi Dwarka	2,18,400	11	191	1853	4,04,652	10
Amreli	1,99,800	10	187	1915	3,82,529	10
Jamnagar	1,84,100	10	132	1606	2,95,620	7
Banaskantha	1,39,500	7	85	2470	3,44,621	9
Bhavnagar	1,17,000	6	67	2594	3,03,489	8
Gir Somnath	90,000	5	55	2155	1,93,988	5
Sub Total	14,44,100	76	1239	2071	29,90,907	76
Others	4,65,500	24	-	-	9,64,107	24
<b>State Total</b>	<b>19,09,600</b>	<b>100</b>	<b>1239</b>	<b>2071</b>	<b>39,55,014</b>	<b>100</b>

#### 4.7.2 Rajasthan

As shown in Table 6 in Rajasthan seven districts were surveyed, the highest yield was estimated for Bikaner (2569 kg/ha) and lowest for Jodhpur (1437 kg/ha). The highest production was estimated for Bikaner. The total production for Rajasthan was estimated as 15, 61,391 MT with an average yield of 2071 kg/ha. Due to heavy rainfall in the month of October which also coincides with the harvesting season of the crop damages were reported by farmers in Jodhpur which attributed to lower yield values as compared to last year.

**Table 6 Estimate of Production of Kharif Groundnut (In shell) in Rajasthan**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Bikaner	2,03,725	26	166	2569	5,23,289	34
Jodhpur	1,61,492	21	151	1437	2,32,046	15
Churu	84,477	11	89	1985	1,67,686	11
Jaisalmer	37,000	5	49	1852	68,535	4
Jaipur	34,803	4	40	1937	67,422	4
Nagaur	33,842	4	43	1606	54,355	3
Sikar	31,869	4	40	2097	66,820	4
Sub Total	5,87,208	76	578	2010	11,80,154	76
Others	1,89,692	24	-	-	3,81,237	24
<b>State Total</b>	<b>7,76,900</b>	<b>100</b>	<b>578</b>	<b>2010</b>	<b>15,61,391</b>	<b>100</b>

#### 4.7.3 Andhra Pradesh

As shown in Table 7 in Andhra Pradesh two districts were surveyed which contributes to 82% of the total acreage of the state. The total production for Andhra Pradesh was estimated as 4,74,853 MT

with an average yield of 757 kg/ha. There was a decrease in acreage and yield in Andhra Pradesh due to excess rainfall during the crop cycle

**Table 7 Estimate of Production of Kharif Groundnut (In Shell) in Andhra Pradesh**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Ananthapur	4,19,117	67	90	749	3,14,109	66
Chittoor	95,314	15	90	791	75,367	16
Sub Total	5,14,431	82	180	757	3,89,476	82
Others	1,12,769	18	-	-	85,377	18
<b>State Total</b>	<b>6,27,200</b>	<b>100</b>	<b>180</b>	<b>757</b>	<b>4,74,853</b>	<b>100</b>

#### 4.7.4 Karnataka

As shown in Table 8 in Karnataka six districts were surveyed, the highest yield was estimated for Chikkaballapur (2298 kg/ha) and lowest was estimated in Chitradurga (947 kg/ha).The total production of Karnataka was estimated as 5, 83,447 MT with an average yield of 1227 kg/ha.

**Table 8 Estimate of Production of Kharif Groundnut (In Shell) in Karnataka**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Chitradurga	1,40,900	30	90	947	1,33,451	23
Tumakuru	1,01,800	21	51	1268	1,29,044	22
Bellary	46,300	10	4	1290	59,743	10
Gadag	40,200	8	5	1211	48,674	8
Chikkaballapur	29,200	6	8	2298	67,102	12
Dharwad	26,300	6	7	1297	34,118	6
Sub Total	3,84,700	81	165	1227-	4,72,133	81
Others	90,700	19	-	-	1,11,314	19
<b>State Total</b>	<b>4,75,400</b>	<b>100</b>	<b>165</b>	<b>1227</b>	<b>5,83,447</b>	<b>100</b>

#### 4.7.5 Madhya Pradesh

As shown in Table 9 in Madhya Pradesh five districts were surveyed, the highest yield was estimated for Shivpuri(2019 kg/ha). The total production of Madhya Pradesh was estimated as 5, 97,965 MT with an average yield of 1565 kg/ha.

