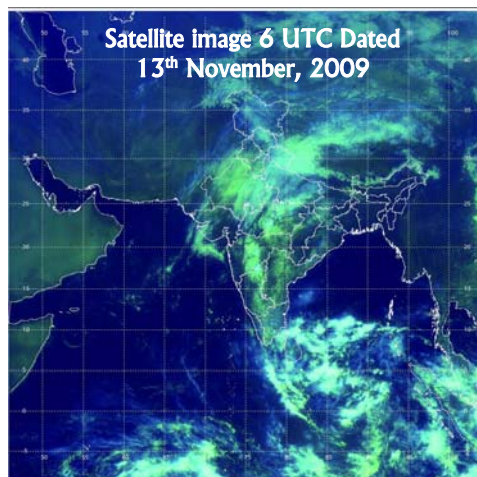




National Agromet Advisory Bulletin

Thursday, 12th November, 2009 (For the period 12th to 16th November, 2009)



Rainfall Forecast valid upto 0830 hours IST of 15th November, 2009

- **Many Places:** Kerala, Coastal Karnataka, West Madhya Pradesh, Konkan & Goa,
- **Few Places:** Himachal Pradesh, Uttarakhand, Punjab, Jammu & Kashmir, Orissa, Madhya Maharashtra, North Interior Karnataka, South Interior Karnataka, Rayalaseema, Tamil Nadu & Pondicherry, Marathwada, East Madhya Pradesh, Chattisgarh.
- **Isolated Places:** Gangetic West Bengal, Sikkim, Jharkhand, Uttar Pradesh, Haryana, Delhi, Rajasthan, North East India, Vidarbha, Gujarat, Coastal Andhra Pradesh, Telangana. Andaman & Nicobar Islands, Lakshadweep Island,
- **Mainly dry Weather:** Saurashtra & Kutch, Bihar.

Weather Outlook from 0830 hrs IST of 16th November to 0530 hrs IST of 18th November, 2009

- Scattered to fairly widespread rainfall is likely to continue over south peninsular India.
- Isolated to scattered rainfall is also likely to continue over northeastern states.

Salient advisories

- Farmers in South Interior Karnataka, Coastal Karnataka, Rayalaseema, Konkan & Goa, Madhya Maharashtra and Marathwada are advised not to apply irrigation as there was sufficient rainfall during last week in these regions.
- Farmers in West Madhya Pradesh, Tamil Nadu, Coastal Karnataka, and Kerala are advised to postpone irrigation as there are chances of rainfall at most/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.

Sowing in Southern Peninsula Advisories for *rabi* sowing

- In Tamil Nadu farmers are advised to undertake field preparation and sowing of crops like pearl millet and sunflower using the monsoon rainfall. Undertake sowing of cotton in Kovilpatty region. Sowing of paddy may be undertaken using SRI method.
- Farmers in Kerala are advised to continue transplanting of *mundakan* rice
- Undertake sowing of *rabi* groundnut, black gram and green gram in Andhra Pradesh.

Advisories for pest and disease

- Due to favourable weather condition, there are chances of pest and disease incidences in the following regions:
 - Canker in citrus, fruit borer in tomato, gundhi bug in rice and malformation in mango in Uttar Pradesh.
 - Flea beetle in toria, anthracnose and die back in citrus and mango and leaf curl in plum and peach in Jammu and Kashmir.
 - Yellow vein mosaic in green gram, moth bean and cowpea, mealy bug in okhra, blight in tomato, sucking pests and boll worm in cotton, saw fly and painted bug in mustard and bacterial leaf blight in rice in Rajasthan
 - 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

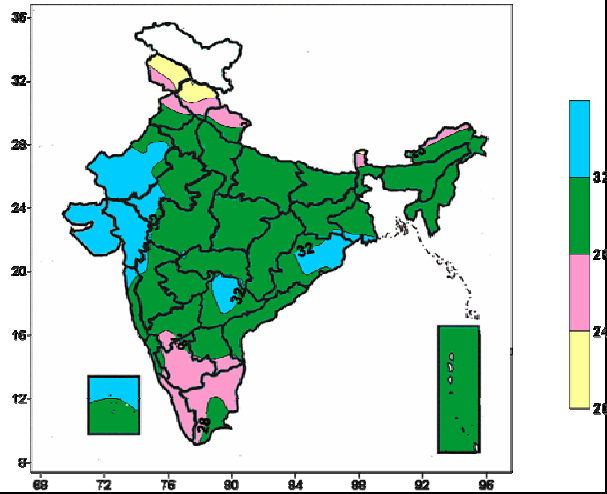
National Agrometeorological Advisory Service Centre,

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

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

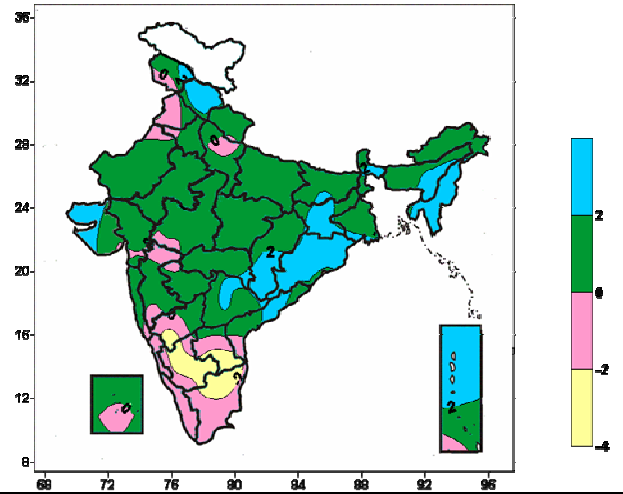
Contour maps for the week ending 11.11.09

