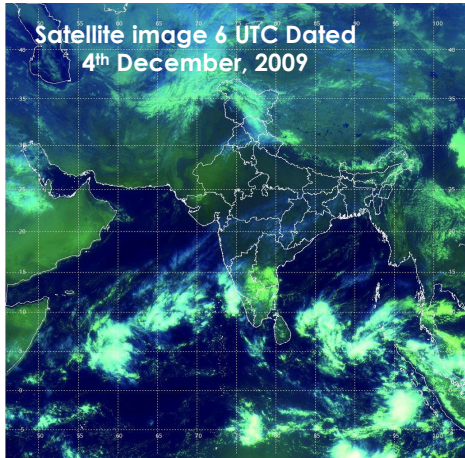




National Agromet Advisory Bulletin

Thursday, 3rd December, 2009 (For the period 3rd to 7th December, 2009)



Rainfall Forecast valid upto 1430 hours IST of 6th December, 2009

- **Many Places:** Lakshadweep, Andaman & Nicobar Islands
- **Few Places:** Tamil Nadu & Pondicherry, Kerala
- **Isolated Places:** Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Himachal Pradesh, Jammu & Kashmir, Coastal Andhra Pradesh, Rayalaseema, Coastal Karnataka, South Interior Karnataka
- **Dry:** Gangetic West Bengal, Orissa, Jharkhand, Bihar, East Uttar Pradesh, West Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, West Rajasthan, East Rajasthan, West Madhya Pradesh, East Madhya Pradesh, Vidarbha, Chhattisgarh, Gujarat Region, Saurashtra, Kutch & Diu, Konkan & Goa, Madhya Maharashtra, Marathawada, Telengana
- **Mainly dry Weather:** Sub Himalayan West Bengal & Sikkim, North Interior Karnataka

Weather Outlook (upto 1430 hrs IST of 8th December, 2009)

- Isolated to scattered rainfall likely over extreme south Peninsular India and northeastern states.
- Dry weather conditions are likely over remaining parts of the country.

Agromet advisories for irrigation and *rabi* sowing

- As there was no significant rain in most of the 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.
- Farmers in Uttarakhand, Punjab and Haryana are advised to provide light irrigation to wheat where the crops in crown root initiation stage.
- Farmers in Jammu & Kashmir, Rajasthan, Punjab, Himachal Pradesh, Uttar Pradesh are advised to undertake field preparation and sowing of late sown wheat.
- Farmers in Orissa are advised to undertake field preparation and sowing of wheat, field pea, gram, groundnut and sunflower.
- Farmers in Tamil Nadu are advised to undertake transplanting of rice (SRI). Undertake sowing of cotton in southern districts.

Advisories for pest and disease

- Due to favourable weather condition, there are chances of pest and disease incidences in the following regions:
 - Pod borer in pea, painted bug and saw fly in mustard, mealy bug in mango, guava and pomegranate in Rajasthan.
 - Stem borer, leaf folder, green leaf hopper, bacterial leaf spot and blight in rice in Tamil Nadu.
 - Blight in potato, saw fly in mustard and late blight in tomato in Assam.
 - Aphids in jowar and pod borer in red gram in Maharashtra.
- Farmers are advised to undertake plant protection measures, if required.

Issued by

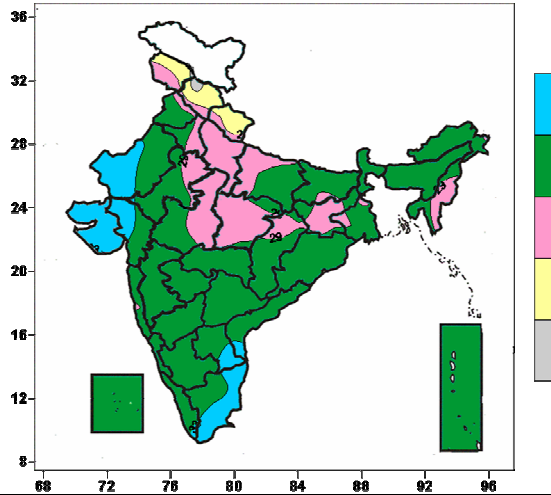
National Agrometeorological Advisory Service Centre,