**Table 9 Estimate of Production of Kharif Groundnut (In Shell) in Madhya Pradesh**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Shivpuri	1,21,000	32	115	2019	2,44,276	41
Tikamgarh	71,700	19	51	1236	88,585	15
Chhatarpur	41,700	11	41	1221	50,902	9
Niwadi	37,000	10	6	1275	47,176	8
Datia	18,500	5	6	1236	22,857	4
Sub Total	2,89,900	76	219	1565	4,53,796	76

Others	92,100	24	-	-	1,44,169	24
<b>State Total</b>	<b>3,82,000</b>	<b>100</b>	<b>219</b>	<b>1565</b>	<b>5,97,965</b>	<b>100</b>

#### 4.7.6 Maharashtra

As shown in Table 10 in Maharashtra five districts were surveyed, the highest yield was estimated for Kolhapur (1218kg/ha) and lowest in Pune (865 kg/ha). The total production of Maharashtra was estimated as 2, 15,037 MT with an average yield of 1061 kg/ha.

**Table 10 Estimates of production of Kharif Groundnut (In Shell) in Maharashtra**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Kolhapur	40,010	20	80	1218	48,740	23
Satara	37,320	18	48	1092	40,742	19
Sangli	36,695	18	51	1002	36,786	17
Nashik	26,095	13	15	964	25,147	12
Pune	13,709	7	5	865	11,856	6
<b>Sub Total</b>	<b>1,53,829</b>	<b>76</b>	<b>199</b>	<b>1061-</b>	<b>1,63,272</b>	<b>76</b>
Others	48,771	24	-	-	51,765	24
<b>State Total</b>	<b>2,02,600</b>	<b>100</b>	<b>199</b>	<b>1061</b>	<b>2,15,037</b>	<b>100</b>

#### 4.7.7 Uttar Pradesh

As shown in Table 11 in Uttar Pradesh ten districts were surveyed, the highest yield was estimated for Lalitpur (1231 kg/ha) and lowest in Hardoi (720 kg/ha).The total production of Uttar Pradesh was estimated as 1,06,993 MT with an average yield of 922 kg/ha.

**Table 11 Estimated of production of Kharif Groundnut (In Shell) in Uttar Pradesh**

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Jhansi	25,680	22	41	1048	26,913	25
Lalitpur	13,761	12	20	1231	16,934	16
Hardoi	11,890	10	25	720	8,561	8
Kheri	11,249	10	13	750	8,437	8
Mahoba	9,208	8	12	761	7,007	7
Gorakhpur	4,954	4	8	988	4,897	5
Shahjahanpur	3,303	3	5	600	1,982	2
Unnao	3,065	3	9	900	2,759	3
Hamirpur	2,752	2	15	741	2,040	2
Sitapur	2,722	2	4	800	2,178	2
<b>Sub Total</b>	<b>88,584</b>	<b>76</b>	<b>152</b>	<b>922-</b>	<b>81,706</b>	<b>76</b>

District	Acreage (ha)	Share (%)	Farmers	Yield (kg/ha)	Production (MT)	Share (%)
Others	27,416	24	-	-	25,287	24
<b>State Total</b>	<b>1,16,000</b>	<b>100</b>	<b>152</b>	<b>922</b>	<b>1,06,993</b>	<b>100</b>

#### 4.8 All India Production

The figures for estimated state wise production and estimated all India production is given in Table 12. With an estimated production of 82, 03,490 MT, Gujarat had a share of 48% in the national production and it was followed by Rajasthan (15, 61,391 MT) with a share of 19%. All the seven states contribute 91 % of the national production. Among the seven states the highest yield of 2071 kg/ha was estimated for Gujarat and lowest was estimated for Andhra Pradesh. The national average was estimated as 1669 kg/ha