Actual Mean Maximum Temperature (°C) in India for the week ending 11.11.09



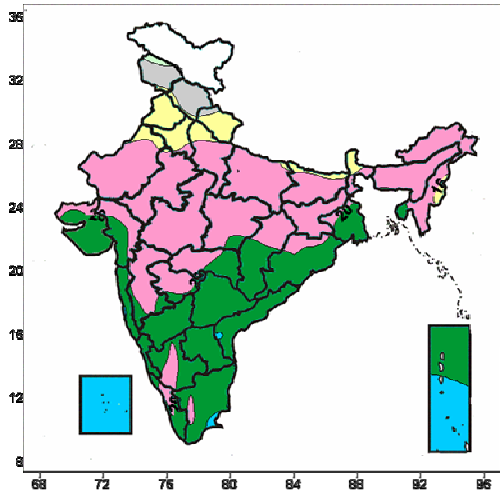
Actual Mean Maximum temperature ranged between 32°C and above over most parts of West Rajasthan, Gujarat, Saurashtra & Kutch, some parts of East Rajasthan, West Madhya Pradesh, Konkan, Madhya Maharashtra, Orissa, Tamil Nadu, Kerala, South Interior Karnataka, some parts of Jammu & Kashmir, Punjab, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Coastal & North Interior Karnataka, 20 to 24°C over some parts of Jammu & Kashmir, Uttarakhand, 28 to 32°C over remaining parts of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 11.11.09



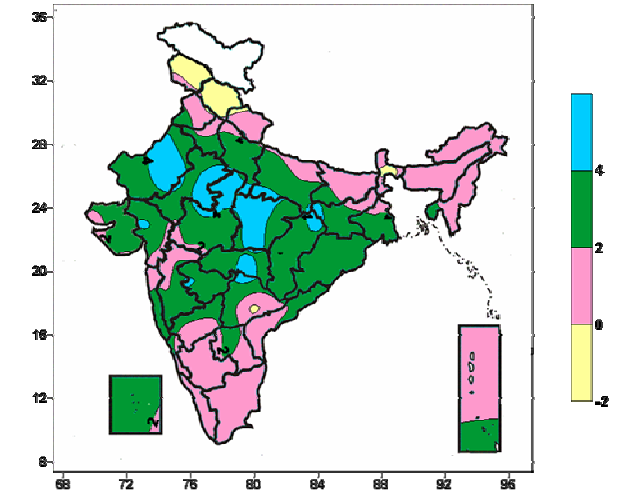
Actual Mean Maximum temperature anomaly ranged between 2°C and above over most parts Himachal Pradesh, Orissa, Nagaland, Manipur, Mizoram, Tripura, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Saurashtra & Kutch, West Bengal, Assam & Meghalaya West Bengal, East Madhya Pradesh, Chattisgarh, Vidarbha, Coastal Andhra Pradesh, Telangana, -2 to 0°C over most parts of Kerala, Tamil Nadu, Coastal Karnataka, over some parts of Jammu & Kashmir, Punjab, West Rajasthan, Uttarakhand, West Uttar Pradesh, Coastal Andhra Pradesh, Rayalaseema, South & North Interior Karnataka, Goa, Madhya Maharashtra, Marathwada, Gujarat, Lakshadweep, Andaman & Nicobar Islands, -4 to -2°C over some parts of Rayalaseema, Tamil Nadu, North & South Interior Karnataka, 0 to 2°C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 11.11.09



Actual Mean Minimum Temperature ranged between 24°C and above over most parts of Lakshadweep, Andaman & Nicobar Islands, some parts of Coastal Andhra Pradesh, coastal Tamil Nadu, 20 to 24°C over most parts of Saurashtra & Kutch, Konkan & Goa, Karnataka, Andhra Pradesh, Chattisgarh, Orissa, Tamil Nadu, Kerala, some parts of Gangetic West Bengal, Tripura, East Madhya Pradesh, Vidarbha, Madhya Maharashtra, Marathwada, Gujarat, Andaman & Nicobar Islands, 12 to 16°C over most parts of Punjab,