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

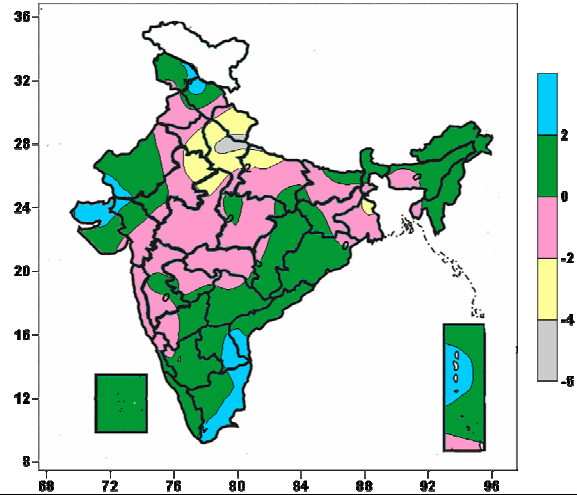
The bulletin is also displayed in the website (<http://www.imdagrimet.org>) of the Division

Contour maps for the week ending 2.12.09

Actual Mean Maximum Temperature (°C) in India for the week ending 02.12.09



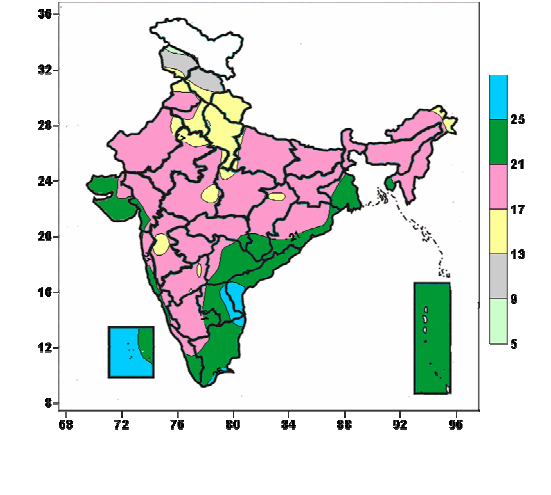
Maximum Temperature (°C) Anomaly in India for the week ending 02.12.09



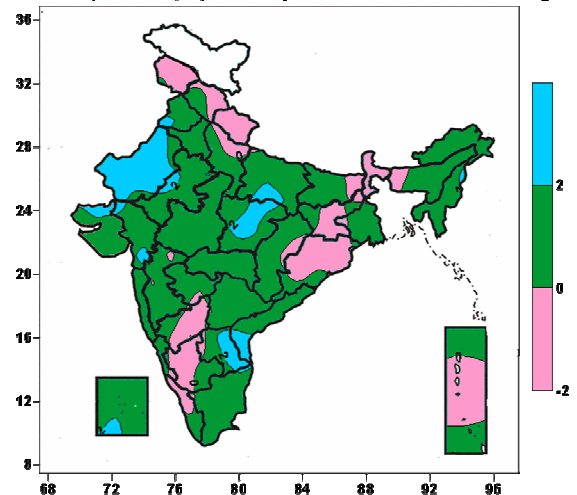
Actual Mean Maximum temperature ranged between 33⁰C and above over most parts of Saurashtra & Kutch, Coastal Tamil Nadu, some parts of West Rajasthan, Gujarat, Kerala, Coastal Andhra Pradesh, Rayalaseema, 25 to 29⁰C over most parts of West Uttar Pradesh, East Madhya Pradesh, Jharkhand, Manipur, some parts of Jammu & Kashmir, Punjab, Haryana, Delhi, Himachal Pradesh Uttarakhand, East Uttar Pradesh, East Rajasthan, Bihar, Gangetic West Bengal, Nagaland, Mizoram, West Madhya Pradesh, Chhattisgarh, 21 to 25⁰C over most parts of Himachal Pradesh, Uttarakhand, some parts of Jammu & Kashmir, 17 to 21⁰C over some parts of Himachal Pradesh, 29 to 33⁰C over remaining parts of the country.

