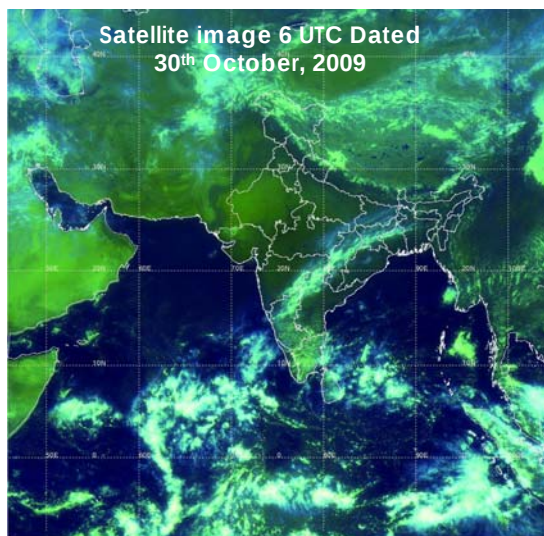




National Agromet Advisory Bulletin

Thursday, 29th October, 2009 (For the period 29th October to 2nd November, 2009)



Rainfall Forecast valid upto 1730 hours IST of 1st November, 2009

- **Many Places:** Tamil Nadu & Pondicherry
- **Few Places:** Rayalaseema, Kerala, Lakshdweep, Andaman & Nicobar Islands,
- **Isolated Places:** Coastal Karnataka, South Interior Karnataka, Coastal Andhra Pradesh,
- **Mainly dry Weather:** North West India, East India, North East India, West India, Central India, Telangana, North Interior Karnataka

Weather Outlook from 1730 hrs IST of 1st November to 1730 hrs IST of 3rd November, 2009

- Isolated to scattered rainfall activity over south peninsular India.
- Mainly dry weather conditions over the rest of the country.

Salient advisories

- Farmers are advised not to apply irrigation in Tamil Nadu as there are chances of rainfall at many places in the state.
- As there was no significant rain in the remaining states during last week and mainly dry weather/no significant rain is likely to occur for next five days, farmers are advised to apply need based irrigation to the standing crops.

Advisories for *rabi* sowing

- Prepare the land and undertake sowing of wheat, mustard and raya and planting of sugarcane and winter vegetable crops in Uttarkhand.
- Farmers are advised to undertake field preparation and sowing of sunflower, bajra and pulse crops like red gram, green gram and black gram and transplanting of chilli utilizing the monsoon rainfall.
- As the weather is likely to be favourable undertake sowing of wheat, gram, groundnut, green gram, black gram, lentil and planting of onion in Orissa.

Advisories for pest and disease

- Due to favourable weather condition, there are chances of pest and disease incidences in the following regions:
 - Sawfly and burgada (dholia) in early sown mustard, bacterial blight in guar and jassids in cotton in Haryana
 - Flea beetle in toria, anthracnose/die back in citrus and leaf curl in peach/plum/apricot in Jammu & Kashmir
 - Late leaf blight in groundnut, wilt in red gram, blast in rice and scales/mealy bug in sugarcane in Andhra Pradesh.
- Farmers are advised to undertake plant protection measures, if required.

Issued by

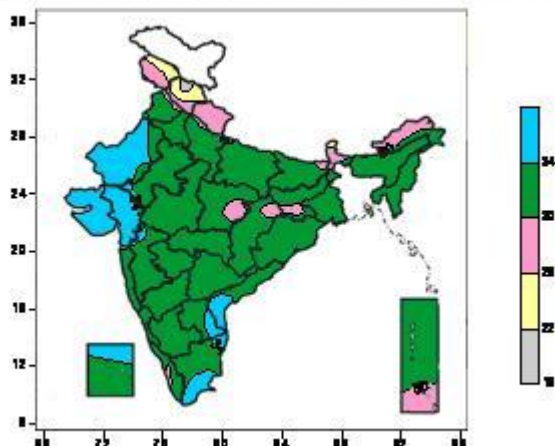
National Agrometeorological Advisory Service Centre,

Agricultural Meteorology Division, India Meteorological Department, Shivajinagar, Pune.

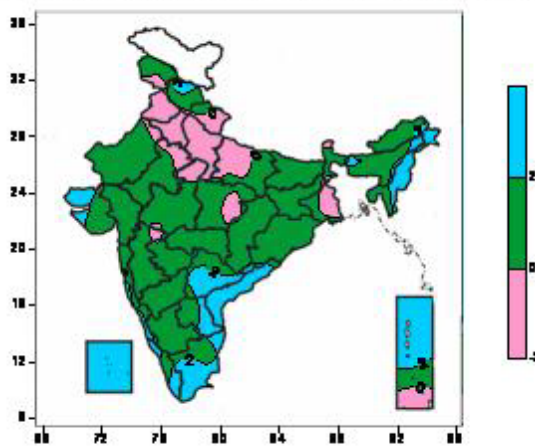
The bulletin is also displayed in the website (<http://www.imdagrimet.org>) of the Division

Contour maps for the week ending 28.10.09

Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 28.10.09



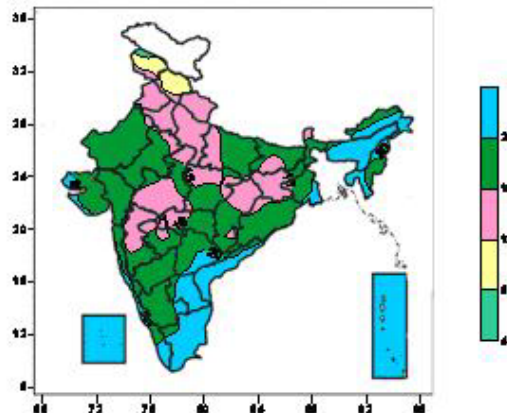
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 28.10.09



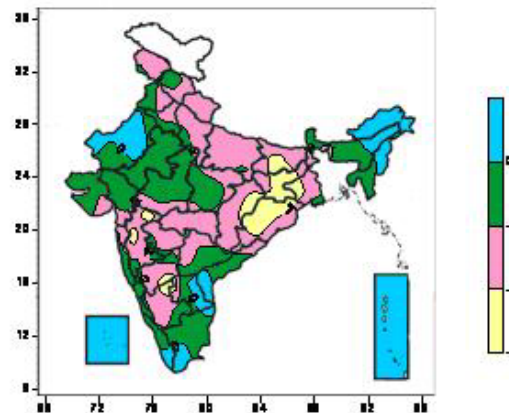
Actual Mean Maximum temperature ranged between 34 to 38 $^{\circ}\text{C}$ over most parts of West Rajasthan, Gujarat, Saurashtra & Kutch, some parts of Punjab, East Rajasthan, Konkan & Goa, Madhya Maharashtra, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu and Lakshadweep Islands, 26 to 30 $^{\circ}\text{C}$ over most parts of Uttarakhand, some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, West Uttar Pradesh, Bihar, Jharkhand, East Madhya Pradesh, Chhattisgarh, Sub Himalayan West Bengal, Arunachal Pradesh, Andaman & Nicobar Islands 22 to 26 $^{\circ}\text{C}$ over some parts of Jammu & Kashmir, Himachal Pradesh, Sikkim, 18 to 22 $^{\circ}\text{C}$ over some parts of Himachal Pradesh and 30 to 34 $^{\circ}\text{C}$ over remaining parts of the country.

Actual Mean Maximum temperature anomaly ranged between 2 $^{\circ}\text{C}$ and above over most parts Nagaland, Manipur, Coastal Andhra Pradesh, Lakshadweep, Andaman & Nicobar Islands, some parts of Himachal Pradesh, Assam, Arunachal Pradesh, Orissa, Telangana, Rayalaseema, Tamil Nadu, Konkan & Goa, Coastal Karnataka, Kerala, Saurashtra & Kutch, -2 to 0 $^{\circ}\text{C}$ over most parts of Punjab, Haryana, Uttarakhand, Uttar Pradesh, over some parts of Jammu & Kashmir, Rajasthan, West Bengal, Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, Andaman & Nicobar Island, 0 to 2 $^{\circ}\text{C}$ over remaining parts of the country.

Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 28.10.09



Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 28.10.09



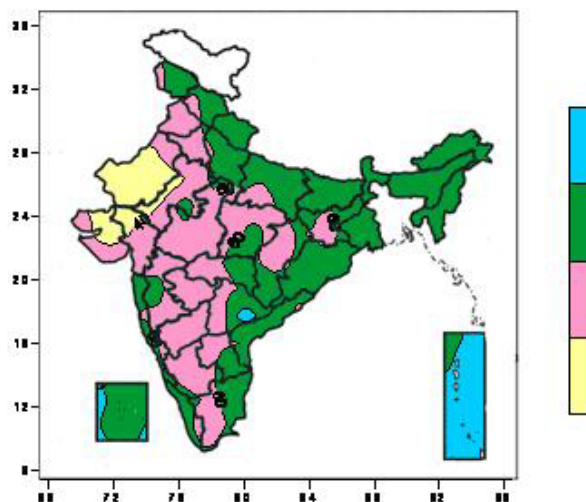
Actual Mean Minimum Temperature ranged between 20 $^{\circ}\text{C}$ and above over most parts of Assam & Meghalaya, Mizoram, Tripura, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Andaman & Nicobar Islands, Lakshadweep, some parts of Gangetic West Bengal, Telangana, Saurashtra & Kutch, Konkan & Goa, Karnataka, Kerala, 12 to 16 $^{\circ}\text{C}$ over most parts of Punjab, Haryana, West Uttar Pradesh, Uttarakhand, Delhi, Sikkim, West Madhya Pradesh, North Madhya Maharashtra, some parts of Jammu & Kashmir, Himachal Pradesh, East Uttar Pradesh, Bihar, Rajasthan, East Uttar Pradesh, Bihar, Jharkhand, Orissa, Chhattisgarh, East Madhya Pradesh, Chhattisgarh,

Minimum Temperature anomaly ranged between 0 $^{\circ}\text{C}$ and above over most parts of West Rajasthan, Arunachal Pradesh, Nagaland, Manipur, Lakshadweep, Andaman & Nicobar Islands, some parts of Assam & Meghalaya, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Kerala, -2 to 0 $^{\circ}\text{C}$ over most parts of Gujarat, Madhya Pradesh, East Rajasthan, Mizoram, Tripura, Konkan & Goa, Coastal Karnataka, Kerala, some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, New Delhi, Uttar Pradesh, West Bengal, Andhra Pradesh, Interior Karnataka, Madhya Maharashtra, Marathwada, -8 to -4 $^{\circ}\text{C}$ over most parts of Jharkhand, Orissa, some parts of Bihar,

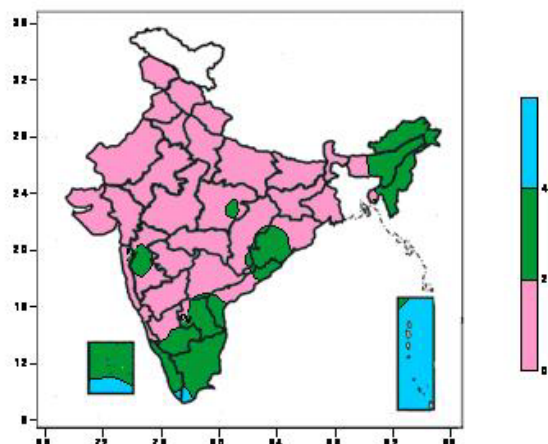
Orissa, Marathwada, Vidarbha, 8 to 12°C over most parts of Himachal Pradesh, some parts of Jammu & Kashmir, 4 to 8°C over some parts Jammu & Kashmir, 16°C to 20°C over remaining parts of the country.

Gangetic West Bengal, Chhattisgarh, Madhya Maharashtra, Interior Karnataka, Rayalaseema -4 to -2°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 28.10.09



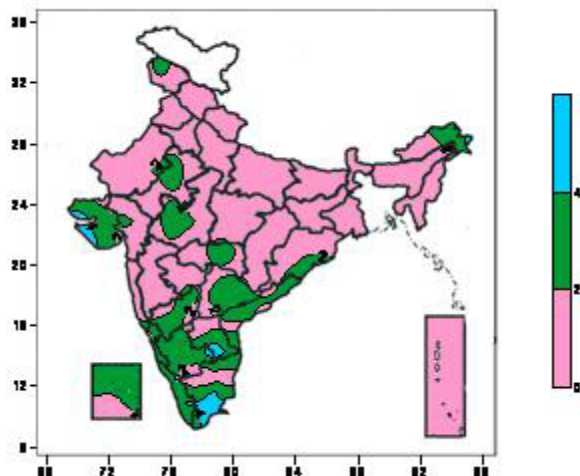
Cloud amount (okta) over India for the week ending 28.10.09



Relative humidity more than 80% over most parts of Andaman & Nicobar Island, some parts of Telangana, Lakshdweep, 40 to 60% over most parts of Punjab, Haryana, Delhi, East Rajasthan, Gujarat, Saurashtra & Kutch, Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Interior Karnataka, some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, Uttar Pradesh, Jharkhand, Andhra Pradesh, Tamil Nadu, Coastal Karnataka, Konkan & Goa 20 to 40% most parts of West Rajasthan, some parts of East Rajasthan, Gujarat, Saurashtra & Kutch, 60 to 80 % over remaining parts of the country.

Cloud amount 4 okta and above over most parts Andaman & Nicobar Island, some parts of Tamil Nadu, Kerala, Lakshadweep Islands, 2 to 4 okta over most parts of North East India, Rayalaseema, Tamil Nadu, Kerala, Lakshdweep Islands, some parts of East Madhya Pradesh, Madhya Maharashtra, Orissa, Chhattisgarh, Telangana, Coastal Andhra Pradesh, South Interior Karnataka, Andaman & Nicobar Islands. 0 to 2 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 28.10.09



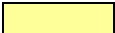
Wind speed ranged between 4 knots and above over some parts of Saurashtra & Kutch, Andhra Pradesh, Tamil Nadu, 2 to 4 knots over most Parts of Saurashtra & Kutch, South India, some parts of Jammu & Kashmir, Rajasthan, West Madhya Pradesh, Gujarat, Marathwada, Vidarbha, Orissa, Arunachal Pradesh, 0 to 2 knots over remaining parts of the country.

Comparison of weekly rainfall distribution (in % dep.) in different Met. Sub-divisions during past 5 weeks

Sub-division	Cumulative Rainfall for the period									
	30 th September		7 th October		14 th October		21 st October		28 th October	
	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.
A & N Islands	113	78	99.0	69	67.0	-27	54.0	-79	55.6	-21
Arunachal Pradesh	67	-56	71.7	-79	3808	98	32.1	-80	21.2	-96%
Assam and Meghalaya	58	-37	60.9	-59	44.6	103	23.2	-49	20.9	-99%
NMMT	48	-21	52.4	44	41.8	58	17.3	61	23.6	-100%
SH West Bengal & Sikkim	75	-70	69.5	43	44.8	276	24.9	-98	13.1	-100%
Gangetic West Bengal	69	-49	47.9	53	32.1	-68	24.0	-98	17.7	-100%
Orissa	45	1	39.8	172	28.5	-81	28.0	-99	17.8	-100%
Jharkhand	45	-30	36.1	159	22.8	-11	15.4	-100	8.0	-100%
Bihar	41	-36	35.0	-46	13.7	293	13.3	-99	4.8	-100%
East Uttar Pradesh	29	-19	25.2	259	16.8	-51	6.5	-100	1.1	-100%
West Uttar Pradesh	21	-19	20.5	218	14.3	-100	3.1	-97	0.9	-100%
Uttarakhand	30	-24	23.1	313	21.3	-92	5.9	-99	3.2	-100%
Haryana, Chandigarh & Delhi	18	-18	8.3	-85	5.5	-100	0.9	-100	1.0	-100%
Punjab	27	-27	12.1	-81	6.8	-100	1.3	-100	0.8	-100%
Himachal Pradesh	30	-29	18.4	-57	14.9	-93	6.2	-61	5.0	-100%
J & K	22	-21	9.4	-45	9.9	-84	8.0	-99	6.6	-99%
West Rajasthan	6	-6	2.1	-100	0.8	-98	0.5	-89	0.8	-100%
East Rajasthan	13	-13	6.8	93	5.9	-99	1.4	-85	0.9	-100%
West M. P.	22	-21	13.2	399	12.0	-100	4.3	-99	1.1	-100%
East M. P.	21	-18	17.1	219	11.6	-99	5.8	-87	2.6	-100%
Gujarat region	28	-28	8.8	218	8.9	-92	2.0	-100	1.3	-100%
Saurashtra & Kutch	12	-12	5.3	-43	3.9	-100	2.0	-100	1.7	-100%
Konkan and Goa	78	-36	42.5	567	30.6	-52	16.5	-91	11.9	-99%
Madhya Maharashtra	42	-10	25.6	265	19.9	-79	13.1	-92	9.3	-100%
Marathwada	44	-13	24.4	150	19.7	-93	10.1	-100	10.4	-100%
Vidarbha	28	-9	21.6	84	14.4	-99	7.7	-100	6.9	-100%
Chhattisgarh	33	-18	26.2	-54	17.0	-93	12.1	-100	9.3	-100%
Coastal A. P.	43	9	46.5	14	34.2	-61	56.3	-100	46.1	-96%
Telangana	39	26	31.0	194	17.3	-83	15.7	-99	16.4	-100%
Rayalseema	34	22	36.2	82	27.1	-54	24.5	-99	27.2	-97%
TamilNadu & Pondicherry	30	-9	34.5	-80	37.4	-45	49.8	-88	46.3	-92%
Coastal Karnataka	72	67	56.0	317	41.9	-58	33.0	-81	35.3	-100%
N. I. Karnataka	42	51	36.2	405	23.2	-59	16.4	-99	22.0	-100%
S. I. Karnataka	37	17	39.4	69	36.2	-25	27.9	-89	27.3	-99%
Kerala	72	-2	59.3	173	69.1	-79	70.0	-76	68.7	-85%
Lakshadweep	39	-22	35.2	56	34.1	-99	34.9	-93	33.2	-65%

The subdivision like Punjab, Himachal Pradesh, Jammu & Kashmir received scanty / deficient rainfall in last 5 weeks; Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Bihar, Uttarakhand, Haryana, Chandigarh & Delhi, West Rajasthan, West Madhya Pradesh, Gujarat, Saurashtra & Kutch, Konkan & Goa, Chhattisgarh, Tamil Nadu & Pondicherry and Lakshdweep Islands received scanty / deficient / no rainfall in 4 out of last 5 weeks; Andaman & Nicobar Islands, Sub Himalayan West Bengal, Orissa, Jharkhand, Uttar Pradesh, East Rajasthan, East Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Andhra Pradesh, Karnataka and Kerala received scanty / deficient / no rainfall in 3 out of last 5 weeks. Remaining States received normal / excess rain in 2 or more weeks during last 5 weeks.