Minimum Temperature (°C) Anomaly in India for the week ending 11.11.09

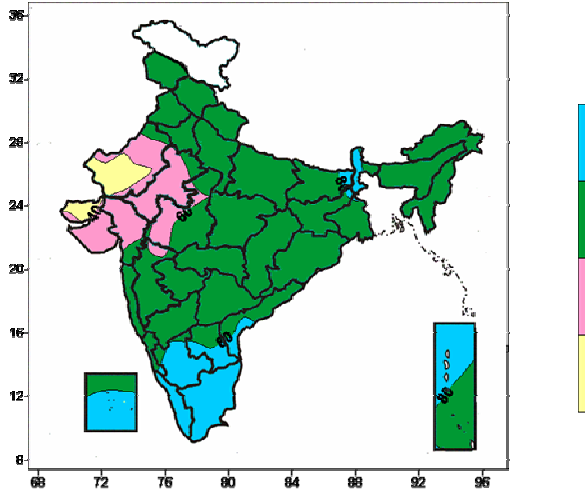


Minimum Temperature anomaly ranged between 4°C and above over some parts of Rajasthan, Uttar Pradesh, Jharkhand, Chattisgarh, Madhya Pradesh, Vidarbha, Telangana, Marathwada, Gujarat, 0 to 2°C over most parts of Punjab, Uttarakhand, Bihar, Sub-Himalayan West Bengal, Sikkim, North East India, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Haryana, New Delhi, Uttar Pradesh, Jharkhand, Gangetic West Bengal, Konkan & Goa, Madhya Maharashtra, West Madhya Pradesh, Gujarat, Saurashtra &

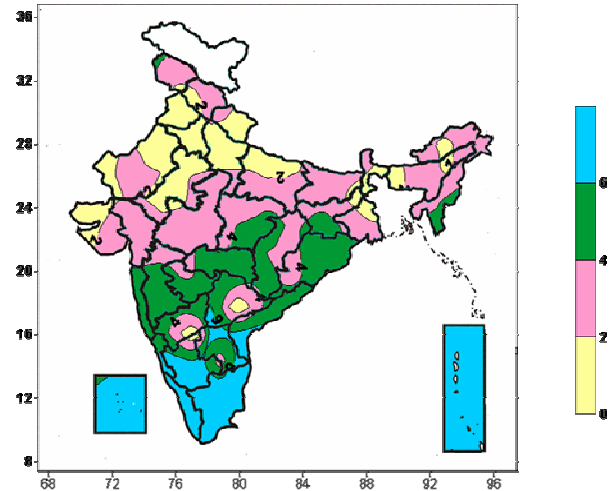
Haryana, Delhi, Uttarakhand, some parts of Jammu & Kashmir, Himachal Pradesh, Uttar Pradesh, Rajasthan, Bihar, Sikkim, Manipur, 8 to 12°C over most parts of Jammu & Kashmir, Himachal Pradesh, some parts of Uttarakhand, 4°C to 8°C over some parts of Jammu & Kashmir, 16°C to 20°C over remaining parts of the country.

Kutch, -2 to 0 °C over most parts of Jammu & Kashmir, Himachal Pradesh, some parts of Sub-Himalyan West Bengal, Telengana, 0 to 2°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 11.11.09



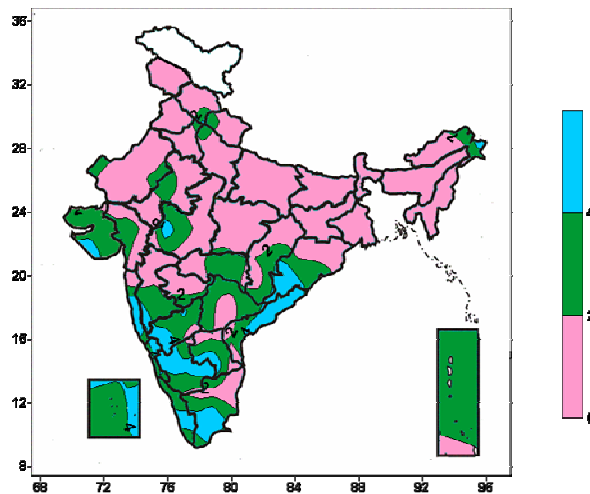
Cloud amount (okta) over India for the week ending 11.11.09



Relative humidity more than 80% over most parts of Sub-Himalayan West Bengal & Sikkim, Tamil Nadu, Kerala, South Interior Karnataka, Lakshadweep Island, some parts of Bihar, Jharkhand, Coastal Andhra Pradesh, Raylaseema, Andaman & Nicobar Island, 40 to 60% over most parts of East Rajasthan, Gujarat, Saurashtra & Kutch, some parts of West Rajasthan, West Madhya Pradesh, Madhya Maharashtra, 20 to 40% some parts of West Rajasthan, Saurashtra & Kutch, 60 to 80 % over remaining parts of the country.

Cloud amount 6 okta and above over most parts of Tamil Nadu, Kerala, South Interior Karnataka, Andaman & Nicobar and Lakshadweep Islands, some parts of Andhra Pradesh, Coastal Karnataka, 4 to 6 okta over most parts of Mizoram, Orissa, Andhra Pradesh, North Interior Karnataka, Maharashtra, some parts of Manipur, Mizoram, Chattisgarh, East Madhya Pradesh, Coastal Karnataka, 0 to 2 okta over most parts of Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Rajasthan, some parts of Jammu & Kashmir, Himachal Pradesh, Bihar, Jharkhand, West Bengal, Arunachal Pradesh, Assam & Meghalaya, Telengana, North & South Interior Karnataka, West Madhya Pradesh, 2 to 4 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 11.11.09






