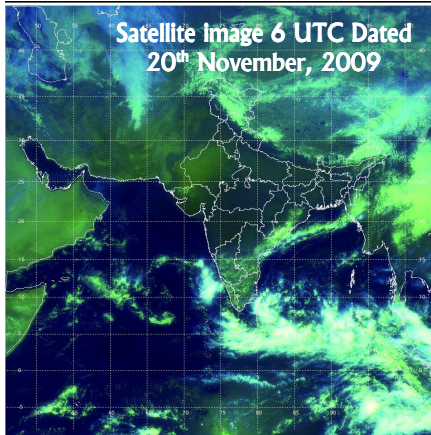




National Agromet Advisory Bulletin

Thursday, 19th November, 2009 (For the period 19th to 23rd November, 2009)



Rainfall Forecast valid upto 1430 hours IST of 22nd November, 2009

- **Many Places:** Tamil Nadu & Pondicherry, Kerala and Lakshdweep Islands
- **Few Places:** Coastal Andhra Pradesh, Rayalaseema, South Interior Karnataka and Andaman & Nicobar Islands.
- **Isolated Places:** North East India, Orissa, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka,
- **Dry:** West Bengal & Sikkim, Bihar, North West India, Central India, Gujarat, Saurashtra & Kutch, Telangana, North Interior Karnataka
- **Mainly dry Weather:** Jharkhand, Marathwada

Weather Outlook from 1430 hrs IST of 22nd November to 1430 hrs IST of 24th November, 2009

- Scattered to fairly widespread rainfall activity is likely to continue over extreme south peninsular India.
- A fresh western disturbance is likely to affect western Himalayan region.

Salient advisories

- Farmers in Karnataka, Andhra Pradesh, Maharashtra, Himachal Pradesh, Madhya Pradesh and West Uttar Pradesh are advised not to apply irrigation as there was sufficient rainfall during last week in these regions.
- Farmers in Tamil Nadu and Kerala are advised to postpone irrigation as there are chances of rainfall at many places during next five days in these states.
- 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

- 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. Transplanting of paddy may be undertaken using SRI method.
- Farmers in Punjab and Haryana are advised to undertake field preparation and sowing of long duration wheat varieties.
- Farmers in Rajasthan are advised to undertake sowing of rapeseed, mustard, barley, gram, lentil, pea, lucerne and cumin.
- Farmers in Orissa are advised to undertake sowing of wheat, mustard, sunflower and sowing of pulse crops like lentil, gram and pea up to the end of November.

Advisories for pest and disease

- Due to favourable weather condition, there are chances of pest and disease incidences in the following regions:
 - Pod borer, leaf spot in pigeon pea, *Heliothis* in cotton in Karnataka.
 - Sheath blight, blast in rice, black arm and *Alternaria* leaf spot in cotton in Andhra Pradesh.
 - Saw fly in mustard, early blight in potato and late blight in tomato in Assam.
 - Pod borer in pigeon pea, leaf blight in Onion, powdery mildew in grapes in Maharashtra.
 - Mealy bug, *Alternaria* leaf spot in cotton, collar rot in groundnut, semilooper in castor in Gujarat
- Farmers are advised to undertake plant protection measures, if required.

Issued by

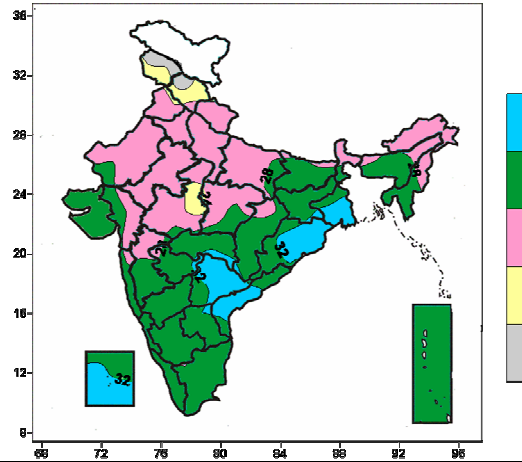
National Agrometeorological Advisory Service Centre,

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

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

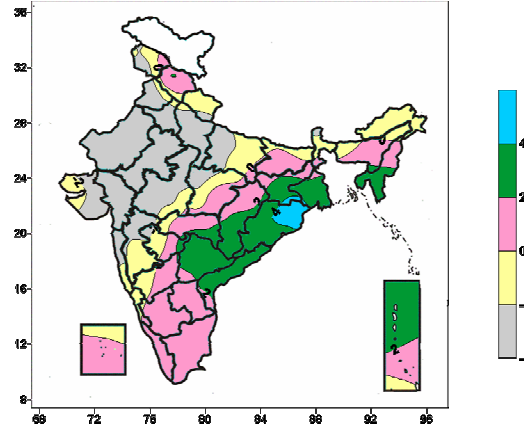
Contour maps for the week ending 18.11.09

Actual Mean Maximum Temperature (°C) in India for the week ending 18.11.09



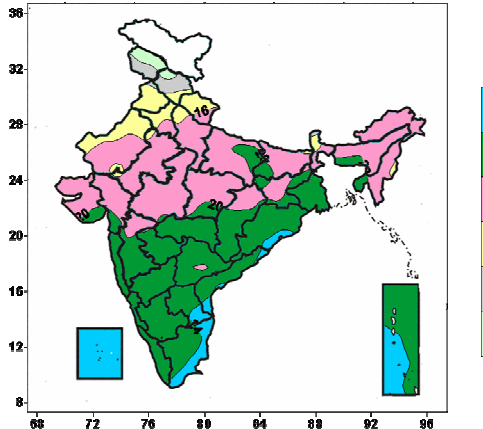
Actual Mean Maximum temperature ranged between 32⁰C and above over most parts of Gangetic West Bengal, Orissa, Telengana, Lakshdweep Islands, some parts of Jharkhand, Marathwada, Vidarbha, Rayalaseema, Coastal Andhra Pradesh, 24 to 28⁰C over most parts of Punjab, Haryana, Delhi, Utarakhand, Uttar Pradesh, Rajasthan, Sub-Himalayan West Bengal, Sikkim, Arunachal Pradesh, Nagaland, Madhya Pradesh, some parts of Himachal Pradesh, Bihar, Assam & Meghalaya, Manipur, Gujarat, Konkan, Madhya Maharashtra, Marathwada, Chhattisgarh, 20 to 24⁰C over some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, West Madhya Pradesh, 16 to 20⁰C over some parts of Jammu & Kashmir, Himachal Pradesh, 28 to 32⁰C over remaining parts of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 18.11.09



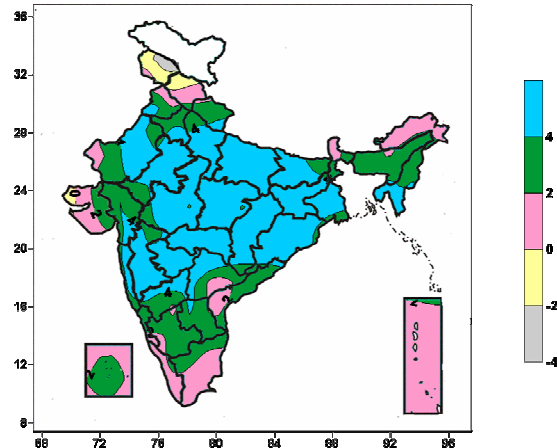
Actual Mean Maximum temperature anomaly ranged between 4⁰C and above over some parts of Jharkhand, Orissa, 2 to 4⁰C over most parts of Jharkhand, Gangetic West Bengal, Mizoram, Tripura, Orissa, Chhattisgarh, Coastal Andhra Pradesh, Telengana, Andaman & Nicobar Islands, some parts of Assam, Marathwada, Vidarbha, -2 to 0⁰C over most parts of Utarakhand, East Uttar Pradesh, Sub-Himalayan West Bengal, Arunachal Pradesh, Goa, South Madhya Maharashtra, Coastal Karnataka, over some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, West Uttar Pradesh, Bihar, Sikkim, Assam & Meghalaya, Saurashtra & Kutch, Madhya Pradesh, Konkan, Marathwada, Vidarbha, Interior Karnataka, Lakshdweep, Andaman & Nicobar Islands, -4 to -2⁰C over most parts of Punjab, Haryana, Delhi, West Uttar Pradesh, Rajasthan, West Madhya Pradesh, Gujarat, Saurashtra & Kutch, Konkan, North Madhya Maharashtra, some parts of Jammu & Kashmir, Utarakhand, East Uttar Pradesh, Sikkim, East Madhya Pradesh, Marathwada, 0 to 2⁰C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 18.11.09