	(20% or more) excess rainfall
	(-19 to +19%) normal rainfall
	(-20 to -59%) deficient rainfall

	(-60 to -99 %) scanty rainfall
	(-100%) no rainfall
	** Data not available

Zonewise Agromet Advisories

NORTH WEST INDIA [J & K, H. P., UTTARAKHAND, PUNJAB, HARYANA, DELHI, UP]

Himachal Pradesh

- **Realised Rainfall:** Most of the districts of the State received deficient/scanty/no rainfall except Lahaul and Spiti which received normal rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather over the State.
- **Major Kharif Crops:** Rice, Vegetables
- **Crop Stage:** Maize (harvesting), vegetables (early vegetative), rice (harvesting). This is proper time for sowing of *rabi* crops
- **Crop Condition:** Good.
- **Advisory:**
 - Farmers are advised to complete harvesting of *kharif* crops.
 - Farmers are advised to complete sowing of berseem and shaftal.
 - It is optimum time for sowing of wheat crop with varieties like HPW-89,147 VL-738 and HS-240 barley HBL-316 and Dolma and oat (Palampur-1) can be sown.
 - Sowing of Gobhi sarson may be completed.
 - For the control of weeds in early sown wheat spray Isoproturon @ 80g in 30-32 litres of water per kanal. Termite affected plots may be treated with 80 ml chloropyrophos mixed with 1kg of sand and spread over one kanal area of plot. The sowing of gram and lentil in lower belt may also be completed
- **Major Seasonal Crop:** Fruit crops, Flower crops and Vegetables
- **Advisory:**
 - Farmers are advised to undertake field preparation and planting for new orchards.
 - In apple spray 1 per cent urea (2 kg urea per 200 liters of water) before leaf fall so that there will be good fruit setting and hence production during the next year.
 - Farmers are advised to undertake field preparations and sowing of winter vegetables like radish, turnip, carrot. Complete sowing of leafy vegetable seeds.
 - Undertake weeding, intercultural operations and top dressing of fertilizers.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - To control the pre-mature leaf fall and fruit-blotch diseases spray Mancozeb @ 700 ml or Ziram @ 600 ml per 200 liters of water. This spray also avoids the formation of any spot on the fruits and also saves from diseases during the storage period.
 - red spider mites in carnation, for control spray cypermethrin or nuvacron @0.05%.
 - leaf minor in new growth of citrus. For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water.

Uttarakhand

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather over the State
- **Major Kharif Crops:** Rice, Soyabean, Groundnut, Tur, mung, sesame.
- **Crop Stage:** Rice (grain formation/maturity stage), pulses (pod maturity), oilseeds (vegetative/flowering)
- **Crop Condition:** Good
- **Advisory:**
 - Farmers are advised to complete harvesting & threshing operations of late transplanted matured rice crop during this week. Stop irrigation 15 days prior to harvest.
 - Continue harvesting matured pulse crops.

- **Major Seasonal Crop with stage:** Sugarcane ratoon (planting/early vegetative), cabbage, garlic, tomato (vegetative), French bean (early vegetative). This is proper time for sowing of *rabi* crops like wheat.
- **Crop Condition:** Good
 - **Advisory:** Due to favourable temperature condition farmers are advised to undertake sowing of wheat in mid and high hill during this week. Under irrigated conditions select only high yielding varieties like VL-804, VL-738, VL-421, HS-240, UP-1109. However, for un-irrigated conditions, the recommended Wheat varieties are VL-616, HS-277, VL-829 etc.
 - If irrigation facilities are available then give light irrigation to early sown 30 days toria & mustard crops & top dress 2 kg urea per nali & do weeding operations & also do thinning for better plant growth.
 - Under favourable soil moisture and temperature conditions planting of winter sugarcane crop is advised. After proper soil moisture do ploughing of the bare fields, go for soil sampling for soil testing for applying balanced fertilizer at the time of sowing and arrange timely sown sugarcane varieties like COS-8436, COS-88230, COS- 96258, COS-95255, COS 96268 and medium to late sown varieties like Co Pant 84212, Co Pant 90223, Co Pant 96219, COS-767, COS 97222 etc.
 - Farmers are advised to complete sowing of Mustard crop with improved varieties like Rohini, Kranti, Krashna, Vardan etc. during this week under optimum soil moisture..
 - Continue sowing of vegetable crops like vegetable pea, coriander, spinach, radish, menthe etc from end of this week as temperature conditions will remain favorable for sowing of these crop Arrange certified seed of vegetable crops from certified agency or select local or recommended varieties of vegetable pea like VL Ageti Mater-7, Vivek Mater-10, Pant Subjee Mater-3, Azad Mater-3 and Arke. Since dry weather is expected during this week, then farmers are advised to give irrigation in early sown crops.
 - Farmers can continue planting of Potato during this week also. Select high yielding varieties like Kufri Jyoti, Kufri Ashok or Kufri Anand. Top dress Urea as per the need and stage of the vegetable crops sown earlier.
 - Farmers are also advised to go for sowing of Rai during this week with seed rate of 600 g / Nali. They can also transplanting of Rai seedlings grown earlier. Ensure that seedling height must be 10 cm and line to line distance must be 30 to 40 cm and plant to plant distance must be 15 to 20 cm.
 - **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of sucking pests in Rajmah, spray a solution of 0.3 ml of 200 SL-Emidachloprid dissolved per litre of water.
- **Animal:** Give balanced feed to milking animals and clean properly their place of sitting.

Punjab

- **Realised Rainfall:** The State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** Rice, maize, guar, til, urd, bajra, cowpea, cotton
- **Crop Stage:** Rice (grain development/maturity), pulses (pod development/maturity (boll formation), soybean (pod formation), maize (cob formation), toria(early vegetative).
- **Crop Condition:** Rice crop is in satisfactory condition.
- **Advisory:**
 - As there was no significant rainfall during last week and mainly dry weather is likely in the State during next five days, apply irrigation to the standing crops.
 - As weather is expected to be dry in coming days, farmers can complete harvesting of the crop. After harvesting, don't burn paddy straw as it leads to environmental pollution as well as health hazards besides destroying valuable nutrients, flora & fauna etc.
 - The sowing of timely sown wheat varieties PBW 17, PBW 502, PBW 343, TL 2908 and durum wheat varieties PDW 291, PDW 274 and PDW 233 may be started in first week of November. It is the right time for pre sowing irrigation to wheat.

- The optimum period for sowing raya and gobhi sarson. PBR 91 and PBR-210 are recommended for South western regions only.
- Complete sowing of PDG 3, PDG 4 and GPF 2 varieties of gram under rainfed conditions.
- Complete sowing of berseem during this period. Mix oats and sarson/raya in barseem to get first cutting early. It should be free from kashni seed.
- In light textured soils sowing of taramira may be continued
- Undertake weeding, intercultural operations and application of fertilizers.
- **Major Seasonal Crop with stage:** Sugarcane and Vegetables
- **Advisory:** Undertake weeding, intercultural operations in sugarcane and cotton.
 - It is the time for planting of autumn sugarcane. Complete planting of sugarcane in the first fortnight. Intercropping of wheat, raya, toria, gobhi sarson, pea, gram, potato etc. can be done successfully in this crop for better returns to the farmers.
 - This is the right time for transplanting of main season varieties of cauliflower, cabbage and broccoli. Continue sowing of European varieties of carrot, radish, turnip and leafy vegetables.
 - This is suitable time for planting of evergreen fruit plants like sweet orange, lime, ber, amla & guava. Newly planted plants should be watered at frequent intervals. Remove the sprouts below the bud. Spray ber trees with 0.25 % wettable sulphur (250 g in 100 litres of water) or 0.05 % karathane 40 EC (50-80ml in 100 litres of water) or Bayleton for the control of powdery mildew.
 - **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - jassid and white fly in cotton. Spray with recommended pesticides, if required.
 - bacterial leaf blight of rice has appeared in the farmers field. Farmers are advised to regulate water in the fields to check its further spread.
- **Animal Husbandry:** Feeds to be protected from fungal contamination and wet feeds to be dried and fed. Milch animals tend to come in heat during this season. So animals should be checked in morning and evening for the heat.