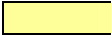


Wind speed ranged between 4 knots and above over some parts of Orissa, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Kerala, South Interior Karnataka, Konkan, Madhya Maharashtra, Saurashtra & Kutch, West Madhya Pradesh, Lakshadweep Island, 2 to 4 knots over most parts of Coastal Karnataka, Vidarbha, Saurashtra & Kutch, Lakshadweep, Andaman & Nicobar islands, some parts of Himachal Pradesh, Uttarakhand, Haryana, West Uttar Pradesh, Arunachal Pradesh, Kutch, Madhya Pradesh, Chhattisgarh, Orissa, Konkan & Goa, Madhya Maharashtra, Marathwada, Gujarat, Rajasthan, Andhra Pradesh, North & South Interior Karnataka, Tamil Nadu, Kerala, 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									
	14 th October		21 st October		28 th October		4 th November		11 th November	
	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.	Normal (mm)	Dep.
A & N Islands	67.0	-27	54.0	-79	55.6	-21	60.8	-92%	64.3	-64%
Arunachal Pradesh	3808	98	32.1	-80	21.2	-96%	7.5	-100%	14.0	-94%
Assam and Meghalaya	44.6	103	23.2	-49	20.9	-99%	9.3	-100%	9.2	-97%
NMMT	41.8	58	17.3	61	23.6	-100%	17.7	-100%	16.6	-100%
SH West Bengal & Sikkim	44.8	276	24.9	-98	13.1	-100%	9.0	-100%	4.1	-100%
Gangetic West Bengal	32.1	-68	24.0	-98	17.7	-100%	12.2	-95%	7.1	-96%
Orissa	28.5	-81	28.0	-99	17.8	-100%	15.4	-100%	8.2	-52%
Jharkhand	22.8	-11	15.4	-100	8.0	-100%	4.8	-100%	3.3	-94%
Bihar	13.7	293	13.3	-99	4.8	-100%	4.4	-100%	1.2	-100%
East Uttar Pradesh	16.8	-51	6.5	-100	1.1	-100%	3.5	-100%	1.0	-100%
West Uttar Pradesh	14.3	-100	3.1	-97	0.9	-100%	1.8	-100%	1.3	-97%
Uttarakhand	21.3	-92	5.9	-99	3.2	-100%	4.2	-100%	1.8	-22%
Haryana, Chandigarh & Delhi	5.5	-100	0.9	-100	1.0	-100%	1.5	-100%	0.5	-62%
Punjab	6.8	-100	1.3	-100	0.8	-100%	1.8	-100%	0.8	91%
Himachal Pradesh	14.9	-93	6.2	-61	5.0	-100%	4.4	-100%	2.8	380%
J & K	9.9	-84	8.0	-99	6.6	-99%	7.0	-100%	5.5	274%
West Rajasthan	0.8	-98	0.5	-89	0.8	-100%	0.8	-100%	0.3	-100%
East Rajasthan	5.9	-99	1.4	-85	0.9	-100%	1.1	-100%	1.6	-100%
West M. P.	12.0	-100	4.3	-99	1.1	-100%	2.2	-100%	4.4	-33%
East M. P.	11.6	-99	5.8	-87	2.6	-100%	3.0	-100%	3.5	-39%
Gujarat region	8.9	-92	2.0	-100	1.3	-100%	1.8	-100%	2.9	-51%
Saurashtra & Kutch	3.9	-100	2.0	-100	1.7	-100%	3.2	-100%	3.0	-100%
Konkan and Goa	30.6	-52	16.5	-91	11.9	-99%	7.3	-100%	7.3	355%
Madhya Maharashtra	19.9	-79	13.1	-92	9.3	-100%	6.5	-100%	7.8	508%
Marathwada	19.7	-93	10.1	-100	10.4	-100%	6.5	-100%	6.5	229%
Vidarbha	14.4	-99	7.7	-100	6.9	-100%	4.2	-100%	3.4	192%
Chhattisgarh	17.0	-93	12.1	-100	9.3	-100%	4.6	-100%	2.1	-100%
Coastal A. P.	34.2	-61	56.3	-100	46.1	-96%	36.1	-71%	30.3	170%
Telangana	17.3	-83	15.7	-99	16.4	-100%	9.7	-99%	6.4	25%
Rayalseema	27.1	-54	24.5	-99	27.2	-97%	20.5	-45%	17.8	257%
TamilNadu & Pondicherry	37.4	-45	49.8	-88	46.3	-92%	44.1	8%	44.8	325%
Coastal Karnataka	41.9	-58	33.0	-81	35.3	-100%	22.6	-84%	22.5	169%
N. I. Karnataka	23.2	-59	16.4	-99	22.0	-100%	11.6	-94%	9.4	95%
S. I. Karnataka	36.2	-25	27.9	-89	27.3	-99%	17.7	-58%	15.6	123%
Kerala	69.1	-79	70.0	-76	68.7	-85%	62.6	-88%	48.2	244%
Lakshadweep	34.1	-99	34.9	-93	33.2	-65%	35.2	-3%	35.6	278%