Actual Mean Maximum temperature anomaly ranged between 2⁰C and above over some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, Gujarat, Saurashtra, Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, Andaman & Nicobar Islands. -2 to 0⁰C over most parts of Punjab, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Pradesh, Maharashtra, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, West Uttar Pradesh, Rajasthan, Assam & Meghalaya, Tripura, Orissa, Chhattisgarh, Gujarat, Kutch, Telengana, Karnataka, -4 to -2⁰C over most parts of Uttarakhand, some parts of Haryana, Delhi, Uttar Pradesh, East Rajasthan, West Madhya Pradesh, Gangetic West Bengal, -6 to -4⁰C over some parts of Uttarakhand, Uttar Pradesh, 0 to 2⁰C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 02.12.09



Minimum Temperature (°C) Anomaly in India for the week ending 02.12.09



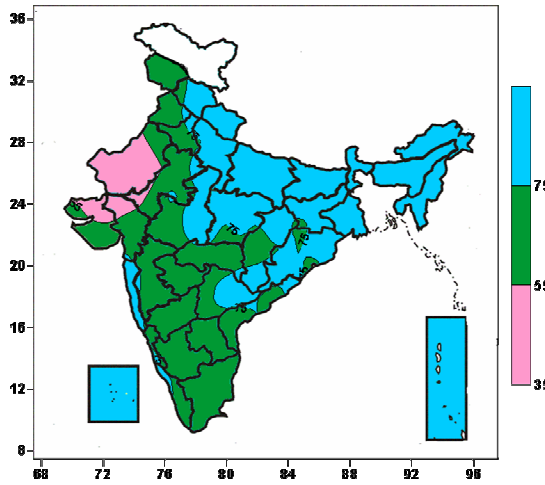
Actual Mean Minimum Temperature ranged between 25⁰C and above over most parts of Lakshadweep Islands, some parts of Coastal Andhra Pradesh, Telengana, Tamil Nadu, 21 to 25⁰C over most parts of Gangetic West Bengal, Saurashtra & Kutch, Goa, Andhra Pradesh, Tamil Nadu, Andaman & Nicobar Islands, some parts of Tripura, Gujarat, Orissa, Chhattisgarh, Vidarbha, South Interior Karnataka, Kerala, Lakshadweep Islands, 13 to 17⁰C over most parts of Uttarakhand, Haryana, Delhi, West Uttar Pradesh, some parts of Jammu & Kashmir, Himachal

Minimum Temperature anomaly ranged between 2⁰C and above over most parts of West Rajasthan, some parts of Punjab, East Uttar Pradesh, East Rajasthan, Nagaland, Gujarat, Saurashtra, East Madhya Pradesh, Coastal Andhra Pradesh, Rayalaseema, Lakshadweep Islands, -2 to 0⁰C over most parts of Jammu & Kashmir, Uttarakhand, Jharkhand, Sub-Himalayan West Bengal, Sikkim, Orissa, North & South Interior Karnataka, Kerala, Andaman & Nicobar Islands, some parts of Himachal Pradesh, Uttar Pradesh, Bihar, Gangetic West Bengal, Assam & Meghalaya,