Haryana

- **Realised Rainfall:** The State received deficient/scanty/no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** Rice, maize, guar, cotton
- **Crop Stage:** Rice (grain development/maturity), pulses (pod formation/development), bajra (vegetative), toria (early vegetative).
- **Condition:** Satisfactory
 - **Advisory:** Maintain standing water in rice field. Stop irrigation 15 days prior to harvest of rice.
 - As there was no significant rainfall during last week and mainly dry weather is likely in the State during next five days, apply irrigation to the standing crops.
 - Undertake hoeing and weeding in the standing crops.
 - Prepare the field and arrange for certified seeds of raya varieties: RH 30, Varuna, RH 8113 and RH 8812 (Luxmi) for sowing.
 - Prepare the field and start the sowing of wheat crop with certified seed of the varieties: WH 711, WH 542, PBW 550, DWR 17, PBW 343 and UP 2338. The right time for timely sowing of wheat crop is up to 15th November.
 - Complete planting of winter sugarcane, varieties: COH 56, COH 64, COH 99, COH 119, CO 7717 and COS 8436. Apply 45 kg Urea or 80 kg Kisan Khad and 125 kg Single Super
 - Sowing of oat & barseem for fodder may be done between mid of October to mid of November.
 - Prepare the land and undertake sowing of berseem.
 - Sowing of winter sugarcane may be done up to this week.
 - **Major Seasonal crop with stage:** Spring sugarcane (early vegetative/vegetative), vegetable crops (vegetative), cotton (boll formation)
 - **Crop Condition:** Good
- **Advisory:**

- Undertake hoeing and weeding and apply the remaining dose of nitrogen fertilizer to the sugarcane.
- Farmers are advised to undertake weeding and hoeing in cotton and intercultural operations in tomato, onion and chilli.
- Feed the animals with 50 to 100 grams good quality minerals mixture to protect from diseases.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
- sawfly and burgada (Dholia) in younger plants of mustard than spray 200 ml malathion 50 EC or 400 ml Endosulphan 35EC in 200 lt. of water/acre.
- jassid in cotton crop, spray the crop with recommended insecticide by the University if there is incidence of jassid.
- bacterial blight in guar, farmers are advised to spray the crop with 400ml Blitox and 30 grams of Streptocyclin in 200 liters of water per acre.
- **Animal Husbandry:** Farmers are advised to supplement the deficiency of nutrients through concentrates feed and 50 to 100 gram good quality mixture of minerals per day may be given for better animal productivity.

Delhi

- **Realised Rainfall:** The State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** vegetables and rice
- **Crop Stage:** vegetative/grain formation; tillering/panicle initiation (late paddy)
- **Crop Condition: Satisfactory**
 - **Advisory:** In the areas where paddy crop is about to mature, stop irrigation two weeks before harvesting. After harvesting crop should be dried in the field for 2-3 days and thereafter threshing should be done. Grains should be properly dried to right moisture level before storing.
- **Crop Condition: Good**
 - **Advisory:** Sowing of gram can be taken up in this week. Seed rate: - 60-80 kilogram for small and medium sized varieties and 80-100 kilograms for big sized varieties. Spacing to be maintained is 30-35 from row to row. Varieties:- Kabuli type - Pusa 267, Pusa 1003, Pusa Chamatkar; local type – C235, Pusa 246, P.B.G. 1, Pusa 372. Before sowing, seed should be treated with *Rhizobium* culture and phosphorus solublesing bacteria.
 - Present temperature is suitable for sowing of pea for vegetable purpose. Recommended cultivars: - Azad Matar-1, Pant Matar-3 and Bournville.
 - Weather conditions are suitable for sowing of potato. Selection of cultivars can be done on the basis of need. Cultivars: -Kufri Badshah (Late blight tolerant), Kufri Jyoti (Short duration), Kufri Alankar, Kufri Chandramukhi. Row to row × plant to plant spacing of 45cm×20cm or 60cm × 15 cm is advised. Seed treatment with 2 gm Mancozeb and 1 gm Carbendazim mixed per litre of water per kilogram of seed for five minute should be done. Thereafter, seeds should be dried in shade before planting in the field.
 - Sowing of *rabi* maize may be taken up in this weather conditions. Seed rate: 25-30 kilogram per hectare. Spacing: - row to row- 60 cm and plant to plant 20 cm. Synthetic cultivars :- Ganga 11, Deccan 103, Decan 105 and composite cultivars – Dhawal, Pratap 1. Before germination of seeds spraying of Atrazine @ 1 kilogram active ingredients per hectare is advised for controlling weeds. Intercropping with short duration crops is advised.
 - Farmers are advised to procure good quality seeds of mustard. Recommended cultivars are for irrigated conditions- Rohini, Pusa Jaikisan, Pusa Bold, Vardan, Jaggannath, Jawahar and for rainfed conditions: Pusa Barani, Pusa Aghrani, RH 10. After ploughing the field planking should be done. Seed rate: - 1.5-2 kg per acre. Check that moisture level in the soil is appropriate for proper germination; otherwise apply pre sowing irrigation.
 - Sowing of green gram can be done in this weather conditions. Cultivars: - Narendra Masoor -1, Seera, Jwahr Masoor- 3, H.U.L-57. Seed treatment with *Rhizobium* and Phosphorus solublesing bacteria is advised.

- Present weather conditions are suitable for planting of winter sugarcane. Cultivars: - CoS- 238, 97261, 96268, Co-98014 (Karn 1), and CoJ 64. Row to row spacing should be 90 cm. Potato, mustard, gram, pea, wheat, greengram may be taken as intercrop.
- Transplanting of mature tomato seedlings may be done in ridges. Spraying of Pendimethalin @ 1 kg active ingredients per hectare for two days after transplanting can be done to control weeds.
- Sowing of Nantes group of cultivars of carrot can be done in this weather conditions.
- Present weather conditions are suitable for sowing of spinach, coriander and mustard for leafy vegetable. Recommended cultivar for coriander: - Pant Haritama and Azad Dhan 1. Before sowing of coriander, the seed should be separated into two cotyledons.
- Keeping in view the temperature, seed bed preparation for cauliflower (snowball cultivar group), lettuce, leak, cabbage and broccoli crop may be done. Seed should be sown in raised beds after proper seed treatment.
- Sowing of European group of radish such as Pusa Mridula, Japanese White and Pusa Himani, Crimson Globe cultivar of beetroot and snowball cultivars group of turnip can be done.
- Sowing of oat and barseem for fodder purpose can be done keeping in view of temperature trend. Cultivars (Oat)- J.H.O-822, O.L.-9, Pusa oat-5 and barseem – Vardan, Buland Barseem-1, Masakali, B.L., J.B-3. Seed rate: - Oat 80-100 kilogram per hectare and barseem -25-30 kilogram per hectare
- **Plant Protection:** Due to high relative humidity, infection of powdery mildew may occur in cucurbitaceous crops. Two to three spraying of Dithane M 45 or Ridomil @ 2-5 gm per litre at 8-10 days interval is advised.

Uttar Pradesh

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State
- **Major Kharif Crops: East UP:** Rice, mung, jowar, bajra.
- **West UP:** Rice, groundnut, urd, mung and vegetables
- **Crop Stage:** Rice (grain development/maturity), groundnut, urd, mung and vegetables (pod/grain development), maize (cob development)
- **Crop Condition:**
- **East UP:** Satisfactory
- **West UP:** Satisfactory
- **Advisories:**
 - As there was no significant rainfall in the State during last week, apply irrigation to the standing crops at flowering/grain formation stage.
 - Continue harvesting matured crop of rice, jowar and bajra. Stop irrigation 15 days prior to harvesting of rice.
 - Plucking of beans as per maturity may be done in soya bean along with marketing work and storing may be done after drying well.
 - **Major Seasonal Crop with stage:** Sugarcane (grand growth) and vegetables (vegetative/fruitlet), mango (fruit setting). This is proper time for sowing of *rabi* crops.
- **Crop Condition:** Good
- **Advisory**
 - Undertake weeding, intercultural operations and application of fertilizers in the standing crops like sugarcane, vegetables and mentha.
 - Complete sowing Barseem at earliest.
 - Sowing of advance varieties of Rai, Mustard may be done after preparing the field and purification of seeds
 - Sowing of Garlic may be done after purification of seeds at the seed rate 500- 700 kg seeds/ hectare at distance 15x7.5 cm.
 - Sowing of Pea may be done after purification of seeds and take seeds 120 – 130 kg / hectare for early varieties and 80- 100 kg/ hectare for late varieties

- Complete sowing of early varieties of potatoes like Kufri Chandramukhi, Kufri Bahar, Kufri Sadabahar, Kufri Ashok.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- fruit borer in tomato and brinjal, spray the solution of Carbaryl @ 2 g / litre of water.
- gundhi bug in rice, farmers are advised to take adequate plant protection measures.