The subdivision like Andaman & Nicobar Islands, Gangetic West Bengal, Orissa, Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, Rajasthan, Madhya Pradesh, Gujarat, Saurashtra & Kutch, Chhattisgarh, received scanty / deficient rainfall in last 5 weeks; Arunachal Pradesh, Assam & Meghalaya, Sub Himalayan West Bengal, Jharkhand, Bihar, Himachal Pradesh, Jammu & Kashmir, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Andhra Pradesh, Karnataka and Kerala Islands received scanty / deficient / no rainfall in 4 out of last 5 weeks; Nagaland, Manipur, Mizoram, Tripura, Tamil Nadu & Pondicherry and Lakshdweep 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:** There was excess rainfall over the state during last week.
- **Rainfall Forecast:** Rainfall is likely at a few places 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.
- **Major rabi Crops: Wheat**
- **Advisory:**
 - 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.
 - It is optimum time for nursery sowing of onion. For taking seed crop of onion plant bulbs at 45*45 cm apart directly in filed. It is also time for sowing of peas (var. agad, Lincoln and priya)
 - 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, after current spell of rain.
 - 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:** Mainly dry weather was prevailed over the State except few districts like Rudraprayag, Uttar kashi, where rainfall was excess.
- **Rainfall Forecast:** Rainfall is likely at a few places 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:** Mainly dry weather was prevailed over the State except few districts, where rainfall was excess during last week.
- **Rainfall Forecast:** Rainfall is likely at a few places 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 rainfall during last week and likely at a few places in the State during next five days, postpone irrigation to the standing crops.

- As weather is expected to be dry in coming days, farmers can complete harvesting of the paddy 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.
- As weather is expected to be dry, farmers can go for picking of the cotton crop. The picking should be done only after the full sunshine and kept in moisture free room/space to retain quality.
- 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.
- Undertake weeding, intercultural operations and application of fertilizers.
 - **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - Powdery mildew in ber orchards, to control irrigate the ber orchard as they carry fruit load & 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 on a non rainy day.
- **Animal Husbandry:** The crossbred animals are more susceptible to various diseases associated with change in climatic conditions. These animals and their calves are likely to get diarrhoea may be due to internal parasites. Seek veterinary advice immediately and get the calves dewormed and diarrhoea treated. For appropriate milk yield, do the milking quickly, cleanly and correctly with full hand.

Haryana

- **Realised Rainfall:** Mainly dry weather was prevailed over the State except Chandigarh, Sirsa districts where rainfall was excess.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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 except Chandigarh, Sirsa districts and isolated rain 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.
 - 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.
 - Farmers are advised don't pickup cotton in the early morning hours so that quality may not decreased.
- **Major rabi Crops: Wheat**
 - **Advisory:**
 - 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 3rd week of November. On the previous evening of sowing. Spread the seed on the pucca floor, spray/sprinkle the spray liquid uniformly over the seed and go on mixing it thoroughly so that the insecticide is coated over the seed surface. To protect the wheat crop from termite attack 40 kg seed with 60 ml chlorpyriphos 20 EC or 100 ml formothion 25 EC or 140 ml endosulfan 35 EC making 2 litre emulsion in water. For prevention of seed-borne diseases treat the wheat seed with vitavax or Bavistin or Benlate @ 2 g/kg seed.

- 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.
 - The weather conditions are ideal for sowing early varieties. Start sowing “desi” varieties of radish (Punjab Pasand & Punjab Safed), turnip (L-1 & 4-white) and carrot (No. 29 PC-34 and Sel. 21), pea, potato and palak (Punjab Green). Transplant fully developed seedlings (4-6 week old) of main season varieties of cauliflower. Sowing of late season varieties of cauliflower i.e. Snow-Ball-16, Pusa Snow ball 1 & Pusa Snow ball K-1 can be started.
 - This is suitable time for planting of evergreen fruit plants like sweet orange, mandarin, lime, lemon, guava & ber. For checking pre-harvest fruit drop, spray the trees with 10 ppm of 2,4-D and 0.3% of Zinc sulphate. In citrus leaf miner can be checked by spraying 500 ml of Sumicidin 20 EC or 1000 ml Ripcord 10 EC or 1250 ml Hostaphion 40 EC in 500 litres of water. In grapes, spray the vines with Bavistin @ 400g/400 litres of water to control anthracnose.
 - 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.
 - 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places over the State.
- **Major Kharif Crops:** vegetables and rice
- **Crop Stage:** vegetative/grain formation; tillering/panicle initiation (late paddy)
- **Crop Condition: Satisfactory**
 - **Advisory:** Harvested paddy crop should be dried in the shade and thereafter threshing should be done as earliest. Before storing, grains should be dried to bring down moisture level below 12 %.
 - Godowns should be thoroughly cleaned to destroy any insect pests hiding in the crevices and dried before storing grains.
- **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.
- **Major rabi Crops: Wheat**
- **Advisory:**