Actual Mean Minimum Temperature ranged between 24⁰C and above over most parts of Lakshadweep Islands, some parts of Orissa, Rayalaseema, Coastal Andhra Pradesh, Tamil Nadu, Andaman & Nicobar Islands, 20 to 24⁰C over most parts of Gangetic West Bengal, Tripura, Orissa, Chhattisgarh, Maharashtra, Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Andaman & Nicobar Islands, some parts of East Uttar Pradesh, Bihar Jharkhand, Meghalaya, Madhya Pradesh,

Minimum Temperature (°C) Anomaly in India for the week ending 18.11.09

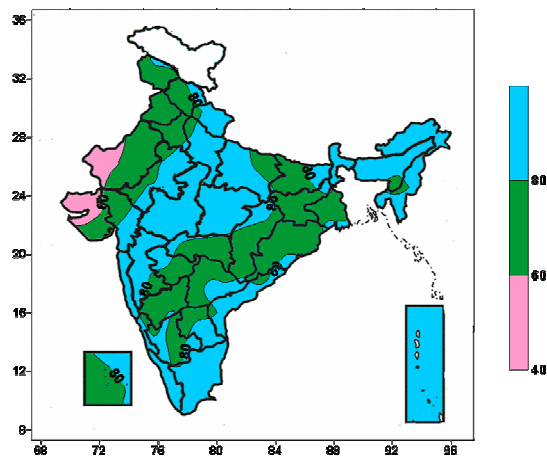


Minimum Temperature anomaly ranged between 2 to 4⁰C over most parts of Utarakhand, Assam & Meghalaya, Nagaland, Manipur, Gujarat, Karnataka, Andhra Pradesh, some parts of Punjab, Haryana, Delhi, Rajastha, West Uttar Pradesh, Bihar, West Bengal, Orissa, Chhattisgarh, Saurashtra & Kutch, West Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Kerala, Tamil Nadu, Lakshdweep, Andaman & Nicobar Islands, 0 to 2⁰C over most parts of Himachal Pradesh, Sikkim, Arunachal Pradesh, Saurashtra & Kutch,

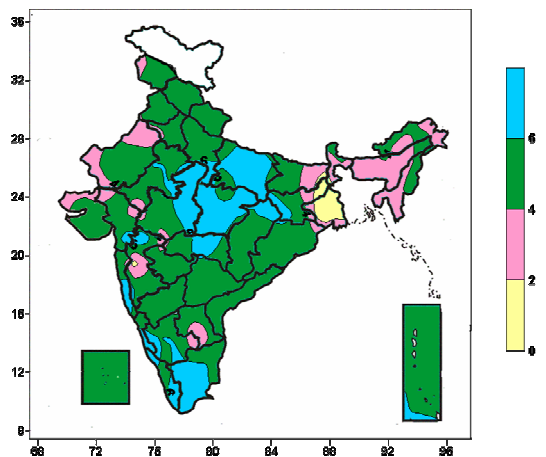
Gujarat, Kutchh, 12 to 16°C over most parts of Punjab, Haryana, Delhi, Uttarakhand, some parts of Himachal Pradesh, West Uttar Pradesh, Rajasthan, Sikkim, Manipur, 8 to 12°C over most parts of Himachal Pradesh, some parts of Jammu & Kashmir, 4°C to 8°C over some parts of Jammu & Kashmir, Himachal Pradesh,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

Kerala, Tamil Nadu, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Punjab, Uttarakhand, West Rajasthan, Sub-Himalayan West Bengal, Assam, Coastal Karnataka, Telengana, Coastal Karnataka, South Interior Karnataka, Lakshdweep Islands, -2 to 0°C over some parts of Jammu & Kashmir, Himachal Pradesh, Saurashtra, -4 to -2°C over some parts of Jammu & Kashmir, 4°C and above over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 18.11.09



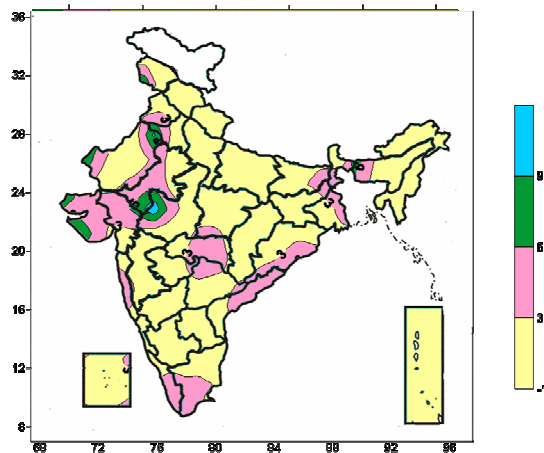
Cloud amount (okta) over India for the week ending 18.11.09



Relative humidity more than 80% over most parts of Uttarakhand, Uttar Pradesh, East Rajasthan, Sub-Himalayan West Bengal & Sikkim, Northeast India, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Coastal Karnataka, Coastal Andhra Pradesh, Kerala, Tamil Nadu, Andaman & Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Haryana, Bihar, Jharkhand, Gangetic West Bengal, Orissa, Chhattisgarh, Gujarat, Marathwada, Vidarbha, North & South Interior Karnataka, TElangana, Rayalaseema, Lakshdweep Islands, 40 to 60% over most parts of Saurashtra, some parts of West Rajasthan, Kutchh, 60 to 80 % over remaining parts of the country.

Cloud amount 6 okta and above over most parts of East Uttar Pradesh, East Madhya Pradesh, Tamil Nadu, some parts of West Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Chhattisgarh, Jharkhand, Gujarat, Konkan & Goa, Madhya Maharashtra, Vidarbha, Coastal Karnataka, South Interior Karnataka, Kerala, Andaman & Nicobar Islands, 2 to 4 okta over most parts of Assam & Meghalaya, Mizoram, Tripura, some parts of Jammu & Kashmir, Haryana, Rajasthan, Bihar, Jharkhand, West Bengal, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Orissa, Gujarat, Saurashtra, West Madhya Pradesh, Madhya Maharashtra, Marathwada, South Interior Karnataka, Rayalaseema, 0 to 2 okta over most parts of Gangetic West Bengal, some parts of Bihar, Jharkhand, 4 to 6 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 18.11.09