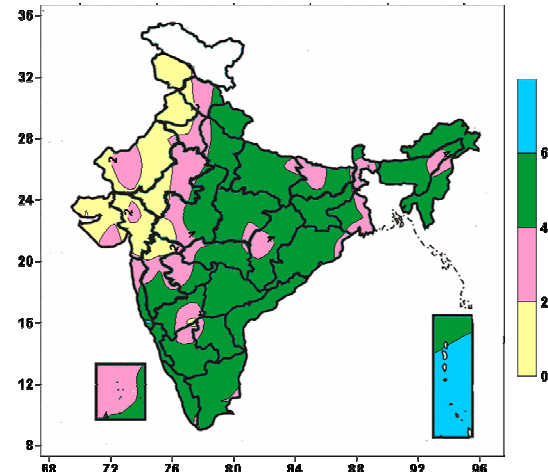
Pradesh, Punjab, Rajasthan, East Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Chhattisgarh, Madhya Maharashtra, North Interior Karnataka, 9 to 13°C over most parts of Himachal Pradesh, some parts of Jammu & Kashmir, 5°C to 9°C some parts of Jammu & Kashmir, 17°C to 21°C over remaining parts of the country.

Chhattisgarh, Madhya Maharashtra, MARathwada, Coastal Karnataka, Rayalaseema, 0 to 2 °C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 02.12.09



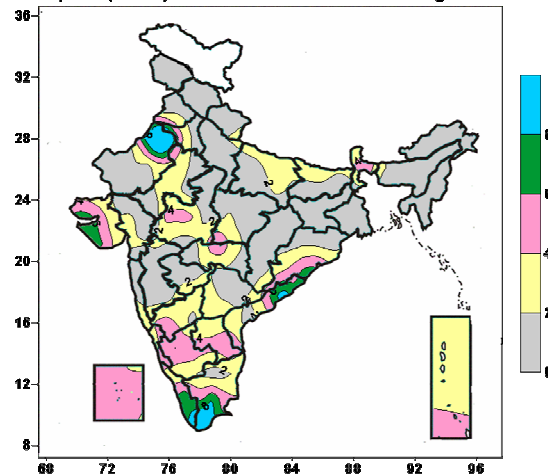
Cloud amount (okta) over India for the week ending 02.12.09



Relative humidity more than 75% over most parts of Himachal Pradesh, Uttarakhand, Uttar Pradesh, East India, Northeast India, Madhya Pradesh, Chhattisgarh, Konkan & Goa, Lakshdweep, Andaman & Nicobar Islands, some parts of Punjab, Haryana, East Rajasthan, Madhya Maharashtra, Coastal Karnataka, Coastal Andhra Pradesh, Telengana, Kerala, 35 to 55% over most parts of West Rajasthan, some parts of East Rajasthan, Saurashtra, Gujarat, 55 to 75 % over remaining parts of the country.

Cloud amount 6 okta and above over most parts of Andaman & Nicobar Island, 2 to 4 okta over most parts of Himachal Pradesh, Haryana, Delhi, Lakshdweep Islands, some parts of Uttar Pradesh, Rajasthan, Bihar, West Bengal, Assam, Nagaland, Orissa, Madhya Pradesh, Chhattisgarh, Kutchh, Gujarat, Maharashtra, Rayalaseema, North & South Interior Karnataka, Kerala, Tamil Nadu, 0 to 2 okta over most parts of Jammu & Kashmir, Punjab, Rajasthan, Gujarat, Saurashtra & Kutchh, some parts of Himachal Pradesh, Haryana, West Madhya Pradesh, Madhya Maharashtra, Interior Karnataka, 4 to 6 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 02.12.09