- To prepare the field for sowing of un-irrigated wheat varieties like; C306, K8027 and RW3016 seed rate @ 125 kg/ha and fertilizer dose should be given @ of 40:30:20 N:P:K kg/ha respectively at the time of last ploughing of the field. Seed should be treated with Bavistine or Vitavax @ 1gm/kg of seeds. Spacing should be given at a distance of 20cm. row to row. If soil moisture is excess in the field then zero till machine can be applied for sowing of wheat.
- Un-irrigated Oat varieties like: Ratna, Azad and K 125 and seed rate should be applied @ 100 kg/ha and nutrient doses approx 60:30:20 N: P: K kg/ha respectively should be given at the last ploughing of the field.
- 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 varieties like; Saktiman, 1,2,3,4; Laxmi, Rajendra Shankar Makka 1 and 2 may be taken up in this weather conditions at a distance of 75 x 20 cm and applied 20 kg seeds /ha for getting maximum yield.
- 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, Jwahar Masoor- 3, H.U.L-57. Seed treatment with Rhizobium and Phosphorus solublising bacteria is advised.
- Prepare the field for sowing of *rabi* crops like Sarson (Var-Rajendra Sarson-1, Swarna etc.) Rai like (Baruna, Pusa bold and Kranti) seed rate @ 5kg /ha. Sunflower like (Morden, Surya, Paradovic, KBSH 1,44) seed rate 5kg/ha for hybrid and 8 kg/ha for composite variety.
- 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 Dhania 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.
- **Plant Protection:**
- For control the Gandhi bug insects of late sowing rice crop, Folidol or Malathion 5% dust @ 20-25kg/ha or spraying of endosulfan-35EC @1.5 ml per liter of water.
- For control of the insects-pest in vegetables, spraying of malathion or endosulfan-35 EC @1.5-2ml per liter of water is advised.

- **Realised Rainfall:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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 rabi crops:** Wheat
 - Sowing of late sown varieties of wheat as Malviya – 234, Narendra - 236, T.W.T – 373 etc. may be taken up, seeds @125 Kg/ha and purification of seeds may be done by carbondazim or Theerum. For sowing varieties of wheat KRL – 203, Raj -3077, Lokvan etc in barren land, take seeds 25% more than normal and use of fertilizers may be done as per soil testing.
 - **Major Seasonal Crop with stage:** Sugarcane (grand growth) and vegetables (vegetative/fruited), 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.
 - Complete the Sowing of advance and recommended varieties of Gram, pea & lentil and other pulses crops in sufficient moisture at earliest.
 - Complete sowing of early varieties of potatoes like Kufri Chandramukhi, Kufri Bahar, Kufri Sadabahar, Kufri Ashok.
 - Weeding, hoeing, thinning and top dressing of recommended amount of Nitrogen may be done in Toria.
 - **Plant Protection:** Weather conditions are favourable for mild incidences of
 - To control Mull formation disease in mango, spray the solution of Naphthalene Acetic acid 200 PPM or 4ml. Plano fix and 9 litre in water.
 - To control cankers diseases in lemon, spray the solution of Blytox 3-4 gram/litre in water.
 - 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

- **Realised Rainfall:** Rainfall was excess over the State.
- **Rainfall Forecast:** Rainfall is likely at a few places 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.
- Undertake harvesting of apple.
- **Major Seasonal Crop with stage:** Vegetables (vegetative/flowering/fruited). 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.
- Sowing of barley (cv: Ratna, Jyoti & Sonu) with seed rate 100 kg/ha in rainfed areas. Before sowing 2-3 ploughing with disc harrow in order to get good tilth and each ploughing followed planking in order to conserve moisture in situ condition.
- 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/lt 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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 dimethoate 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 + streptomycin@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:** Mainly dry weather was prevailed over the State.
- **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**
 - 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.
- Farmers are advised to start the field preparation and sowing of normal sown wheat crop as temperature conditions are becoming favourable. HD 2824, HD 2733, PBW 343, HP 1731, K 9107, HP 1761, PBW 434, UP 262, RW 346, RW 3413 are recommended varieties for sowing across the districts of north Bihar. Apply 60 kg nitrogen, 60 kg phosphorus and 40 kg potassium per hectare at the time of field preparation. Use seedrate@125 kg per hectare. Farmers are advised to continue the sowing of un irrigated wheat varieties. Continue the sowing of late varieties of rapeseed and mustard.
- Weather is staying favourable for planting of potato tubers. Farmers are advised to plant Kufri chandramukhi, kufri Ahoka, kufri Badsha, Kufri Lalima, Kufri Jyoti, Rajendra Alu 2 and TPS varieties are recommended for sowing across 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** at few places 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at an isolated places 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at isolated places 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 kharif 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:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at at isolated places over the State.
- **Major Kharif 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:** Most of the districts received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at an isolated places over Telangana; at few places over Coastal Andhra Pradesh and 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/harvesting (groundnut), vegetative/boll formation (cotton).
- **Crop Condition:** Good.
- **Advisory:**