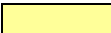


Wind speed ranged between 9 knots and above over some parts of West Madhya Pradesh, 6 to 9 knots over some parts of Rajasthan, Gujarat, Saurashtra & Kutch, West Madhya Pradesh, Assam & Meghalaya, 3 to 6 knots over most parts of Gujarat, Saurashtra & Kutchh, Vidarbha, Coastal Andhra Pradesh, some parts of Jammu & Kashmir, Punjab, Haryana, Rajasthan, Bihar, Jharkhand, West Bengal, Assam & Meghalaya, Orissa, Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Telengana, Kerala, Tamil Nadu, Laskhdweep Islands, 0 to 3 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									
	21 st October		28 th October		4 th November		11 th November		18 th November	
	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.
A & N Islands	54.0	-79	55.6	-21	60.8	-92	64.3	-64	61.0	-85
Arunachal Pradesh	32.1	-80	21.2	-96	7.5	-100	14.0	-94	5.6	433
Assam and Meghalaya	23.2	-49	20.9	-99	9.3	-100	9.2	-97	3.7	175
NMMT	17.3	61	23.6	-100	17.7	-100	16.6	-100	6.4	102
SH West Bengal & Sikkim	24.9	-98	13.1	-100	9.0	-100	4.1	-100	2.8	-29
Gangetic West Bengal	24.0	-98	17.7	-100	12.2	-95	7.1	-96	5.0	146
Orissa	28.0	-99	17.8	-100	15.4	-100	8.2	-52	5.9	230
Jharkhand	15.4	-100	8.0	-100	4.8	-100	3.3	-94	1.7	526
Bihar	13.3	-99	4.8	-100	4.4	-100	1.2	-100	0.6	538
East Uttar Pradesh	6.5	-100	1.1	-100	3.5	-100	1.0	-100	0.6	1141
West Uttar Pradesh	3.1	-97	0.9	-100	1.8	-100	1.3	-97	0.6	2273
Uttarakhand	5.9	-99	3.2	-100	4.2	-100	1.8	-22	1.1	525
Haryana, Chandigarh & Delhi	0.9	-100	1.0	-100	1.5	-100	0.5	-62	0.4	550
Punjab	1.3	-100	0.8	-100	1.8	-100	0.8	91	0.7	539
Himachal Pradesh	6.2	-61	5.0	-100	4.4	-100	2.8	380	2.7	1157
J & K	8.0	-99	6.6	-99	7.0	-100	5.5	274	6.7	262
West Rajasthan	0.5	-89	0.8	-100	0.8	-100	0.3	-100	0.5	-96
East Rajasthan	1.4	-85	0.9	-100	1.1	-100	1.6	-100	1.0	781
West M. P.	4.3	-99	1.1	-100	2.2	-100	4.4	-33	1.7	2525
East M. P.	5.8	-87	2.6	-100	3.0	-100	3.5	-39	1.5	3973
Gujarat region	2.0	-100	1.3	-100	1.8	-100	2.9	-51	1.9	265
Saurashtra & Kutch	2.0	-100	1.7	-100	3.2	-100	3.0	-100	2.2	-43
Konkan and Goa	16.5	-91	11.9	-99	7.3	-100	7.3	355	6.1	1274
Madhya Maharashtra	13.1	-92	9.3	-100	6.5	-100	7.8	508	6.4	1102
Marathwada	10.1	-100	10.4	-100	6.5	-100	6.5	229	3.2	1420
Vidarbha	7.7	-100	6.9	-100	4.2	-100	3.4	192	1.8	2950
Chhattisgarh	12.1	-100	9.3	-100	4.6	-100	2.1	-100	1.3	3274
Coastal A. P.	56.3	-100	46.1	-96	36.1	-71	30.3	170	21.1	73
Telangana	15.7	-99	16.4	-100	9.7	-99	6.4	25	3.3	386
Rayalseema	24.5	-99	27.2	-97	20.5	-45	17.8	257	14.9	44
TamilNadu & Pondicherry	49.8	-88	46.3	-92	44.1	8	44.8	325	38.9	68
Coastal Karnataka	33.0	-81	35.3	-100	22.6	-84	22.5	169	14.7	351
N. I. Karnataka	16.4	-99	22.0	-100	11.6	-94	9.4	95	4.9	382
S. I. Karnataka	27.9	-89	27.3	-99	17.7	-58	15.6	123	9.7	124
Kerala	70.0	-76	68.7	-85	62.6	-88	48.2	244	37.2	85
Lakshadweep	34.9	-93	33.2	-65	35.2	-3	35.6	278	23.9	-83

The subdivision like Andaman & Nicobar Islands, West Rajasthan, Saurashtra & Kutch, received scanty / deficient rainfall in last 5 weeks; Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Orissa, Jharkhand, Bihar, Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, East Rajasthan, Madhya Pradesh, Gujarat, Chhattisgarh and Lakshadweep Islands received scanty / deficient / no rainfall in 4 out of last 5 weeks; Punjab, Nagaland, Manipur, Mizoram, Tripura, Himachal Pradesh, Jammu & Kashmir, Konkan & Goa, Madhya Maharashtra, Marathwada, Vidarbha, Andhra Pradesh, Tamil Nadu & Pondicherry, 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 excess rainfall except Solan during last week.
- **Rainfall Forecast:** Dry weather is likely over the State.
- **Major Kharif Crops:** Rice, Vegetables.
- **Crop Stage:** Maize (harvesting), vegetables (early vegetative), 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.
- **Major rabi Crops: Wheat**
- **Advisory:**
 - Undertake spraying of Isoproturon @ 80g in 30-32 litres of water per kanal to control the weeds in early sown wheat. Termite affected plots may be treated with 80 ml chloropyriphos 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.
 - 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 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 45x45 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.
 - During apple picking if fruits of any plant having San Jose Scale, mark it and after fruit harvesting spray Chlorpyriphos (Durmet/Dursban 20 E.C. @ 400 ml per 200 liters of water).
 - To control the root borer in apple irrigate the basins after removing the upper soil with 10-15 liters of the solution of Chlorpyriphos 20 E.C. @ 5 ml per liter of water.

Uttarakhand

- **Realised Rainfall:** 7 districts of the state received excess rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice, Soyabean, Groundnut, Tur, mung, sesame.
- **Crop Stage:** Rice (grain maturity stage), pulses (pod maturity), oilseeds (seed formation)
- **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 Rabi crops: Wheat**

- **Advisory:**
 - Due to last week rainfall sufficient moisture has been developed in soil, hence under expected favourable temperature conditions, farmers are advised to continue sowing of Wheat during this week. The recommended high varieties of Wheat for this week for both irrigated and unirrigated conditions are UP-2572, UP-2584 UP-1109 and other local varieties. If farmers are using their own seed then treat it with @ 2.5 g Thiram per kg of seed for improving seed germination. Apply balanced fertilizers based on soil test values. However, if soil testing has not been possible, then under un-irrigated conditions, at the time of sowing mix 1 kg Urea, 4 kg SSP and 800 g MoP per Nali. Sowing must be done in lines 23 cm apart and depth must not exceed 5 cm. Farmers are also advised to remove weeds from early sown wheat crop by hand weeding
 - Farmers are advised to do sowing of lentil with varieties like VLMasoor-4, VL-Massor- 203, VL-Massor-1 etc. as sufficient moisture in soil has been developed due to last week rainfall. The line to line distance must be kept at 20 to 25 cm and depth must not exceed 4 to 5 cm.
- **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:**
 - Farmers are advised to complete harvesting & threshing operations of matured Soybean & Finger millets crops during this week also and keep the produce in safer place
 - Farmers are advised to continue weeding operation in vegetable crops. If pods of Vegetable pea are ready then plug them and sent to the nearby market. No need for applying irrigation in any crop including coriander, spinach, radish, menthe etc.