Wind speed ranged between 8 knots and above over some parts of West Rajasthan, Coastal Andhra Pradesh, Kerala, Tamil Nadu, 6 to 8 knots over some parts of West Rajasthan, Haryana, Saurashtra & Kutch, Orissa, Coastal Andhra Pradesh, Kerala, Tamil Nadu, 4 to 6 knots over most parts of Coastal Karnataka, South Interior Karnataka, Lakshdweep Islands, some parts of Punjab, Haryana, Rajasthan, Sub-Himalayan West Bengal, Saurashtra & Kutchh, Madhya Pradesh, Orissa, Vidarbha, Coastal Andhra Pradesh, Rayalaseema, North Interior Karnataka, Kerala, Tamil Nadu, Andaman & Nicobar Islands, 2 to 4 knots over most parts of North Interior Karnataka, Andaman & Nicobar Islands, some parts of Punjab, Haryana, Uttarakhand, Uttar Pradesh, Rajasthan, Bihar, Sub-Himalayan West Bengal, Sikkim, Assam, Orissa, Saurashtra & Kutch, Gujarat, Madhya Pradesh, Chhattisgarh, Maharashtra, Andhra Pradesh, Coastal Karnataka, South Interior Karnataka, Kerala, Tamil Nadu, Lakshdweep Islands. 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									
	4 th November		11 th November		18 th November		25 th November		2 nd December	
	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.	Normal (mm)	(%) Dep.
A & N Islands	60.8	-92	64.3	-64	61.0	-85	50	-64	41.6	-54
Arunachal Pradesh	7.5	-100	14.0	-94	5.6	433	9.7	-44	10.4	-95
Assam and Meghalaya	9.3	-100	9.2	-97	3.7	175	3.9	-80	4.5	-99
NMMT	17.7	-100	16.6	-100	6.4	102	5.2	-99	5.3	-100
SH West Bengal & Sikkim	9.0	-100	4.1	-100	2.8	-29	2.2	-100	3.7	-99
Gangetic West Bengal	12.2	-95	7.1	-96	5.0	146	3.6	-95	3.7	-100
Orissa	15.4	-100	8.2	-52	5.9	230	4.7	71	1.8	-100
Jharkhand	4.8	-100	3.3	-94	1.7	526	2.0	-100	2.2	-100
Bihar	4.4	-100	1.2	-100	0.6	538	0.5	-100	1.5	-100
East Uttar Pradesh	3.5	-100	1.0	-100	0.6	1141	0.5	-100	0.8	-100
West Uttar Pradesh	1.8	-100	1.3	-97	0.6	2273	0.8	-100	1.0	-100
Uttarakhand	4.2	-100	1.8	-22	1.1	525	2.1	-100	1.8	-100
Haryana, Chandigarh & Delhi	1.5	-100	0.5	-62	0.4	550	1.4	-100	1.4	-100
Punjab	1.8	-100	0.8	91	0.7	539	1.3	-100	1.3	-100
Himachal Pradesh	4.4	-100	2.8	380	2.7	1157	6.8	-100	5.1	-100
J & K	7.0	-100	5.5	274	6.7	262	7.6	-96	9.2	-86
West Rajasthan	0.8	-100	0.3	-100	0.5	-96	0.8	-100	0.5	-100
East Rajasthan	1.1	-100	1.6	-100	1.0	781	2.9	-100	1.2	-100
West M. P.	2.2	-100	4.4	-33	1.7	2525	3.1	-100	3.6	-100
East M. P.	3.0	-100	3.5	-39	1.5	3973	3.5	-100	3.0	-100
Gujarat region	1.8	-100	2.9	-51	1.9	265	4.2	-100	1.4	-100
Saurashtra & Kutch	3.2	-100	3.0	-100	2.2	-43	2.9	-100	0.5	-100
Konkan and Goa	7.3	-100	7.3	355	6.1	1274	7.3	-85	1.6	-100
Madhya Maharashtra	6.5	-100	7.8	508	6.4	1102	7.3	-78	3.5	-100
Marathwada	6.5	-100	6.5	229	3.2	1420	4.4	-100	4.7	-100
Vidarbha	4.2	-100	3.4	192	1.8	2950	5.2	-100	3.5	-100
Chhattisgarh	4.6	-100	2.1	-100	1.3	3274	3.0	-60	2.3	-100
Coastal A. P.	36.1	-71	30.3	170	21.1	73	20.5	118	11.7	-100
Telangana	9.7	-99	6.4	25	3.3	386	3.5	122	2.3	-100
Rayalseema	20.5	-45	17.8	257	14.9	44	13.7	2	8.4	-100
TamilNadu & Pondicherry	44.1	8	44.8	325	38.9	68	34.6	-1	26.4	-69
Coastal Karnataka	22.6	-84	22.5	169	14.7	351	14.1	15	6.4	-75
N. I. Karnataka	11.6	-94	9.4	95	4.9	382	3.9	92	3.3	-100
S. I. Karnataka	17.7	-58	15.6	123	9.7	124	10.1	58	3.8	-95
Kerala	62.6	-88	48.2	244	37.2	85	31.3	15	13.8	-53
Lakshadweep	35.2	-3	35.6	278	23.9	-83	24.7	-43	19.7	-94