- The fields which are completely inundated due to the floods to Krishna river and cotton crop completely damaged, farmers are advised to undertake sowing of alternate crops like greengram, blackgram, rabi redgram, maize, chickpea, sorghum.
- Spraying 2% urea or 2% KNO₃ should be taken up two times at weekly intervals.
- Rabi groundnut sowings can be taken up from November 15th to December 15th. Groundnut seeds should be treated with Imidachloprid @ 2 ml and Dithane M-45 @ 3 g per kg of seed to avoid pests and diseases and to ensure better germination. Farmers are advised to remove the weeds on the bunds and also from the fields especially parthenium, which acts as host for peanut stem necrosis disease (PSND) and 3-4 rows of Sorghum can be raised as a border crop to avoid the incidence of PSND.
- 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,LBG 752. Greengram/ blackgram seed to be treated with carbosulphan @ 30g or imidacloprid @ 5ml and mancozeb @ 3g or carbendazim @ 2.0 per kg of seed.
- Chickpea can be sown from October-November.
- **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.
 - Raise the nurseries of rabi vegetable crops like brinjal, cabbage, cauliflower, capsicum and tomato.
 - In view of prevailing low minimum temperatures, apply Dormix @ 30 ml per litre of water on pruned branches for obtaining better bud break on grapes.
- **Plant protection:**
 - Present weather conditions were congenial for the incidence of wilt in redgram. To control, spray Bavistin @1.0 gm/litre of water.
 - 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.
 - 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.
 - Incidence of Jassids and mealy bugs is noticed in Cotton. Spray Dimethoate @ 2 ml or Imidacloprid @ 0.25 ml per litre of water. Collect and destroy the affected leaves by Mealy Bug. Keep the fields free from weeds. Spray Profenophos @ 3 ml per litre of water. Incidence of Alternaria leaf spot is also noticed. To control, spray Mancozeb @ 2.5 g or Copper-Oxy-Chloride @ 3 g or Cuman L @ 4 ml 4-5 times at 15 days interval.

Karnataka

- **Realised Rainfall:** Most of the districts received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at few places over the State.
- **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 Brahmavar.
- Before planting the sugarcane the farmers are advised to treat the seed sets with Carbendazime 40 g + Chlorpyrifos 40 ml + urea 40 g in 40 litres of water for about 10 minutes. Use 10,000 – 14,000 three budded sets for one acre. Apply 10 tons of FYM along with 100: 30: 76 kg NPK per acre. Apply 50% N and full dose of P & K as basal dose. Go for recommended varieties such as CoC-671, Co-740.
- **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.
 - In Sunflower to control leaf caterpillar, Remove and burnt the leaves on which the leaf eating caterpillar has laid the eggs and if the infestation is 30 % then go for dusting of Malathion @ of 8 kg/acre or spraying of 2 ml Quinolphos per liter of water.
 - Brown plant hoppers in rice, apply the phorate (10 % G) @ 5 Kg / Ac.

Kerala

- **Realised Rainfall:** Most of the districts received excess rainfall during last week.
- **Rainfall Forecast:** Rain / thundershowers is likely at a many 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.
- 2nd doze of lime @ 250kg/ha may be applied for direct sown/and transplanted crop one month after planting. One week after lime application top dressing of fertilizers may be done. Drain water from the field before fertilizer application. After 12 hours, water may be let in.
- **Major Seasonal Crop:** Vegetables and plantation crops (coconut, arecanut, pepper and cashew). Time for planting of coffee and arecanut
- Farmers are advised to postpone irrigation as there is chance of rainfall during next five days
- Intercultural operations, application of fertilizers and pesticides may be continued after current spells of rain.
- Planting of arecanut seedling can be continued. Srimangla, sumangla and Mohitnagar are best suited and high yielding varieties.
- **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.
- Pests like leaf folder, brown plant hopper, jasids, stem borer etc. in rice, spray fenthion @ 1000ml of 50 EC/ha may be done on a non-rainy day. 2.5Kg pseudomonas culture may be mixed with 50 kg of cow dung powder and apply where there is a chance of blast and bacterial blight diseases. Application may not be done with chemical fertilizers and plant protection chemicals.
- During this season the attack of coried bug may be seen in Coconut. If the attack is severe, spray carbaryl 4 gm / litre of water using roker sprayer. Spray crowns and leaves with 1% Bordeaux mixture / 0.5 % copper oxychloride formulation / 0.4% mancozeb as a prophylactic measure against leaf rot disease. In the leaf rot affected plants, remove the rotten parts from the spear and two adjacent leaves and pour 300ml of fungicide solution at the base of the spear which can be prepared by mixing Hexaconazol 5EC 2 ml or mancozeb 3 gm in 300 ml of water. If stem bleeding is seen, chisel out the affected tissues and paint the wound with tridemorph 5%. Apply coal tar after 1-2 days. Root feed with tridemorph 5% to prevent further spread of lesions. Leaf axil filling with 25 gm Sevidol 8G and 200gm fine may be done to control rhinoceros beetle.

Tamil Nadu

- **Realised Rainfall:** Most of the districts received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at a few places over the state.
- **Major Kharif Crops:** Groundnut, pulses and rice
- **Crop Stage:** pod development (pulses), picking (cotton)
- **Crop Condition:** Good
- **Advisory:**
- North east monsoon has been vigorous over the State. Farmers are advised to drain out excess water in the fields of standing crops.
- 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.
- Farmers are advised to undertake sowing of *rabi* crops utilizing the current rainfall.
- **Major Seasonal Crop:** *thaladi* rice (tillering), sugarcane, banana and vegetables.
 - As there was sufficient rainfall during last week and there is possibility of rainfall during next 3 days, postpone intercultural operations like weeding and fertilizer application in *thaladi* rice.
 - Postpone intercultural operations and application of fertilizers in vegetables and sugarcane as there is chance of rain for next 3 days.
 - 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.
 - Sowing of pulses like redgram, greengram and blackgram may be taken up by utilizing current rain.
 - As rainfall is expected in next five days, undertake transplanting of chilli seedlings.
- **Plant Protection:**
 - Low temperature and high relative humidity are favourable for the incidence of leaf folder, stem borer and earhead bug in rice. For controlling leaf folder spray monocrotophos at 500 ml / ha, for stemborer spray endosulfan 750 ml / ha and for earhead bug apply carbaryl at 25 kg / ha.
 - High cloud cover and humidity forecasted for the coming days are conducive for the multiplication of leaf miner in groundnut and multiplication of internode borer in sugarcane. To control leaf minor,

spray endosulfan 750 ml / ha or monocrotophos 750 ml / ha in groundnut and for internode borer release *Trichogramma chilonis* at 1 cc / release for 6 times at an interval of 15 days in sugarcane.