Punjab

- **Realised Rainfall:** 7 districts of the state received excess rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** maize, guar, til, urd, bajra, cowpea, cotton
- **Crop Stage:** Pulses (pod development/maturity), Cotton (boll formation), soybean (pod formation), maize (cob formation/maturity)
- **Crop Condition:** satisfactory.
- **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 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.
- **Major Rabi Crops:** toria(early vegetative), raya, rape seed & mustard (early vegetative)
 - It is right time to sow long duration varieties of wheat like DBW 17, PBW 550, PBW 502, PBW 343, WH 542, PDW 291, PDW 274 and PDW 233. Drill 55 kg DAP and 35 kg Urea or 55 kg urea and 155 kg single super phosphate per acre at the time of sowing. For control of loose smut of wheat treat the seed of all wheat varieties except durum wheat varieties with Raxil @ 1g/kg of seed or Vitavex @ 2g/kg of seed.
 - This is the optimum time for preparation of land and sowing of *rabi* intercrops like wheat, peas etc.
 - During November farmers are advised to undertake sowing transplanting of gobhi sarson, which is more profitable than direct sowing.
 - To early sown raya, apply 45 kg urea per acre with first irrigation.
 - Complete sowing of PDG 3, PDG 4 and GPF 2 varieties of gram under rainfed conditions. Treat the seed with Bavistin and Thiram (1:1) or Hexacap / Captan / Captaf @ 3 g/kg of seed for the control of blight.
 - Thinning operation in timely sown rape seed & mustard crops may be undertaken.
 - Farmers are advised to undertake the first cutting of Barseem. Conserve the surplus maize fodder as silage at milk dough stage.

- Complete sowing of autumn potato crop particularly for seed production during this period. Before sowing treat the potato tubers in 0.25% solution of Emisan 6 or Monceren (250 g or ml in 100 litres of water) for 10 min. to black scurf of potato. Discard & destroy late blight infected tubers. Keep the soil wet at tuberization to minimize the scab infection.
- This is the right time for sowing of English varieties of Radish (Japanese White, white Icicle), Turnip (Golden Ball), transplanting of 4 to 6 week old seedlings of cabbage, Chinese cabbage and late season cauliflower.
- Sow 100 g seed of tomato (TH-1/TH- 2312/TH 802/Punjab NR 7/Punjab Tropic/ Pb Chhuara/Punjab kesri) on raised beds.
- **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.
 - hairy caterpillar on toria. For its control, spray 500 ml of Thiodan 35 EC or 200 ml of Nuvan 85 SL in 80-125 litres of water or dust 15 kg Malathion 5 % per acre.
- **Animal Husbandry:** Regularly deworm the calves with piperazine liquid (4ml/kg body weight) first at 15 days of age, then 7 days later twice and then on 3 months of age and then 3 months after upto 1 year of age. Animals should come in heat in this month. For this watch the animals regularly in the morning and evening for heat symptoms. Because of scarcity of green fodder during this month, give silage to the animals alongwith mineral mixture @ 50 g per animal per day and common salt @ 20 g per animal per day. Protect young calves from cold weather by providing dry bedding and clothing (Jhull).

Haryana

- **Realised Rainfall:** Gurgaon received excess rainfall otherwise mainly dry weather was prevailed over the State during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Kharif Crops:** maize, guar, cotton.
- **Crop Stage:** pulses (pod formation/development), bajra (vegetative), toria (early vegetative).
- **Condition:** Satisfactory

Advisory:

- Farmers are advised not to burn the residue of rice crop.
- Apply need based irrigation to field crops and vegetables.
- As there was no significant rainfall during last week in most of the districts 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.
- 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, raya and mustard
 - **Advisory:**
 - This is the optimum time for sowing of wheat crop with certified seed of the varieties: WH-711, WH-283, WH 542, PBW-343, PBW 550, DWR 17, UP 2338 and HD 2687. To protect the wheat crop from termite attack, treat the seed with 60 ml chlorpyrifos 20 EC per 40 kg seed 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 Phosphate.
 - Sowing of oat and barseem for fodder may be done between mid of October to mid of November.
 - Complete the sowing of barley with certified seed of BG-25, BH-75 and C-164 under timely sown irrigated conditions and C-138 in rainfed conditions as earliest.

- **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 Hostathion 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.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - Saw fly and burgada (Dholia) in younger plants of mustard, to control 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 streptomycin in 200 liters of water per acre.
- **Animal Husbandry:** Possibility of fall in temperature, farmers are advised to protect against from cold winds. Farmers are advised to give the 50grams Iodized salt and 50 to 100 grams mineral mixture daily to keep them healthy.

Delhi

- **Realised Rainfall:** The State received excess rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Kharif Crops:** vegetables and rice
- **Crop Stage:** vegetative; tillering/panicle initiation (late paddy)
- **Crop Condition:** Satisfactory
- **Advisory:** In view of clear sunny days for the next five days farmers are advised to dry harvested paddy crop, which got wet due to untimely rains by spreading in an open dry surface and then only threshing should be done.
- **Crop Condition:** Good
 - **Advisory:** Sowing of gram can be taken up in this week. 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.
- **Major Rabi Crops: Wheat**
- **Advisory:**
 - Taking advantage of rains, farmers are advised to sow wheat. Present temperature is favourable for sowing of wheat. Seed rate: - 100 kg seed per hectare. Recommended cultivars: - CPAN-3004, Raj-3077, PBW-343, DBW-17. Sowing should be done when sky will be clear.
 - Sowing of late field pea may be undertaken in present weather conditions. Recommended cultivars: - Bourneville. Seed rate – 50 kg per hectare.
 - Farmers are advised to undertake earthing-up in potato if crop has attained a height of 15-22 cm. If so required, the practice may be repeated after 15 days.
 - Planting of late cultivars of potato may be done in present 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. Harvesting of mature crop and sending to market is advised.

- Transplanting of mature seedlings of tomato, cauliflower, cabbage and broccoli crop may be done in the raised bed.
- Sowing of Nantes group of carrot, 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 this weather conditions.
- Farmers are advised to undertake intercultural operations in vegetables to remove the weeds. Application of remaining doses of fertilizer in 15-25 day old crop should be done.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - late blight in early potato. spray Dithane M 45 or Ridomil @ 2-5 gm per litre at 8-10 days interval when sky will be clear.

Uttar Pradesh

- **Realised Rainfall:** Most of the districts of West Uttar Pradesh and many districts of East Uttar Pradesh received excess rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
 - **Major rabi crops:** Wheat, maize, gram, pea, and lentil.
 - Sowing of late sown varieties of wheat as Malviya – 234, Narendra - 236, T.W.T – 373 etc. may be taken up, using seeds @ 125 Kg/ha and purification of seeds may be done by carbendazim or thiram. 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.
 - Undertake weeding, intercultural operation in gram, pea, and lentil.
 - **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 the 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 and lentil and other pulses crops in sufficient moisture at the 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 for mild incidences of
 - mall formation disease in mango, spray the solution of Naphthalene Acetic acid @ 200 ppm or 4ml. Planofix in 9 litre of water.
 - cankers disease in lemon, spray the solution of Blitox 3-4 gram/litre in water.
 - fruit borer in tomato and brinjal, spray the solution of Carbaryl @ 2 g / litre of water.

J & K

- **Realised Rainfall:** 5 districts of the state received normal/excess rainfall and remaining districts received deficient/scanty rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Seasonal Crop with stage:** Vegetables (vegetative/flowering/fruited). This is proper time for sowing of *rabi* crops.
- **Crop Condition:** Good.