The subdivision like Andaman & Nicobar Islands, West Rajasthan, Saurashtra & Kutch, received scanty / deficient rainfall in last 5 weeks; Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal & Sikkim, Jharkhand, Bihar, Uttar Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, East Rajasthan, Madhya Pradesh, Gujarat and Chhattisgarh received scanty / deficient / no rainfall in 4 out of last 5 weeks; Orissa, Punjab, Himachal Pradesh, Jammu & Kashmir, Konkan & Goa, Madhya Maharashtra, Marathwada and Vidarbha and Lakshadweep Islands 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		(-60 to -99 %) scanty rainfall
	(-19 to +19%) normal rainfall		(-100%) no rainfall
	(-20 to -59%) deficient 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 no rainfall during last week in the State.
- **Rainfall Forecast:** Isolated rainfall during next two days and mainly dry weather thereafter over the State.
- **Major rabi Crops: Wheat**
- **Advisory:**
 - It is time for planting of planting of late sown rainfed wheat in the mid hills of the State. H.S- 295, HPW -42 varieties are suitable for the late sown conditions. Against fungal disease, seed treatment with 2.5g bavistin or savin / Kg of seed should be done before sowing. Termite affected plots may be treated with 80 ml chloropyrophos mixed with 1kg of sand and spread over one kanal area of plot. In the timely planted wheat crop where weeds are 2-3 leaves stage , spray isoproturon @80 gram per 30-32 litres of water in one kanal for the control of weeds.
 - The sowing of gram and lentil in lower belt may also be completed.
 - To protect the wheat seed from fungal disease, seed treatment with 2.5g bavistin or savin / Kg should be done before sowing.
 - Sowing of Gobhi sarson may be completed.
- **Major Seasonal Crop:** Fruit crops, Flower crops and Vegetables
- **Advisory:**
 - Farmers are advised to prepare the pits for planting the winter plants like peacunut, walnut, almond plum and peach. Farmers are advised to undertake field preparation and planting for new orchards.
 - Training and pruning work can be completed in the tea. It is time for nursery raising of tea plants in polythene tubes. Do lopping of the tree in the tea orchards to have more sunlight.
 - 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)
 - It is time for planting the winter flowers annuals viz. Calendula, Aster, larkspur, dianthus, African daisy. Stasis, lupines, petunia, flox, nicotiana, vanadium and torinia. Flowers can be raised in the pots, hanging pots rocks etc. Keep the flowers beds free from the weeds, The flowers affected with aphids, spray malathion @0.05% for the control. Remove the apical shoot in winter annuals to have more side branches to cover the entire pot. It is time for sowing of bulbous flowers like Fresia, tulips and nargis etc.
 - Undertake weeding, intercultural operations and top dressing of fertilizers.
 - It is also an optimum time for transplanting of strawberries in raised beds.
 - Undertake sowing of radish (var. Early Meno white, Japanese white, Chinese pink and Plamp Hriday), Peas(Palm priya or Linclon), in the fields. Treat the seed with 2.5 g Sevin or bavistin per kg of seed before sowing of peas crop. Drench the crop with Dithane M-45 ,2g and Bavistin 1 g for the control of damping off of nursery.
 - In view of the high evaporative demand of the atmosphere and no rainfall occurred during the previous weeks and with no chance of getting the rain during coming week, the farmers are advised to apply frequent irrigation to vegetable and floricultural crops.
 - **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - leaf minor in citrus. For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water. For the control of citrus canker spray Streptocycline Sulphate 500 ppm solution. Remove the shoots below the graft or bud unions.
 - downy mildew in cruciferous vegetables, for control spray ridomil M-Z @ 25 g per litres of water at 15 days interval. For control of powdery mildew in peas spray celfex@25 g per 10 litres of water of karathane@5 ml per 10 litres 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.
- **Animal Husbandry:** Feed pregnant and lactating cows and buffaloes with balance feed including mineral mixture. The night temperature is falling and the newly born calves may be protecting from the