**Table 12 All India Production of In shell Groundnut**

State	Acreage (Ha)	Share (%)	Yield (kg/ha)	Production (MT)	Share (%)
<b>Gujarat</b>	19,09,600	39	2071	39,55,014	<b>48</b>
<b>Rajasthan</b>	7,76,900	16	2010	15,61,391	<b>19</b>
<b>AP</b>	6,27,200	13	757	4,74,853	<b>6</b>
<b>Karnataka</b>	4,75,400	10	1227	5,83,447	<b>7</b>
<b>MP</b>	3,82,000	8	1565	5,97,965	<b>7</b>
<b>Maharashtra</b>	2,02,600	4	1061	2,15,037	<b>3</b>
<b>UP</b>	1,16,000	2	922	1,06,993	<b>1</b>
<b>Subtotal</b>	44,89,700	92		74,94,701	<b>91</b>
<b>Others</b>	4,24,600	8		7,08,789	<b>9</b>
<b>Total</b>	<b>49,14,300</b>	<b>100</b>	<b>1669</b>	<b>82,03,490</b>	<b>100</b>

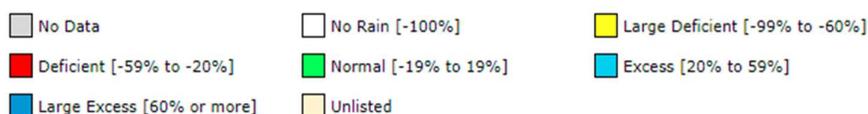
### 4.9 Rainfall Scenario

The Meteorological Department of India has divided the states into two or more meteorological sub-divisions. Accordingly, from the point of view of survey the important subdivisions are West Rajasthan, East Rajasthan, Saurashtra, Gujarat region, East Madhya Pradesh, West Madhya Pradesh, Madhya Maharashtra, North interior Karnataka, South Interior Karnataka, Rayalseema, East Uttar Pradesh and West Uttar Pradesh.

The graphical representation of rainfall pattern in the meteorological sub divisions of the major groundnut growing regions is given in Figure 16.

MET. SUBDIVISION	27 May-2 June	3-9 June	10-16 June	17-23 June	24-30 June	1-7 July	8-14 July	15-21 July	22-28 July	29 July - 4 Aug	5-11 Aug	12-18 Aug	19-25 Aug	26 Aug - 1 Sep	2 Sep - 8 Sep	9 Sep - 15 Sep	16 Sep - 22 Sep	23 Sep - 29 Sep	30 Sep - 6 Oct	6 Oct - 13 Oct
Saurashtra & Kutch	-100	-58	-78	3	-27	-51	-35	-40	-32	-40	-47	-51	-50	-50	-35	-3	0	13	307	279
Gujarat	-98	-12	-51	30	-1	-34	-38	-35	-28	-37	-44	-47	-45	-44	-42	-30	-24	-16	52	63
West Rajasthan	150	197	97	70	36	-4	7	-9	-9	-4	-9	-20	-21	-24	-17	-2	10	20	187	102
East Rajasthan	-31	46	-3	5	-15	-39	-43	-39	-23	22	22	7	0	-2	-3	6	11	15	190	39
West Madhya Pradesh	-2	53	72	39	30	-10	-20	-21	8	24	23	12	9	6	4	7	12	14	89	7
East Madhya Pradesh	255	77	170	89	43	2	-14	-23	-4	-2	-6	-15	-17	-21	-22	-19	-16	-15	-6	-36
Madhya Maharashtra	121	53	13	38	21	-8	-3	4	27	17	6	3	4	5	10	15	12	17	67	78
Rayalseema	48	267	95	54	60	92	92	115	91	70	61	49	45	44	47	34	25	19	-39	43
N.I.Karnataka	8	94	54	66	54	41	49	57	63	46	33	31	30	34	38	32	26	24	-15	18
S.I.Karnataka	-73	40	39	47	15	3	1	19	27	18	14	8	8	8	11	11	6	3	82	126
East Uttar Pradesh	570	-11	226	176	88	38	1	3	3	5	5	3	4	1	-4	-9	2	4	183	55
West Uttar Pradesh	416	-35	55	60	-3	-30	-46	-21	-20	-5	-10	-22	-20	-22	-23	-23	-21	-21	-2	-48

Figure 16 Graphical representation or rainfall pattern in the meteorological subdivisions of the major groundnut growing states of India



With respect to long time average, the descriptors used by the IMD to categorizes the extent of rainfall in the subdivisions are: Normal- minus 19 per cent to plus 19 per cent; Deficient- minus 20 per cent to minus 59 per cent; Large deficient minus 60 per cent or more; Excess- plus 20 per cent to plus 59 percent; Large excess- plus 60% or more; and No rains- 0 per cent.