- **Advisory:**
 - Continue sowing of barley (cv : Ratna, Jyoti & Sonu) and normal wheat (cv HD2329, PBW-154, PBW-343, Raj-3077, RSP-303 and WH 542) for irrigated areas and PBW 175, PBW 396 and IWP 72 for rainfed areas with seed rate 100 kg/ha, during this period.
 - In rainfed areas where sowing is not done yet farmers can go for sowing of Mustard (Cv RLM-514, RLM-619, Kranti, Varuna and RH -30) can be done during this period with seed rate of 5kg/ha with recommended dose of fertilizer due to the presence of moisture in the soil.
 - Farmers are also advised to raise nursery for onion crop (Pusa Red).
 - Farmers are advised to continue the sowing of lentil (var L-9/12, PL-406 and L-4147) with seed rate 40 kg/ha. Hoeing and weeding in gram crop if crop is 40 days old.
 - Undertake top dressing of cauliflower, knoll-khol, potato, spinach, methi and garlic @ 60, 50,20, 20, 20 and 20 kg/ha. Rouging of virus effected plants from brinjal, tomato, cauliflower and cabbage crop.
 - Harvest early variety of sweet orange. Remove the stock sprout, suckers and water sprout from budded/grafted plants.
 - In brown sarson first thinning may be done any time 20 days after germination if field in condition. Maintain 10 cm plant to plant distance in line sown crop. While thinning, keep extra plants in a row as an allowance of frost injury. Left over excess plant can be removed during 1st week of March. Under broadcast condition maintain approximately 50 plants per sq m area at the time of 1st thinning.
 - Select well drained field, if sowing of peas is not done so far, sowing should be done at the seed rate of 5 kg/ kanal. Apply fertilizer @ 5.5 kg DAP /kanal and 4.25kg MOP/ kanal as basal. Required nitrogen is met through DAP applied.
 - Farmers are advised to sow lentil at the rate of 2.25 kg seed / kanal at a distance of 23 cm row to row. Use 2.5 kg seed/ kanal for bold seeded variety. Apply 1.8 kg urea, 6.5 kg DAP and 1.7 kg MOP /kanal as basal. For weed control spray pendimethalin @ 1 kg ai /ha with 500 liter water within 2-3 days after sowing. Provide adequate drainage to avoid water stagnation in field.
 - Continue sowing of Oats, orchardgrass, tallfescue, sainfoin, clover and lucerne. Assure proper moisture in field for good germination.
 - Undertake hoeing and weeding in transplanted crops like cabbage, cauliflower, kale and other standing crops.
 - Sowing of pea, spinach, methi, coriander etc. may continue. Planting of pran and garlic clove may continue. Transplanting of onion seedlings may be started if seedlings are ready. Provide adequate drainage to avoid water stagnation in field.
- **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:** Most of the districts of East Rajasthan received excess rainfall and mainly dry weather was prevailed over West Rajasthan.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **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.
- Top dress half doze of nitrogen (65 kg urea/ha) in mustard.
- 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.
- Looking downfall of temperature in next few days sowing of wheat should be done. Farmers should give pre sowing irrigation in the field before sowing of wheat. For the control of termites seed should be treated with 600 ml chlorpyrophos 20 EC or endosulphan 35 EC per 100 kg seeds. Improved varieties of wheat are HI-1531, HI-1500, and HI-8627, GW-273, GW-322, Raj-3777, Raj-3765, HI-8498, Raj-4037, etc.
- Undertake sowing of gram, lentil, pea, Lucerne cumin, Isabgol & Ajwain and Taramira.
- **Plant Protection:** Weather conditions are favourable for
 - mustard sawfly and aphid attack in mustard and other brassica. Keep watch in field and take appropriate protection measures. Cut the aphid infested twigs and bury them in soil. Apply 25 kg/ha Endosulphan 4% or Quinalphos 1.5% dust to manage saw fly.
 - Mango, Guava & pomegranate may be attacked by millibug insect. Hopper of this bug suck sap of tender leaves of these trees. To control this mix quinalphos 1.5 % or Endosulfan 4% granules @ 50-100 gm per tree in soil at a depth of 10-25 cm.

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

Bihar

- **Realised Rainfall:** 5 districts of the state received excess rainfall otherwise remaining districts 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/maturity), maize (cob maturity). This is proper time for sowing of *rabi* crops.
- **Crop Condition:** Good
- **Advisory**
 - Prepare the field for autumn planting sugarcane and no need of irrigation is required in early sowing of potato.
 - Undertake preparation of the field for sowing of *rabi* crops viz., Sarson (Var-Rajendra Sarson-1, Swarna, etc.), rai (Rajendra Rai Pachheti, Pusabold and Kranti) using seedrate @ 5kg/ha and sunflower like (modern, surya Paradovie, KBSH I-44 using seed rate 5kg/ha for hybrid and 8 kg/ha for composite variety, gram (Rajendra chana, Uday, Pusa 256, RAU 52, SG2) using seed rate 75 to 80 kg/ha sowing at a distance of 30x10 cm, Lentil (BR 25, Pant1406, 639, Malika, Arun) using seed rate @ 40 to 45 kg/ha and apply 20: 40: N:P kg/ha respectively. All pulses seed should be treated with Rhizobium culture @ 5 Pkt/ha or chemical treatments should be done with thiram or bavistine @ 2.0gm/kg of seed for good germination and minimum losses from insects and diseases.
 - *Rabi* maize varieties like Shaktiman 1,2,3,4: Laxmi, Rajendra Shankar Makka 1 and 2 should be sown at a distance of 75 x 20 cm and apply 20 kg seeds /ha for getting maximum yield. To drop the seed of onion in the nursery. Start the sowing of fodder crops like berseem, lucerne and oat in the field.
 - As the sharp fall in temperature is expected in coming days, which will be highly favourable for sowing of normal sown wheat varieties. Farmers are advised to start immediately the sowing of these varieties. The wheat varieties HD 2824, HD 2733, PBW 343, HP 1731, K 9107, HP 1761, PBW 434, UP 262, RW 346, RW 3413 are recommended for sowing under normal sowing conditions. Use seed

rate @125 kg/ha and fertilizer dose should be given @ 120:60:40 N:P:K kg/ha respectively the full dose of phosphate and potash and 1/3 of Nitrogen should be given at the time of last ploughing of the field. Seed should be treated with azotobactor, bavistine or vitavax @ 1gm/kg of seeds. Spacing should be given at a distance of 20cm row to row and prepared the field for timely sown wheat.

- Undertake sowing of un irrigated Oat varieties like: Ratna, Azad and K125 and seed rate @ 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.
- Harvest the early medium paddy crops and moisture percentage remain in grain is about 10-12% for grain storage after sundering.
- Prepare the field and transplanting late maturing cauliflower, cabbage, brinjal, tomato and sowing of medium & late potato like Kufri Badsah, Kurfi Sinduri, Kufri Lalima, Rajendra Alu 1, 2 and 3. Apply intercultural practices and plant protection measures like spraying of Malathion or Endoslfan-35 EC @1.5-2ml per liter of water to controls the insects-pest in vegetables crop.
- **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 excess rainfall during last week.
- **Rainfall Forecast:** No significant rainfall is likely over the State.
- **Major Kharif Crops:** Maize, Arhar, Til, Ragi, Vegetables
- **Crop Stage:** Direct sown rice (grain development), Maize (cob maturity), other *kharif* crops are at grain maturity stage.
- **Crop Condition:** Good
- **Advisory:**
 - 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. Select varieties of toria like 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. 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.
 - 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/hactare.

Orissa

- **Realised Rainfall:** Most of the districts of the state received excess rainfall otherwise remaining districts received no rainfall during last week.
- **Rainfall Forecast:** At few places over the State during next 24 hrs.
- **Major Kharif Crops:** Rice, ragi, arhar, maize, green gram, blackgram.