J & K

- **Rainfall Forecast:** Mainly dry weather is likely over the State.
 - **Major Kharif Crops:** Rice, maize, vegetables
 - **Crop Stage:** grain formation (rice); pod maturity (pulses); maturity/harvesting (maize)
 - **Crop Condition:** Satisfactory.
 - **Advisory:**
 - Take up timely harvest of matured crops like blackgram and greengram.
 - Irrigate the late transplanted rice crop if crop is at grain formation/development stage.
 - Undertake harvesting of apple.
 - **Major Seasonal Crop with stage:** Vegetables (vegetative/flowering/fruitlet). This is proper time for sowing of *rabi* crops.
 - **Crop Condition:** Good.
 - **Advisory:** Conserve moisture by taking up 2 to 3 ploughings followed by planking to maintain sufficient moisture for *rabi* cropping.
 - Farmer can go for sowing of mustard crop (optimum sowing time). The recommended varieties are RLM-514, RLM-619, Kranti, Varuna and RH -30 with seed rate @ 5kg/ha. Apply half dose of nitrogen and full dose of phosphorous & potash at the time of sowing. In areas more than 1500 m in altitude, KOS-1 and KS-101 (Gulcheen) should be selected.
 - Irrigate the toria crop followed by top dressing of 1st dose of urea if crop is 25-30 days old. Hoeing & weeding in toria crop.
 - Sowing of gram (var. C-235, K-468, Gourav and PBG-1) and field pea (var. T-163, PG-2, Rachna, HFP-3) can be done in conserved moisture condition. But before sowing inoculate the seed with Rhizobium culture in order to increase the yield and maintain the soil fertility.
 - Sowing of gobi sarson may be done up to the first fortnight of October with varieties such as GSL-1, GSL-2 and DGS-1.
 - Undertake sowing of early variety of wheat (PBW-396, PBW-175, IWP-72 and RSP-81 (jitto) for rain fed areas and HD2428, HD2329 and CPAN3004 for irrigated areas.
 - Farmers are also advised to raise nursery for onion crop (Pusa Red).
 - Undertake sowing of lentil (Cv RLM-514, RLM-619, Kranti, Varuna and RH -30) during this period with seed rate of 5kg/ha with recommended dose of fertilizer.
 - Sowing of pea with varieties T-163, PG-2 and Rachna may be done from mid October to mid November in rows 30 cm apart keeping a plant to plant distance of 10 cm.
 - Farmers can also go for sowing of barley crop in rainfed areas under conserved moisture condition during these days.
 - Irrigate the vegetable crop and application of urea as top dressing in cauliflower, cabbage & cauliflower and knoll-khol @ 60, 60 & 50 kg/ha, respectively. Transplanting of knoll khol & onion can be done during these days.
 - Intercultural operations, application of fertilizers and pesticides may be continued.
- Plant Protection:** Weather conditions are favourable for
- leaf curl/stigmia blight in peaches/plum/apricot and almond, spray copper oxychloride (0.3%) or captan (0.2%) before leaf fall.
 - flea beetle in toria crop, spray Carbaryl 50 WP @ 2gm/ltr or Malathion @ 0.05 %.

- anthracnose and die back diseases in citrus and mango, soft rot, anthracnose and scab in guava and anthracnose in grapes, spray with copper oxychloride (0.3%) at 15 days interval. Young trees and nursery plants may also be given chemical protection if needed.

Rajasthan

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State
- **Major Kharif Crops:**
- **East Rajasthan:** Cowpea, bajra, maize
- **West Rajasthan:** Pearl millet, sorghum, maize, cluster bean, Sesamum, Pigeonpea, Groundnut
- **Crop Stage:** grain development
- **Crop Condition: Satisfactory**
- **Advisory:** Apply irrigation to the standing crops at grain formation stage as there was no significant rainfall during last week and dry weather is likely to prevail during next five days over the State
- Undertake hoeing, weeding and top dressing in maize and sorghum with application of urea
- **Major Seasonal Crop with stage:** vegetable crops (flowering / fruiting / harvesting)
- **Crop Condition: Good**
- **Advisory:** Undertake intercultural operations in sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger.
- Sow seeds in nursery for raising seedling of autumn vegetables. Use following improved varieties for nursery sowing: Tomato: Pusa Rubi, Pusa Early and Vihar. Brinjal: Pusa Summer Prolific Round, Pusa Summer Prolific Long, Meghdoot, Navin and Arka Bahar. Cucumber: Balam and Pusa Sahyog. Smooth gourd: Chikni and Nasdar.
- Undertake preparation of seed bed should be done for raising nursery of chilli and brinjal for Rabi season.
- Undertake sowing of rapeseed, mustard at vapsa condition using 5-6 kg/ha certified seed of HYV of rapeseed, mustard viz. NRCDR-2, Urvashi, Pusa Jai Kisan, Laxmi, Rohini, NRCHB 506, NRCHB 101, Maya and treat seed with Apron 35 SD @ 6g/kg seeds or 2% garlic bulb extract.
- Undertake sowing of barley at vapsa condition using 100-125 kg/ha certified seed of HYV of barley viz. RD 2035, RD 2052, RD 2503, RD 2668, BL 2 and treat seed with Thirum @ 3g/kg seeds.
- Right time for planting nursery of late cauliflower, cabbage & rabi onion and sowing of carrot, radish & garlic.
- Undertake sowing of wheat, select varieties among Raj 1482, Raj 3077, HD 2329, HD 2009 (Arjun) and PBW 343
- Undertake sowing of gram, lentil, pea, Lucerne and Taramira.
- **Plant Protection:**
 - Green gram, moth bean & cowpea crop may be affected with yellow mosaic virus disease. To control this disease spray Dimethoate 30 EC @ 1.0 litre per hectare
 - Spray a solution of Acephate 70 SP @ 1 g or Profenophos @ 3 ml per litre water on calm and clear days to control mealy bug in okra.
 - In clusterbean aphid attack seen in the fields, spray monocrotophos @ 250ml/bigha or daimethoate 30EC @ 300ml/bigha
 - Blight on tomato, spray Mancozeb 2 gram or Copper Oxy Chloride 3 gram per litre of water.
 - Sucking pests and boll worms on cotton, spray Carbaryl 50 % @ 2.5 kg/ha or quinalphos 25 EC @ 1.40 lit./ha and for parawilt, apply 1-2% urea as drenching.
 - Bacterial leaf blight on paddy, spray Copperoxychloride @ 2.5g/liter water + streptocycline @ 1.5g/ liter of water.
 - Fruit fly in guava, spray 0.1% solution of Malation 50EC to manage.
 - Painted bug & saw fly in already sown mustard crop, broadcast endosulfan 5% dust or quinalphos 1.5 % or methyl parathion 2% dust @ 20-25 kg per hectare.

EAST INDIA [JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]

Bihar

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** Rice, urd, sunflower, maize and pigeon pea
- **Crop Stage:** Rice (grain formation), maize (cob formation). This is proper time for sowing of rabi crops.
- **Crop Condition:** Good
- **Advisory**
 - The minimum temperature has come down to 15-16°C, about 4 to 5 °C lower than the normal value. Such low minimum temperature may harm the paddy crop which is at milking and grain formation stage and leading to producing more chaffy grains per spikelet. Farmers are advised to maintain optimum moisture in the fields so that the ill effects due to low temperature are minimized and the standing crops do not suffer.
 - Give top priority in the harvesting and threshing of matured paddy crop.
 - Continue the field preparation and sowing of *rabi* vegetables.
 - Weather is now favourable for sowing of gram, lentil and pea crops. Farmers are advised to continue the sowing of these crops. Rajendra chana, K.P.G. 59, Pusa 256, RAU 52, KWR 108 are recommended varieties for sowing of gram. Pusa 25, Pant L 406, Mallika, Arun, Pant L 639 are recommended varieties of lentil. Seed treatment with Rhizobium culture is advised before sowing.
 - Temperature condition has also become favourable for sowing of sesamum in north Bihar. T 397, Shuvra, Garima, Sweta and Shekhar are recommended varieties for sowing. Use seed rate 15 to 20 kg per hectare.
 - Continue sowing of yellow sorson as weather is remaining very congenial for its sowing and good germination.
 - Continue the field preparation for sowing of rapeseed and mustard. Select RAUTS 17, Panchali, PT 303, Bhawani varieties of rapeseed and Rajendra Sorson 1, Swarna and 66-197-3 varieties of yellow sarson for sowing in north Bihar.
 - Farmers are advised to prepare the field for sowing of rabi maize crop. Shaktiman 3, Shaktiman 4, Laxmi, Deoki, Rajendra Shankar Makka 1 and 2, High starch and Ganga are recommended variety for sowing in the districts of north Bihar.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth), fodder maize, jowar, lobia and sudan grass (vegetative)
- **Crop Condition:** Good
- **Advisory:**
 - Undertake intercultural operations, application of fertilizers.
 - Weather condition is congenial for transplanting of Aghani, Pusa Dipali, Pusi, Patna Main and Pusa Shuvra varieties of cauliflower.
 - **Plant Protection:** Weather conditions are favourable for mild incidences of -
 - stem borer insects in brinjal crop. Farmers are advised to apply Endosulphan @1.5 ml per litre of water.