- Turmeric plants are infested with fungus which causes spoiling of its rhizomes. To control this menace, use a fungicide like zeb @ 3 grams per litre of water with sticking solution of 1 ml per litre of water for the spray twice in a day (morning and evening) to be repeated for two more times at a gap of 15 days.
- In Rubber, incidence of Powdery mildew may occur. To control, farmers are advised to 0.2% sulphur dust can be used.
- Prevailing weather condition is favourable for incidence of wilt in banana crop. To prevent the incidence stem injection of 2% carbendazim @ 3ml/tree can be given.
- Undertake plant protection measures after spells of rain.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Maharashtra

- **Realised Rainfall:** Most of the districts received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at isolated places over Vidarbha and at a few places over remaining parts of the state.
- **Major Kharif Crops:** Rice, ragi, cotton, Vegetables, Pulses, bajra, groundnut, tur, horse gram, soybean, jowar
- **Crop Stage:** *Kharif* paddy (early & mid late variety at grain maturity / harvesting, late variety at grain maturity), jowar (grain maturity / harvesting), *Kharif* cotton(boll maturity / picking), groundnut (harvesting), irrigated cotton(boll maturity / picking) and rabi jowar, safflower, sunflower, gram, linseed (sowing/ germination and early sown jowar, safflower at early vegetative growth stage), wheat(sowing)
- **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. Start sowing of wheat.
 - Thinning & weeding may be done early sown crop.
 - Postpone irrigation to standing crops.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables
 - Undertake spraying, fertilizer application in the standing crops on a non rainy day in Vidarbha.
 - Continue harvesting of already matured groundnut, jowar, sunflower & early, mid late 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 Fenthoate 50% WS @ 14 ml in 10 liters of water.
- Blast and powdery mildew disease on grapes, for control spray Copper Oxy chloride, Mancozeb or Capton. For control of downy mildew, deep the grape bunch in a solution of Zebralic acid, Phenamedon plus Mancozeb 250gm per 100 liter of water.
- Blight & late leaf blight on potato , for control spray Mancozeb @ 30gm or Chlorothalonil@ 25gm or Copper oxy chloride @ 30gm or Melaxyl + Cacozeb @ 30gm in 10 liters of water by interval of 10-15 days .

Gujarat

- **Realised Rainfall:** Mainly dry weather was prevailed over the State except few districts, which received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at isolated places over Gujarat region and mainly dry weather is likely to prevail over Saurashtra and Kutch.
- **Major Kharif Crops:** Rice, castor, pigeon pea, cotton, groundnut, bajra, sesamum, cluster bean, pulses
- **Crop Stage:** Rice (grain development/maturity), groundnut (pod development/maturity), maize (siliking/ cob formation), cotton (square formation), bajra (grain formation).

- **Crop Condition:** Crop condition is satisfactory
- **Advisory:**
 - Apply irrigation to the crops as there was no significant rainfall during last week and rainfall is likely at isolated places for the next five days.
 - Farmers are advised to stop the irrigation in cumin crop. Also advised to complete picking of cotton immediately.
 - 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 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.
 - Farmers are advised to apply irrigation to gram crop as it is in flowering stage.
 - Farmers are advised to undertake sowing of wheat and select among GW-496, 366, 322, Lok-1 certified seed @ 100 kg /ha keeping 30 x 10 cm distance. Apply irrigation immediately after sowing.
- **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 looper in castor, spray chlorpyripos 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 pharomone trap /ha. And spray endosalphan @ 21 ml or DDVP @ 5 ml/10 lit of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Realised Rainfall:** Mainly dry weather was prevailed over the State except few districts, which received excess rainfall during last week.

- **Rainfall Forecast:** Rainfall is likely at many places over West Madhya Pradesh and at few places over East Madhya Pradesh.
- **Major Kharif Crops:** Rice, jowar, sunflower, jowar and soybean
- **Crop Stage:** grain formation/ development (rice), pod development/maturity (soybean and other pulse crops).
- **Crop Condition:** Satisfactory.
- **Advisory:** Start harvesting the matured crops of soybean 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 soybean, spray Quinolphos 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 Galgotu, 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

- **Realised Rainfall:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at a few places 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.
- Rice crop should be 12% dried after harvesting before storage.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), vegetables (flowering / fruiting / harvesting),
- **Crop Condition:** Good
- **Advisory:** Prepare the land for sowing Wheat, 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.
- Completer sowing of wheat upto end of 30th November by using long duration varieties.
- Farmers are advised to undertake intercultural operations, application of fertilizers and pesticides in early sown crops.