- **Crop Stage:** Pigeon pea (pod development), groundnut (pod maturity), cotton (vegetative), early sown maize (cob maturity), 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 postpone irrigation to the crops.
 - *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 on a non rainy day.
 - 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.
 - Complete sowing of *rabi* pulses by the end of November. Go for sowing of lentil, field pea and chickpea @ 20 kg/acre. Now the current temperature is optimum for sowing of Bengal gram. Use 25 kg seeds/acre. Grow the improved varieties like Gourav, Annegiri, Radhey Treat seeds with 2 g Carbendazim or 3 g Thiram per kg seed.
 - The current temperature is favourable for wheat sowing in inland districts. Select 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. To avoid the infestation of loose smut disease, soak the seeds in water for 5-6 hours, dry it in sun for 4-5 hours after draining out water then treat the seeds in the 2.5 g/kg of Bavistin of seeds before sowing. Sow the seeds in line at a row distance of 15 cm. Before sowing apply 15:20:20 kg NPK/acre. In termite prone areas, apply 1.5% Chloropyriphos @ 10 kg dust during the final land preparation.
 - Complete sowing of mustard under irrigated condition.
 - This is the optimum time 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 *piara* 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 excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at isolated places during next 24 hours and dry weather thereafter over the State
- **Major *Kharif* Crops:** Rice, vegetables
- **Crop Stage:** *aman* rice (grain development/harvesting)
- **Crop Condition:** Good
- **Advisory:**
 - Arrange for harvesting matured crop of paddy.
- **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:** Rainfall is likely at isolated places during next 24 hours and dry weather thereafter over the State.
- **Major Seasonal Crop with stage: Rice:** grain maturity **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: Many districts of the state received normal/excess rainfall during last week.

- **Rainfall Forecast:** Rain/thundershowers at a few places during next 24 hrs.
- **Major Kharif Crops:** *Sali* paddy
- **Crop Stage:** Rice (maturity/harvesting)
- **Crop Condition:** Good
- **Advisory:** Matured crop should be harvested immediately.
- **Major rabi crops:** Wheat, Potato, Pea and vegetables.
- Undertake land preparation and seed sowing of wheat in wheat areas.
- Farmers are advised to sow early varieties of cauliflower (eg. Early Kuwari, Pusa Keteki, Pusa Dipali etc.).
- 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.
- Farmers are advised to start planting of potato, tomato, cabbage, knol khol etc.
- 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.
- Farmers may collect the recommended varieties of *boro* paddy viz. Joymati, Bishnu prasad, Swarnabh, Dinanath etc. from certified sources. Sowing of seeds in nursery beds may be started from mid November and continued up to mid December.
- Start land preparation for sowing of onion and garlic under well drained, sandy loam condition.
- **Major Seasonal Crop with stage:** Vegetables (vegetative / flowering / fruiting / harvesting), early *ahu* rice (panicle initiation), maize (tasselling) and sugarcane (vegetative).
- **Crop Condition:** Good
- **Advisory:**
- Postpone irrigation to the crops as there was good rainfall in most of the districts of the State.

- Seeds of cabbage, cauliflower, knoll khol, tomato, brinjal etc., can be sown in nursery beds.
- 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.
 - early blight in potato, spray Equation-pro (1 ml/l) or Diathene M-45 (2g/l).
 - saw fly in mustard. For controlling it, spray Rogor @2ml/l.
 - late blight in tomato, *phytophthora* rot in onion and bacterial wilt and *phytophthora* fruit rot in brinjal is observed, spray Equation-pro (1 ml/l) or Acrobat (2 g/l) for their control. For purple blotch disease of onion, spray Dithane M-45 or Kavach (2 g/l).
 - Spray chemicals on a non rainy day.

Arunachal Pradesh

- **Realised Rainfall:** Many districts of the state received normal/excess rainfall except Changlang, Lower and Uppar Sabansiri, which received deficient/scanty/no rainfall during last week.
- **Rainfall Forecast:** At few places over the State during next 24 hrs.
- **Major Kharif Crops:** *Jhum* rice, WRC rice, millets
- **Crop Stage:** Rice, ragi (grain formation)
- **Crop Condition:** Good.
- **Advisory:**
 - 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/few places over Rayalaseema; at few places over Coastal Andhra Pradesh. Rainfall is likely at isolated places during next 24 hours and dry weather thereafter over Telangana
- **Major Kharif Crops:** Cotton
- **Crop Stage:** boll development (cotton).
- **Crop Condition:** Good.
- **Advisory:**
 - The fields which are completely inundated due to the floods to Krishna river and cotton crop completely damaged, alternate crops like greengram, blackgram, rabi redgram ,maize,chickpea, sorghum is recommended.
 - With the help of this rain third split dose of fertilizer ie, 35 kg urea and 15 kg MOP per acre is to be applied for Cotton crop. (Krishna, Guntur and Prakasam). Spraying 2% urea or 2% KNO₃ should be taken up two times at weekly intervals.
 - Suitable varieties for rabi NLR-145, NLR-34449,MTU-1010,MTU-1001, BPT- 5204. Treat the paddy seed with carbendazim @1g /kg seed. If BPT 5204 is to be planted than treat the seed with 0.6ml tricyclazole/kg seed . Apply carbofuran 3G@ 1.0kg/200m² ,5-7 days before pulling the nursery. Provide alley ways of 20cm width for every 2m for monitoring of BPH while transplanting.
 - 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 carbofuran @ 30g or imidacloprid @ 5ml and mancozeb @ 3g or carbendazim @ 2.0 per kg of seed.
 - Chickpea can be sown from October-November. Suitable chickpea varieties for sowing are ICCV-7, Swetha, Annegiri, Jyothi, ICCV-10, KAK-2, JG-11, LBeG-7. Seed treatment with Trichoderma

viride @ 4g/ kg seed in wilt prone areas. The crop should be sown with a spacing of 30X10cm. The recommended seed rate is 25-30 kg/acre. 50kg DAP or 35kg urea + 125 kg SSP/acre should be applied as basal fertilizers for chickpea.

- **Major Seasonal Crop:** Sugarcane and Vegetables
 - Farmers are advised to undertake intercultural operations in sugarcane and vegetables to keep the fields weed free.
 - 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
 - sheath blight in paddy (Ananthpur dist.), spray Hexaconazole or Validamycin @ 2 ml or Propiconazole @ 1 ml per litre of water.
 - neck blast in rice; spray Tricyclazole @ 0.6 g or Kasugamycin @ 2.5 ml per litre of water.
 - Alternaria in Cotton; spray Mancozeb @ 2.5g or Copper –Oxy-Chloride @ 3g or Cuman L @ 4ml 4-5 times at 15 days interval. Incidence of Jassids is also noticed; spray Dimethoate @ 2 ml or Imidacloprid @ 0.25 ml per litre of water.
 - black arm in cotton; spray Paushamycin or Plantamycin @ 1 g + Copper-Oxy-Chloride @ 30 g per 10 litres of water 3-4 times at 15 days interval. Incidence of whitefly is also noticed. To control, Spray Triazophos or Profenophos @ 2 ml and neem oil @ 5 ml on the under surface of leaves.
 - white fly in Sugarcane in Krishna district; spray Endosulphon or Malathion @ 2 ml per litre of water. Also scale insect and mealy bug in Sugarcane. To control them, detrash the basal leaves and spray Dimethoate @ 1.7 ml or Malathion @ 3 ml per litre of water.
 - tikka leaf spot and rust in Groundnut. to control, spray Mancozeb @ 3g or Hexaconazoic @ 2 ml per litre of water.
 - thrips in Chilli spray 1.6ml monocrotophos or 1.5g acephate or 2ml fipronil per litre of water.
 - stem borer in jowar (Ananthpur); apply Carbofuran 3G or Endosulfan granules @ 5-6 kg/ha.
 - Maruca leaf webber in Redgram (Ananthpur dist.). Collect and destroy the webbings made by the larvae. Spray Monocrotophos @1.6 ml or Quinolphos @ 2 ml with 1 ml of Dichlorvas per litre of water.