Jharkhand

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week..
- **Rainfall Forecast:** Mainly dry weather is likely over the State
- **Major Kharif Crops:** Maize, Arhar, Til, Ragi, Vegetables
- **Crop Stage:** Direct sown rice (grain development), Maize (cob formation), other *kharif* crops are at grain formation stage.
- **Crop Condition:** Good
- **Advisory:**
 - As there was no significant rainfall during last week, farmers are advised to apply irrigation to the crops.

- Undertake weeding, intercultural operations and top dressing.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth), This is proper time for sowing of *rabi* crops.
- **Crop Condition: Good**
- **Advisory:** Farmers are advised to undertake sowing of rai, toria, gram, peas, potato, mustard etc. Recommended varieties of rai are – Pusa Jaikishan, Shivani, Varuna, Kanti. Good varieties of toria are PT-303, Parechali, Bhavani. Good varieties of peas are- Arkel, Pant Uphar, Pusa Pragati etc. Good varieties of potato are - Kufri Ashoka, Kufri Chipsona-1, Kufri Chipsona-2. Recommended varieties of gram are- Pant G 114, KWR 108, KPG 59. Seed rate is 75 kg per hectare. Treat the seed before seeding with Rhizobium culture @ 5 packet of 100 gm/hectare. Give urea 44 kg, SSP-250 kg & MOP 34 kg/hectare. Recommended varieties of Mustard are Shivani, Varuna, Pusa bold, Kranti.
- In irrigated condition seeding of wheat can be done from end of October to 10th November. Varieties for irrigated conditions are – C-306, K-8027, HDR-77.
- Also undertake sowing of Cabbage varieties in Early type – Golden Acre, Early drum head, Pride of India. Late type – Late drum head Cauliflower Varieties are – Early – Pant Early, Pusa katki, Pusa Dipali. Seed rate is 600 – 700 gm/Hectare.

Orissa

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State
- **Major Kharif Crops:** Rice, ragi, arhar, maize, green gram, blackgram.
- **Crop Stage:** Rice (grain development), Pigeonpea (pod development), groundnut (pod maturity), cotton (vegetative), early sown maize (cob formation), green gram, blackgram (maturity)
- **Crop Condition:** Good
- **Advisory:** As there was no significant rainfall in most of the districts of the State, farmers are advised to apply irrigation to the crops.
- Conserve moisture where the crops are at maturity stage.
- *Kharif* groundnut is at maturity stage. Start harvesting the groundnut crop.
- Harvest the early sown black gram and green gram.
- **Major Seasonal Crop with stage:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative)
- **Crop Condition: Good**
- **Advisory:** Undertake weeding, intercultural operations and application of fertilizers.
- The current temperature is favourable for wheat sowing in inland districts. Grow HYV like Sonalika, UP-262. Use 40 kg seed/acre. Before sowing the seeds should be treated with 3 g Captan or Thiram/kg of seeds.
- Now the current temperature is optimum for sowing of Bengal gram. Use 25 kgseeds/acre. Grow the improved varieties like Gourav, Annegiri, Radhey Treat seeds with 2 g Carbendazim or 3 g Thiram per kg seed.
- The weather is optimum time for nursery raising of onion. Grow HYV like Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan , Arka Pragati, Agrifound light red, Agrifound dark, Punjab Selection, Patna white, Bombay white, Pusa white round etc. Use 4 kg seeds/acre. 200 m² is sufficient for nursery per acre.
- Sunflower is a profitable *rabi* oilseed crop. Now the time is optimum for sowing of sunflower . Grow high yielding varieties like Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH. Use 4 kg seeds/acre for high yielding varieties for rainfed condition, 3.5 kg for irrigated condition, 2-2.5 kg seeds/acre for hybrid varieties under rainfed condition and 1.5-2 kg seeds for irrigated condition. Sow the seeds in lines 30 cm apart.
- The weather is optimum for sowing of rainfed groundnut. Grow high yielding varieties. *Kharif* groundnut is at maturity stage Go for harvesting the crop.

- Dahlia comes to flowering 3 months after planting. It can be planted up to November
- Go for pyra cropping of green gram, black gram, lentil and mustard as the weather is optimum.
- Cole crop seedlings are at 3-week stage in the nursery. Go for transplanting in the main field.

West Bengal

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week..
- **Rainfall Forecast:** Dry/Mainly dry weather is likely over the State
- **Major Kharif Crops:** Rice, vegetables
- **Crop Stage:** pod development (pulse crops), *aman* rice (grain development), *aus* paddy (harvesting)
- **Crop Condition: Good**
- **Advisory:**
 - For medium duration *aman* rice farmers may give irrigation as no rain fall will occur in the coming days.
 - Arrange for harvesting matured crops like pulses.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), vegetable crops (transplanting)
- **Crop Condition: Good**
- **Advisory:**
 - Farmers are advised to apply top dressing of urea @ 30 kg/acre to cauliflower (Var: Micardo, White Barna) and hybrid cabbage (Var: Green Express).
 - Farmers are advised to undertake sowing of mustard
 - Undertake thinning and weeding in early sown toria keeping plant to plant distance at 10 cm. Spray 32g disodium octaborate tetrahydrate in 32 litres of water for 1 bigha crop.
 - Also undertake transplanting of brinjal and tomato in coastal saline zone
- **Plant protection:**
 - Weather conditions are favourable for the incidences of leaf folder and BPH in late transplanted *aman* paddy. To control leaf folder apply Lamdacyhalothrin 5EC @ 0.5 ml and for BPH (If it cross 10 per hill) apply Buprofezin @ 1.5 ml per litre of water. In this weather Blast disease may be severe. To prevent the disease apply Tricyclazole 0.6 gm per litre of water.

Sikkim

- **Realised Rainfall:** The state received scanty rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Seasonal Crop with stage:** **Rice:** grain development/maturity **Kharif Vegetables:** flowering/ fruiting/ harvesting; **Large Cardamom:** Capsule maturity/harvesting;
- **Crop Condition: Good**
 - **Advisory:** Farmers are advised to continue transplanting of rabi vegetable crops. Apply compost/FYM before transplanting of seedlings
 - Apply irrigation to the crops as there was no sufficient rainfall during last week.
 - Application of fertilizers, pesticides and intercultural operations may also be undertaken in standing crops like ginger.
 - Water level of 5 cm to at least 3/2.5 cm should be maintained in paddy fields for better yield.
- **Plant protection:**
 - Regular inspection may be carried out to observe caterpillar/shoot borer/shoot fly incidence, if any, and may be hand picked and destroyed mechanically or by burning.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM & T, ASSAM, MEGHALAYA]

Assam

- **Realised Rainfall:** Most of the districts of the States received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather over the State.
- **Major Kharif Crops:** *Sali* paddy
- **Crop Stage:** Rice (grain maturity)
- **Crop Condition:** Good

- **Advisory:** Start harvesting Sali rice as dry weather conditions prevail.
- Undertake sowing of wheat.
- Rape seed and mustard may be sown from mid-October to mid-November. Early sown crop can escape the attack of mustard aphids. Recommended varieties are M-27, TS-29, TS-36, TS-38 etc.
- Apply irrigation to the crops as there was no rainfall received during last week.
- Undertake sowing of *rabi* crops like pea, linseed, lentil (cv.T-397) etc and potato.
- Undertake sowing of toria varieties like M27, TS 36, TS 38 and TS 46 and niger. Collect quality seeds of field peas like Rasna, Arpana and Pant 14 and sowing can be done by this week.
- **Major Seasonal Crop with stage:** Vegetables (vegetative / flowering / fruiting / harvesting), early *ahu* rice (grain formation), maize (cob formation) and sugarcane (vegetative) fruit crops (maturity).
- **Crop Condition:** Good
- **Advisory:**
- Undertake sowing of *rabi* vegetables. Seeds of cabbage, cauliflower, knoll khol, tomato, brinjal etc., can be sown in nursery beds. Farmers are advised to sow early varieties of cauliflower (eg. Early Kuwari, Pusa Keteki, Pusa Dipali etc.).
- **Plant protection:** Weather conditions are favourable for mild incidences of –
 - leaf folder or stem borer in rice. When there is one damage leaf per hill due to attack of leaf folder or appearance of one adult hispa per hill is observed farmers are advised to spray Chloropyriphos 20EC @ 1.5ml per liter of water.
- Stem borer on *Sali* rice, spray Monocrotophos 40 EC @ 2 ml per litre of water in rainless period.
- Undertake land preparation for cabbage, cauliflower, knolkhol, Onion and garlic.
- Farmers affected by drought like situation during *khari*f season and those who could not grow Sali paddy in time, should concentrate on *rabi* crops and collect quality seeds of *rabi* pulses and oilseed crops like pea, rajmah, lentil, lathyrus, toria, linseed, niger etc.
- Undertake land preparation for raising tea nurseries.

Animal Husbandry: skin disease in cattle To control the disease, farmers are advised to wash the infected areas with potash and apply Himex ointment over the infected area.