In the year 2021, monsoon was excess in Rayalseema (AP) region in the month of June which led to delayed sowing in that state as compared to 2020. In the month of July and August rainfall was deficient in the Saurashtra & Kutch and Gujarat met sub-divisions. Since maximum sowing was completed by the month of June in this region and farmers were well equipped with irrigation facilities this didn't led to any major impact to the crop. However, from last week of September to October rainfall was again excess in this part along with Rajasthan, Eastern UP districts. Since this time period also coincides with the harvest and post-harvest drying periods, it, might have adversely affected quality of the produce at these places.

These factors can therefore be attributed to decrease in acreage by 3.6 % and production by 4.15% as compared to last year 2020.

**Disclaimer**

**RMSI Cropalytics is responsible for the process of gathering, processing and analyzing the information supplied by the farmers in India from structured face-to-face interviews. All information contained herein reflects the opinions and forecasts of the interviewed farmers at the time of survey.**

**ACKNOWLEDGEMENT**

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**Annexure 1: Format of Questionnaire Field Form for Groundnut**



**Indian Oilseeds and Produce Export Promotion Council**

78-79, Bajaj Bhawan, Nariman Point, Mumbai-400021  
Tel: 022-22023225/ 22029295 Fax: 022-22029236

**Model Questionnaire: Kharif-2021 Crop Survey: Groundnut**

State:  Guj /  Raj /  Mah /  Karnataka /  A.P. /  M.P. /  U.P

Team ID: ..... Date of survey:

**[A] General information:**

Farmer's name: ..... Education: .....

Contact No ..... Aadhar No. ....

Village..... Taluka: ..... District: .....

Total land holding (Acres): ..... Area under groundnut (Acres): .....

**Source of irrigation:**

Open well  Bore-well  Pond  River  Other (specify) .....

**Method of irrigation:**

Check basin  Drip  Sprinkler  Others (specify) .....

**[B] Agronomic particulars:**

**Source of seed:**

Own  Private company  Govt. agency  Other (specify) .....

Name of variety: ..... Date of sowing:

Spacing: Row-to-row: ..... Within-row: .....

Details of seed-treatment, if any: .....

Quantum of seed used per Hectare: .....

**Method of sowing:**

Broadcast  Line sowing  Seed drill bullock/tractor

No of crops taken per year. .... Name of crops taken last year .....

No. of irrigations given, if any: .....

Intercropping with groundnut (if any): .....

**Use of manures and fertilizers (name and rate of application):**

A. Organic manure (specify) .....

**B. Fertilizers applied (dose):**

Urea ..... DAP.....SSP .....

MOP.....Micronutrient .....

C. Lime ..... Gypsum ..... Other (specify).....

D. Rhizobium: ..... Crop residue (specify) .....

**Weed management:**     Manual             Chemical             Mixed

**[C] Occurrence and management of pest and diseases:**

	Pest/Disease	Severity	Stage of growth	Treatment (pesticide / fungicides used)
1				
2				
3				

**Extent (%) of crop damage due to unseasonal rains, if any,**

**[D] Harvesting and post-harvest operations:**

**Date of harvest/expected date of harvest:**        

**Kharif yield obtained/expected:**

Year	Yield		Price realized	
	Farmer's unit	Converted values (kg/ha)	Farmer's unit	Converted value (Rs. per q)
<b>2020</b>				
<b>2021</b>				

**Mode of disposal:**

On-farm directly to local trader/broker             At the market-yard

**Organic cultivation of groundnut:**

Practicing             Not practicing             Interested             Not interested

**Whether obtained any training on agriculture: Yes/No. Details and name of agency.....**

Comments of surveyor, if any: .....

Signature of surveyor: .....