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:** Redgram and Cotton.
- **Crop Stage:** cotton (boll development), pod filling (red gram).
- **Crop Condition:** Major crop loss was reported due to flooding during end of September in northern parts of the state.
- **Advisory:**
 - Farmers are advised to undertake intercultural operations to keep the fields weed free.
- **Major Seasonal Crop:** Sugarcane and vegetables. This is proper time for sowing of *rabi* crops.
- **Advisory:**
 - As there was sufficient rainfall in most of the districts during last week, farmers are advised to postpone irrigation to the crops.
 - Before sowing Chickpea, treat the seeds being used for one hectare with 375 g. Rhizobium and 375 g. Phosphorus solublising bacteria. Also treat the seeds with 2 g. Carbandizeme or 4 g. Trichoderma to disease infestation to the crop.
 - Farmers in Udupi and Dakshin Kannada are advised to undertake sowing of pulse crops. Select among varieties like PS-16 (Green gram), C-152, TVX-944 (Cow pea), T-9, TAU-1 (Black gram), PHG-9 (Horse gram).
 - It is right time to give 2nd dose of fertilizer to plantation crops. For the four year old and above tree or vine, the below mentioned dose of N:P:K fertilizer can be given as the 2nd dose. 1) Arecanut:- 50:20:70 gm per tree. 2) Black pepper:- 50:20:70 gm per vine. 3) Banana: 90:54:113 gm per plant. 4) Coconut: 250:165:600 gm per tree. 5) Cardamom: 250:60:60 gm per tree.

- Farmers in Shimoga and Hassan districts are advised to undertake planting of banana. Select healthy and disease free suckers and apply 500 grams neemcake and 20grams Carbofuran per plant before planting.
- Since cloudy weather followed by rainfall expected for coming 5 days and farmers are suggested to postpone irrigation for Horticultural and Agriculture crops in Hiriyur dist.
- Farmers in Hiriyur district are advised to undertake sowing of Rabi crops like Bengal gram, sunflower rainfed and Maize and Onion under irrigated condition.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - Pod borer in pigeon pea crop. Follow the schedule for effective control of pod borer
 - 1 First Spray: If the crop is in 25-50 % flowering then go for spraying of ovicidal insecticide such as profenophos 2 ml or Thiodicarb 0.6g or Methomyl 0.6g per litre of water. About 250 litre of spray fluid is required for one acre of land.
 - 2 Second Spray: Neem based insecticide @ 2ml per liter of water
 - 3 Third Spray: If the pod borer is in big size then go for spraying of NPV 0.75 ml per liter of water.
 - 4 Fourth Spray: If there is no control of the pest then go for spraying of 0.3 ml Indoxicarb or 0.1 ml Spinosad per litre of water.
 - 5 Fifth Spray: Looking to the situation if there is need then go for spraying of 0.5 ml Alphamethrin or Fenvalarate per litre of water

In the places where there is shortage of water then go for dusting of Quinalphos or Malathion or Endosulphan dust @ 10 kg per acre.
 - Cercospora leaf spot in pigeon pea, spray the crop with 1 g Carbandizem dissolved in one liter of water and to manage Sterility Mosaic disease, up root and burn or burry the infested plants and then spray the crop with Dicofal 2.5 ml dissolved in one liter of water to control virus spreading vector.
 - Heliothis borer in cotton crop which is in first instar; spray Endosulphan 2.75 ml per litre of water
 - Heliothis pest has been noticed in already sown cheakpea crop. To manage the pest take up spraying of 0.3 Indoxicarb or 0.1 ml Spinosad dissolved in one liter of water. Nipping should be taken up in 35-40 days crop. This will facilitate branching resulting in increased yield.
 - Powdery mildew disease in sunflower, spray the crop with 1 ml Hexaconazole or 1 g. Carbandizeme dissolved in one liter of water.
 - Downey mildew disease in pruned grape, spray Equation pro@ 1 ml or Metalaxyl Mz @ 3 g. or Thiophynide methyl @ 1 ml dissolved in one liter of water. To manage Anthracnose, spray the crop with Thiophenate ethyl 1 ml dissolved in one liter of water.
 - Bacterial blight disease in pomegranate spray the crop with Streptomycin Sulphate 0.5 g. + Copper oxy-chloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Barax + 1 g. Calcium dissolved in one liter of water. To manage fruit borer and other pests in pomegranate, take up spraying of 2 ml Melathion dissolved in one liter of water.
 - scale insects in arecanut in Udupi and Dakshin Kannada; spray Dimethoate 1.7 ml/lit of water
 - Farmers in Uttar Kannada are advised to take up following plant protection measures looking to the local weather conditions.
 - Gundy bug in paddy. To control this dust the Melathion 8 kg/ ac. Brown plant hopper is also observed . Apply phorate granules @ 5kg/ac.
 - Stem borer in Ginger/Turmeric/Cardamom: Spray 3 g Carbaryl or 2.5 ml Chloropyriphos or 2 ml Endosulfan per litre of water. Rhizome rot of ginger: Drench the affected area with Redomil (1 g/litre) + Bleaching powder (2 g/litre). Twenty days after first drenching repeat the drenching of bleaching powder (2 g/litre) for effective control.
 - Heart rot in Pineapple: Remove the infested portion and drench the surrounding place of infestation with Copper Oxichloride (3 g/litre) and spray with Metalxyl MZ (1 g/litre).
 - Wilt in Black pepper: Spray with Metalxyl MZ (1 g/litre).
 - Wilt in Vanilla vines: Spray 2 gm SAAF or 1 gm Carbendezim or 2 gm Mancozeb per liter of water.

- Leaf spot in Coconut : Spray with 2 gm Mancozeb or 3 gm copper oxy chloride per lit of water.
- Tea Mosquito bug in Cashew: Spray Monocrotophos @ 1ml/litre of water or Dimethoate @ 2ml/litre of water.
- Panama wilt in Banana: 1 gm Carbendazim /lit Drench 3-4 lit per plant.