Arunachal Pradesh

- **Realised Rainfall:** Most of the districts received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major *Khari*f Crops:** *Jhum* rice, WRC rice, millets
- **Crop Stage:** Rice, ragi (grain formation)
- **Crop Condition:** Good.
- **Advisory:**
- Apply irrigation to the crops as there was no sufficient rainfall during last week. Stop irrigation 15 days prior to the harvest of crops.
- Complete sowing of maize and pea.
- Land preparation and planting of potato may be completed.
- **Major Seasonal Crop:** Vegetables
- Harvest the matured vegetable crops.
- Arrange for picking matured fruits of apple. Kiwi, pine apple, etc.
- **Plant Protection:** Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS]

Andhra Pradesh

- **Realised Rainfall:** The state received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over Telangana; at isolated places over Coastal Andhra Pradesh; at a few places over Rayalaseema

- **Major Kharif Crops:** Cotton, soybean, jowar, black gram, green gram, pearl millet, finger millet, jowar, green gram, groundnut, sunflower, rice, brinjal, tomato and chillies.
- **Crop Stage:** grain formation (rice), pegging (groundnut), vegetative (cotton).
- **Crop Condition:** Good.
- **Advisory:**
- Additional dose of fertilizers (35 kg urea + 15 kg MOP per acre) may be applied where water logging was reported.
- Spraying 2% urea or 2% KNO₃ should be taken up two times at weekly intervals for partially inundated crop.
- **Major Seasonal Crop:** Sugarcane and Vegetables
- Farmers are advised to undertake intercultural operations in sugarcane and vegetables to keep the fields weed free.
- Farmers are advised to undertake sowing of redgram. Adopt closer spacing of 90X20 cm under delayed sowings. Suitable redgram varieties are LRG-41, LRG-30, LRG-38, Abhaya, Maruthi, ICPL 87, ICPL 312 etc. Also greengram / blackgram can be sown as rabi pulses. Suitable greengram varieties for sowing are LGG 410, LGG 460, LGG 407 and that of blackgram are LBG 17, LBG 20, LBG 22, LBG 623, LBG 402, LBG 611, LBG 685.
- **Plant protection:**
 - Present weather conditions are congenial for the incidence of late leaf spot in groundnut. Spray Mancozeb @ 3g or Hexaconazole @ 2ml/litre of water to control it. Also high incidence of leaf miner in groundnut is noticed; to control spray Imidacloprid @ 0.4 ml/l or Monocrotophos @ 1.6 ml/l of water.
 - Present weather conditions were congenial for the incidence of wilt in redgram. To control, spray Bavistin @ 1.0 gm/litre of water.
 - Prevailing weather conditions are congenial for the incidence of blast in rice. To control, spray Tricyclazole @ 0.6 g per litre of water.
 - Prevailing weather conditions are congenial for the incidence of scale insect and mealy bug. To control them, de trash the basal leaves and spray Dimethoate @ 1.7 ml or Malathion @ 3 ml per litre of water. Severe incidence of white fly is noticed in Krishna district. To control, Place yellow sticky traps to attract and kill white flies, Spray Triazophos or Profenophos @ 2 ml per litre of water.

Karnataka

- **Rainfall Forecast:**
- **Major Kharif Crops:** Jowar, Maize, Bajra, Redgram, Ragi, Greengram, Blackgram, Cowpea, Sesamum, Groundnut, Sunflower, Soyabean, Cotton.
- **Crop Stage:** grain development (rice), pod development (pulse crops), pod development (groundnut), cob development (maize).
- **Crop Condition:** Major crop loss was reported due to flooding during end of September in northern parts of the state.
- **Advisory:**
- Operations like earthing up, weeding is suggested. In addition to this, top dressing with nitrogen (urea) is suggested to boost up the crop growth for finger millet.
- **Major Seasonal Crop:** Sugarcane and vegetables. This is proper time for sowing of *rabi* crops.
- Undertake intercultural operations in sugarcane and early sown crops over coastal Karnataka to keep the field weed free.
- Sowing of sorghum, Bengalgram, safflower, sunflower and wheat can be continued in Bijapur and sorghum, wheat, chickpea, safflower in Dharwad.
- It is ideal time for planting banana, arecanut and cashew in Brahamavar.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –

- thrips and leaf blight in cotton. To control Thrips, spray the crop with 0.33 ml Imidachloprid or 1.7 ml Dimethoate dissolved in one liter of water. If the incidence of Thrips is more, then along with the above mentioned insecticides, mix DDVP @ 0.5 ml per liter of water. To manage Phytophthora leaf blight, spray the crop with 2 g. Dithane Z-78 or 2.5 g Dithane M-45 dissolved in one liter of water.
- *Helicoverpa* (Pod borer) pest in red gram; spray 2 ml neem seed origin insecticide or 0.3 ml Indoxicarb or 0.1 ml Spinosad dissolved in one liter of water. Spraying should be completed preferably before 2 PM and 1000 liter spray solution should be used for effective control of the pest. To manage wilt disease, drench the plant infected using solution prepared by dissolving 2 g of Carbandizem in one liter of water.

Kerala

- **Realised Rainfall:** Most of the districts of the state received scanty rainfall during last week.
- **Rainfall Forecast:** rain / thundershowers is likely at a few places over the State.
- **Major Kharif Crops:** Rice
- **Crop Stage:** sowing/transplanting (*mundakan* rice).
- **Crop Condition:** Good.
- **Advisory:**
 - Farmers are advised to continue transplanting of *mundakan* rice in the main field
- **Major Seasonal Crop:** Vegetables and plantation crops (coconut, arecanut, pepper and cashew). Time for planting of coffee and arecanut
- Farmers are advised to apply irrigation as there are no chances of rainfall during next five days
- Intercultural operations, application of fertilizers and pesticides may be continued on a non rainy day.
- Planting of arecanut seedling can be continued. Srimangla, sumangla and Mohitnagar are best suited and high yielding varieties.
- Transplanting of 20-25 days old seedlings of tomato, brinjal and chillies may be continued. Neem seed emulsion may be applied in the fields where stem borer infestation is more
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - In coconut, due to favourable weather conditions, as a prophylactic measure to control bud rot apply 1% Bordeaux mixture in the tender leaf axils on a non rainy day. Stem bleeding may become more severe. Farmers are advised to keep vigilance against Red palm weevil and rhinoceros beetle.

Tamil Nadu

- **Realised Rainfall:** Most of the districts of the state received scanty rainfall during last week.
- **Rainfall Forecast:** many places over the state.
- **Major Kharif Crops:** Groundnut, pulses and rice
- **Crop Stage:** pod development (pulses), picking (cotton)
- **Crop Condition:** Good
- **Advisory:**
 - This is the right time to take up sowing of cotton in Kovilpatti. Select the varieties like KC 2, KC 3, PA 255, SVPR 2, Bt cotton etc. which are suitable for rainfed tracts.
 - Farmers are advised to take paddy sowing through SRI mat nursery.
- **Major Seasonal Crop:** *thaladi* rice (tillering), sugarcane, banana and vegetables.
 - Farmers are advised to undertake intercultural operations like weeding and fertilizer application in *thaladi* rice after spells of rain.
 - Intercultural operations and application of fertilizers may be continued in vegetables and sugarcane after spells of rain.
 - Prevailing weather conditions are suitable for raising vegetable nursery (tomato, brinjal). Also climbers crops like gourds, beans and cluster beans and bhendi crop may be sown. For vegetable nursery, there should not be any stagnation of water in the beds. Thus, channels in between the raised nursery beds should be cleaned for proper drainage.

- Bendi growing farmers can increase the yield by spraying a solution containing urea and potash each @ 10 grams per litre for 10 days either during morning or evening for three times at an interval of 10 days.
- As rainfall is expected in next five days, sowing of pulses like redgram, greengram and blackgram may be taken up.
- **Plant Protection:**
 - Prevailing weather conditions are favourable for fruit borer incidence in brinjal crop. Hence spray endosulfan @ 3 ml/ ha.
 - Prevailing weather conditions are conducive for tikka leaf spot in groundnut. Hence spray carbendazim @ 500g/ha.
 - Present weather is conducive for mealy bug incidence in cotton and groundnut. Hence watch for the incidence and spray profenophos or dimethoate @ 2 ml /litre.
 - Present weather is conducive for turmeric leaf spot. Hence watch for the incidence and spray carbendazim @ 500g/ha.
 - Undertake plant protection measures after spells of rain.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Maharashtra

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice, ragi, cotton, Vegetables, Pulses, bajra, groundnut, tur, horse gram, soybean, jowar
- **Crop Stage:** *Kharif* paddy (early variety at grain maturity / harvesting, mid late & late variety at grain filling / maturity in Konkan & Kolhapur divisions and grain filing in other divisions), jowar (grain formation / maturity), *Kharif* cotton(boll formation / boll maturity), bajra(harvesting), groundnut (pod maturity / harvesting), soyabean (pod maturity / harvesting), irrigated cotton(picking in latur division and boll formation / boll maturity in other divisions) and rabi jowar, safflower, sunflower, gram, linseed (sowing/ germination and early sown jowar, safflower at early vegetative growth stage)
- **Crop Condition:** Good
- **Advisory:** Conserve moisture in the crop field at maturity stage.
 - Continue sowing of *rabi* jowar, safflower, sunflower, *rabi* gram in Vidarbha, Marathwada & Madhya Maharashtra.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Apply top dressing of N @160 kg/ha to new *adsali* sugarcane after 6-8 weeks of planting.
 - Undertake spraying, fertilizer application in the standing crops.
 - Continue harvesting of already matured bajra, soyabean, groundnut & early variety of rice.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
- Pod borer on red gram; for control spray 5% Neemark. If infestation is more, spray Endosulfan 35 %WSC @ 20 ml or Quinolphos 25 % WSC @ 16 ml or Fenthioate 50% WS @ 14 ml in 10 liters of water..
- *Dahiya* disease on cotton in Central Vidarbha zone, spray water soluble Sulphur@ 25 gm or Tridemarf @ 7 ml in 10 liters of water.
- Thrips & blast on onion in Western Maharashtra Scarcity Zone, spray Prophenophos @ 10 ml or Phipronil @ 15ml or Carbosulfan @10ml + Mancozeb @ 25 gm in 10 liters of water by 8 -10 days interval.

Gujarat

- **Realised Rainfall:** The State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice, castor, pigeon pea, cotton, groundnut, bajra, sesamum, cluster bean, pulses
- **Crop Stage:** Rice (grain formation), groundnut (pegging), maize (siliking/cob formation), cotton (square formation), bajra (vegetative/ flowering).

- **Crop Condition:** Crop condition is satisfactory
- **Advisory:**
 - Apply irrigation to the crops as there was no significant rainfall during last week and mainly dry weather is likely for the next five days.
 - Harvest the mature groundnut crop, if soil is hard than light irrigation can be applied before pulling.
 - Stop irrigation 15 days prior to harvest of rice. Harvesting may be started as soon as grains turn golden yellow colour.
 - Undertake sowing of mustard varieties Varuna, Gujarat Mustar-1, 2 and 3 before 15th October to escape mustard sawfly and thrip epidemic.
 - Undertake sowing of maize with variety GM-3 or Ganga.
 - Undertake sowing of garlic with variety Gujarat Garlic-1, Gujarat Garlic-10 or Gujarat Garlic-2 recommended @ 600-700 kg claws/ha.
 - Undertake sowing of cabbage, cauliflower and radish.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Undertake intercultural operation and application of fertilizer and plant protection measures. Undertake planting of different fruit crops like mango, sapota, pomegranate, lemon, guava, custard apple etc.
 - Farmers are advised for sowing of fodder sorghum.
 - Undertake top dressing in castor.
 - Continue sowing of clusterbean varieties like GC – 1, 2 at 30 cm spacing.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - mealy bug in cotton; to control uproot the affected plants and burn and eradicate parthenium weed as it is host plant.
 - For control of mango hopper spraying the crop with monocrotophos 10 ml/10 liter water
 - For control of stem rot in Banana drenching with carbendazim 0.05% @ 1 gm/lit water.
 - Powdery mildew and downey mildew in cucurbits. For control of powdery mildew two to three spray of wettable Sulphur @ 25 gm. /10 lit of water at weekly interval. For control of downey mildew spray copper fungicide @ 40 gm. /10 lit of water at an 8 to 10 days interval.
 - Color rot in groundnut, spray carbendazim @ 0.2 %.
 - mealy bug on cotton, uproot the affected plants then burn and eradicate weeds surrounding field as it is host plant and spray Emidaclopride @ 5 ml + Prophenofos @ 15 ml in 10 litre of water + adding solution of oil soap @ 10 gram. Dust Methyle parathion 2 % powder surrounding the crop stem.
 - Meli bug in orchard, dust Methyle parathion 2 % powder in soil after digging near the stem and Spray Emidaclopride @ 5 ml + Prophenofos @ 15 ml in 10 litre of water + adding solution of oil soap @ 10 gram surrounding the tree stem.
 - On cotton alternaria leaf spot disease, spray mencozeb + chlorothanolin @ 25 gmi in 10 liters of water, for thrips spray triazophos 20 ml or methyl-o-dematone 5 ml or dimethoate 10 ml in 10 liters of water and for the control of leaf blight, spray Mencozeb 25 gm or copper oxychloride 30 gm in 10 liters of water.
 - semi loopers in castor, spray chlorpyrifos 20 ml or endosulphan 20ml or quinalphos 20 ml in 10 liters of water.
 - Shoot borer in brinjal, remove and destroy infested shoot and arrange to put atleast 12 to 15 pheromone trap /ha. And spray endosulphan @ 21 ml or DDVP @ 5 ml/10 lit of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice, jowar, sunflower, jowar and soybean
- **Crop Stage:** grain formation/ development (rice), pod development/maturity (soyabean and other pulse crops).
- **Crop Condition:** Satisfactory.
- **Advisory:** Start harvesting the matured crops of soyabean and other pulses.
- Stop irrigation 15 days prior to the harvesting of rice.

- **Major Seasonal Crop with stage:** Sugarcane (cane development), cotton (boll development/ maturity) and vegetable crops (vegetative)
- **Crop Condition:** Good
- **Advisory:** Farmers are advised to transplant cabbage and cauliflower on the field.
- Farmers are advised to undertake transplanting of chilli, tomato and onion.
- Undertake pit preparation for planting of new orchard crops.
- Farmers are advised to apply FYM/vermicompost, N, P, K at recommended dose for fruit crops.
- Use Rhizobium culture for sowing of legume crops and use thiram and vebestene (1.5g each) as fungicides before the sowing of different Rabi crops also.
- Undertake sowing of gram.
- Undertake sowing of Safflower, gram etc. But barseem, safflower, sunflower can be sown.(if moisture is not sufficient for wheat & gram). Prefer wilt resistant varieties of Gram (JG-130, JG-218, JG-11, JG-16 etc.) for sowing.
- Undertake sowing of potato, onion , *rabi* crops and vegetable crops.
- **Plant Protection:**
 - Destroy YMV affected plants from soybean field and spray Methyle Demeton for controlling of vector.
 - Weather conditions are favourable for-
 - semi-looper in *kharif* crops; spray Trizophos 40 E.C. @ 2.0 ml/l for control.
 - sucking pest i.e. jassid, white fly etc. in *kharif* crops; spray Amydachloroprid 17.8 SL. @ 0.5 ml/l for control.
 - tobacco caterpillar in soybean crop, spray Profenophos 40 EC and cypermethrin 4 EC @ 1 lit/ha.
 - boll worm cotton crops, spray Profenophos 40% EC @ 3.0 ml/l.
 - girdle beetle/leaf defoliator in soyabean, spray Quinolpos 25 or Endosulphan 35 @ 1000 ml in 500 litre of water per hectare.
 - pyrilla in sugarcane or shoot borer, spray Melathyon 1.5 litre per hectare in 700-800 litre of water.
 - pod borer in pigeonpea, spray Profenophos 50 EC @ 1.5 l/ha.
 - Mealy bug in cotton, spray Prophenophos 2 ml per litre of water.
 - Leaf spot in fruit crop, spray of Dithane M45 (2 g/l) to avoid various fungal infections, spraying of copper oxychloride @3g/l should be done in acid lime orchards. Pruned the newly planted plant for good erect growth. If irrigation is available than water can be applied in newly planted plants. Protect citrus family plants from canker disease.
 - Fruit fly in ber, spray Endosulphon 35 EC @ 2 ml/l and second spray after 15 days for control.
 - Boll worm on cotton crops, farmers use pheromone traps to control male insect, if attack is increased spray Profenophos 40% EC @ 3.0 ml/l.
- **Animal Husbandry:** To control ticks and mite in cattle, sheep and goat, apply butox / deltox @ 4 ml / litre of water on the body in Jhabua and Dhar districts.
- Arrange vaccination for animals to protect from the disease Galghotu, Langadi and Anthrex in Sagar, Bhopal, Vidisha, Damoh, Raisen, Sehore.
- Ensure vaccination of animals against FMD, Brucellosis, *Hemorrhagic septicemia*, and Anthrax and small ruminants against PPR, swine fever and sheep and goat pox in Indore.
- Farmers should vaccinate there animals for Khurpaka-Muhpaka disease in Jhabua and Dhar.

Chattisgarh

- **Rainfall Forecast:** Mainly dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice, soybean, maize, sesamum, tur.
- **Crop Stage:** grain development (rice), cob development (maize), pod development/ maturity (pulse crops)
- **Crop Condition:** Good
- **Advisory:** Start harvesting the matured crops of pulses.
- Stop irrigation 15 days prior to the harvesting of rice.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), vegetables (flowering / fruiting / harvesting),

- **Crop Condition:** Good
- **Advisory:** Prepare the land for sowing niger, horsegram, linseed and toria
- Present weather conditions are suitable for the nursery sowing of vegetables like brinjal, tomato, chilli etc. Start transplanting as and when seedlings attain proper age.
- Farmers are advised to undertake intercultural operations, application of fertilizers and pesticides in early sown crops.
- **Plant protection:** Weather conditions are favourable for the incidences of leaf folder in arhar, farmers are advised to spray of chlorpyrifos @ 2 ml/litre of water