Kerala

- **Realised Rainfall:** Most of the districts received excess/normal 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, jassids, 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 many 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.
 - Farmers are advised to take paddy nursery sowing in the current week.
 - Farmers are advised to apply top dressing of nitrogenous fertilizers based on leaf colour chart (LCC) after current spells of rain.
 - Farmers are advised to take up land preparation activities like ploughing, puddling, green manure in corporation and leveling for paddy main field.
 - In vegetable belt area, farmers are advised to spray NAA (Growth hormone) after current spells of rain for controlling of flower dropping and increase fruit selling.
 - Farmers involved in ground nut sowing are advised to choose the varieties suitable for the present season (Karthigai pattam) like VRI-6, 7 and TMV-13. Seeds (50-55 kg per acre) should first be treated with *Trichoderma viridii* (10 grams/kg of seed). Green gram varieties like Vamban-2 or Vamban-7 and black gram varieties like Vamban-4 or Vamban-5 may be preferred.
 - Place a bag of neem cake at the mouth of the irrigation channel to control insect and pest. While top dressing neem cake is mixed with urea @ 1:5 ratio to reduce pest population and to increase the yield.
 - Drain the excess rain water, stagnating in the Samba and *Thaladi* fields.
 - Use Leaf Colour Chart (LCC) when applying nitrogenous fertilizer
 - Apply the following recommended chemical fertilizers; 100% of phosphorous, 50% nitrogen & Potash and 200 kg of gypsum as basal just before last ploughing, level the field properly and transplant the rice seedlings (*Thaladi* crop). Transplant 2 to 3 seedlings with a spacing of 20 cm between rows and 10 cm between plants to get 50 hills/m². Complete the gap filling within 10 days after transplanting.
 - Apply 10 kg of ZnSO₄ per acre after transplanting, do not incorporate.
 - Hand weeding is to be done on 20 & 45 DAT in *Thaladi* crop.
 - As rainfall is expected in the forth coming days, postpone irrigation to gardenland crops.
- **Plant Protection:**
 - Farmers are noticed diseases like blast, sheath blight, sheath rot, bacterial blight and bacterial streak, spray application of *pseudomonas fluorescens* talc formulation @ 5g/litre, three times from 45 DAS at 10 days intervals.
 - Prevailing weather condition favors the incidence of Crown rot in Coconut. To prevent this swab the infected crowns with 1% Bordeaux mixture.
 - In banana there is chance of wilt incidence. To prevent the incidence stem injection of 2% carbendazim @ 3ml/tree can be given.
 - In Rubber, incidence of Powdery mildew may occur. To control this 0.2% sulphur dust can be used.
 - In samba and *Thaladi* crop spray Carbendazim or Tricyclozole @ 200 ml in 200 L of water to control blast and bacterial leaf spot disease and spray 20% cow dung slurry to control Bacterial Leaf Blight diseases.
 - Spray Neem seed kernel extract 5% or Azadiractin 0.03 per cent solution with sticking agent. khadi gopuram bar soap @ 3g to prevent Thrips infestation.
 - Set up light trap and yellow sticky trap to attract paddy pest and sucking pest in cotton and vegetables.
 - To minimize the mealy bug menace, destroy the weed hosts in and around the field.
 - 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 the state during 48 hours and mainly dry there after.

- **Major Kharif Crops:** Rice, ragi, cotton, Vegetables, Pulses, bajra, groundnut, tur, horse gram, soybean, jowar
- **Major rabi Crops:** jowar, safflower, sunflower, linseed, gram, wheat, vegetables.
- **Crop Stage:** *Kharif* paddy (mid late & late variety at grain maturity / harvesting), red gram(flowering / pod formation), *kharif* jowar (harvesting), *Kharif* & irrigated cotton(boll maturity / picking), groundnut (harvesting), and *rabi* jowar, safflower, (vegetative growth stage), sunflower, linseed (early vegetative growth) gram (sowing / germination), wheat(sowing)
- **Crop Condition:** Satisfactory, crops like late paddy, grapes, cotton are likely to damaged due to untimely rain
- **Advisory:** Conserve moisture in the crop field at maturity stage.
 - Continue sowing of *rabi* gram and wheat.
 - Thinning and weeding may be done early sown crop.
 - Postpone irrigation to standing crops as there was excess rainfall in most of the districts during last week.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables.
 - Undertake spraying, fertilizer application in the standing crops.
 - Complete harvesting of already matured groundnut, jowar & mid late and late variety of rice.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
- blast and powdery mildew disease on grapes, for control spray Copper Oxy chloride, Mancozeb or Captan. For control of downy mildew, deep the grape bunch in a solution of Zebralic acid, Phenamedon plus Mancozeb 250gm per 100 liter of water.
- leaf blight disease of onion spray, Mancozeb 0.25% + 0.10 % sticker at an interval of 15 days.For control of thrips on onion spray, Dimeton @ 10 ml or Carbosulfan @ 10 ml per 10 lit of water at an interval of 15 days
- 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.

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 (silking/ 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 rabi Crops:** Rice, castor, pigeon pea, cotton, groundnut, bajra, sesamum, cluster bean, pulses

- **Crop Stage:** mustard (early vegetative)
- **Crop Condition:** Crop condition is satisfactory
- **Advisory:**
 - Undertake weeding, intercultural operations in early sown mustard crop. After that apply first irrigation to the crop.
 - Undertake land preparation operations for sowing of potato.
 - Undertake sowing of wheat. For timely sowing select cultivars viz., GW- 496, GW 273 GW- 503 and GW- 322. Farmers may use seed rate @ 125 kg/ ha. Lines sowing distance- 22.5 cm and depth of sowing is 5- 6 cm for better germination. Seed treated before sowing with Endosulfan 35 EC @ 700ml per 100 kg seed to control termite in the field. Seeds are to be treated during night time before sowing. Apply FYM @ 10-15 t/hectare and basal dose of chemical fertilizers @ 60 kg Nitrogen + 60 kg Phosphorus per hectare.
 - Undertake land preparation and sowing of gram, amaranthus and cumin.
- **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.
 - 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 Methyl parathion 2 % powder surrounding the crop stem.
 - mealy bug in orchard, dust Methyl 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 gm in 10 liters of water, for thrips spray triazophos 20 ml or methyl-o-dematon 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 at least 12 to 15 pheromone 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:** Dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice,
- **Crop Stage:** grain formation/ development (rice)
- **Crop Condition:** Satisfactory.
- **Advisory:**
 - Stop irrigation 15 days prior to the harvesting of rice. Undertake harvesting of matured crops 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.

- Undertake pit preparation for planting of new orchard 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 potato, onion , rabi crops and vegetable crops.
- Undertake sowing of wheat, chickpea, lentil, linseed and field pea.
- Sowing of berseem, dhania, pyaj, and lahsun.
- Undertake sowing of desi gram with varieties JG 130, JG 11, JG 315, JG 16.
- **Plant Protection:**
 - Weather conditions are favourable for-
 - boll worm cotton crops, spray Profenophos 40% EC @ 3.0 ml/l.
 - pod borer in pigeonpea, spray Profenophos 50 EC @ 1.5 l/ha.
 - Mealy bug in cotton, spray Prophenophos 2 ml per litre of water.
 - 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.
 - powdery mildew in vegetables farmers are advised to take up the spraying of 1.0 g Carbendazime dissolved in one liter of water.
 - fruit fly in ber, farmers are advised that they should spray Endosulphon 35 EC @ 2 ml/l and second spray after 15 days.
 - Caterpillar in cabbage, Spray Melathyon 1 ml per litre of water.
- **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.
 - The animals should be dewormed through deworming tablets in Indore.
 - Arrange for vaccination for Foot and Mouth disease. Use potassium permanganate @ 5.0 ml per liter of water for infected animals in Jabalpur.

Chattisgarh

- **Realised Rainfall:** Mainly dry weather was prevailed over the State.
- **Rainfall Forecast:** Rainfall is likely at isolated places over the State during next 24 hrs. and dry weather thereafter.
- **Major Kharif Crops:** Rice,
- **Crop Stage:** grain development (rice),
- **Crop Condition:** Good
- **Advisory:** Start harvesting the matured crops of rice
- 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:**
 - Undertake sowing of pulses, potato, onion, gram, pea, lentil and safflower.
 - Undertake planting of sugarcane crop with varieties CO 86032, CO 86141.
- **Plant Protection:**
 - *Gandhibug* on ragi, spray Carbaryl 2 gm per litre of water.
 - Present weather conditions are conducive for multiplication of brown plant hopper in late duration rice varieties which is at grain filling stage. Hence, the farmers are suggested to keep watch over the crop and if the damage will be above ETL it is advised to spray Carbaryl WP @ 2.5 kg/ha or Emidachloprid @ 7.0 ml/10.0 litre of water. As the insects of BPH are found at the base of the crop, hence the spraying should be done at the bottom portion of the crop for effective control.
 - Cloudy to partly cloudy weather conditions are prevailing since last 15 days, such cloudy weather conditions are conducive for multiplication of pod borer complex in pigeon pea which is at flowering/pod formation stage and aphids in vegetables/beans. Hence, the farmers are advised to keep watch over the crops and if necessary spray Metasystox or Dimethoate @ 1.5 ml/ litre of water.