cold. For milch animals follow schedule of 1 kg feed+50g mineral mixtures per 2 litres of milk. This schedule will maintain the reproductive ability of animals. It has been observed that dairy animals are deficient in minerals elements which are the sole reason of repeat breeding and other gyne related diseases in animals. So ensure to give 50 g mineral mixture to animals daily. Ensure cleanliness in cows having advanced pregnancy to avoid mastitis.

Uttarakhand

- **Realised Rainfall:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Dry weather is likely over the State during next two days and mainly dry weather thereafter.
- **Major Rabi crops:** Wheat, mustard
- **Advisory:**
 - Due to expected dry weather conditions during this week, farmers having irrigation facilities are advised to give first irrigation in wheat crop at Crown Root Initiation stage and then top dress @ 2.5 kg Urea per Nali when soil moisture is sufficient. Do weeding for remove weeds for better growth of wheat crop by hand hoe. Farmers may continue sowing of wheat during this week also. The recommended high varieties of Wheat for this week for both irrigated and un-irrigated conditions are UP-2572, UP-2584 UP-1109, HS-2395, HD-2380, HS-420 etc.
 - Due to expected dry weather condition, farmers are also advised to complete sowing of lentil with available varieties under sufficient moisture in soil.
 - Provide irrigation, weeding and thinning in mustard crop and topdress 1/2 kg Urea per Nali if not done so far. Do weeding & thinning operations in other standing crops like Pea, Chickpea, Rajmash etc.for their better growth.
- **Major Seasonal Crop with stage:** Sugarcane ratoon (planting/early vegetative), cabbage, garlic, tomato (vegetative), French bean (early vegetative).
- **Crop Condition:** Good
 - **Advisory:**
 - Farmers are advised to weeding in early sown garlic crop and give irrigation for better crop growth. However, if irrigation facilities are not available, then put straw mulch in between rows for moisture conservation. Continue digging of potato crop on maturity of tubers as dry weather is expected and then take them to the market for selling. Remove weeds from other standing vegetable crops and keep grass lying on the ground for conserving soil moisture. If pods of vegetable pea are ready then plug them and sent to the nearby market. Apply irrigation in crops including coriander, spinach, radish, menthe etc. under low soil moisture.
 - **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - aphids in mustard. If the aphids are seen in 10 % population, then spray 200 SL Emidachlorepid @ 3 ml per 10 litre of water.

Punjab

- **Realised Rainfall:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Dry weather is likely over the State.
- **Major Rabi Crops with stage:** toria(seed formation), raya, rape seed & mustard (early vegetative), potato(vegetative)
 - Undertake sowing of late sown varieties and the late sown wheat may be given 25 percent less nitrogen than the recommended dose.
 - As dry weather is expected, farmers are advised to give irrigation to the wheat crop. Apply second dose of 55 kg urea per acre to wheat before first irrigation.
 - Undertake intercultural operations in early sown wheat, raya, taramira, lentil and chickpea.
 - 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 and mustard crops may be undertaken.

- Undertake harvesting of matured crops of toria.
- 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.
- Undertake transplanting of tomato.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
- Aphid in potato. Keep watch on aphid population as soon as it reaches 20 aphids per 100 leaves build up, the haulms should be cut down. Keep the soil wet at tuberization to minimize the scab infection.
- **Animal Husbandry:** Watch the animals in the early and late hours of the day especially at the time of milking. Provide clean, dry and good bedding especially for young calves to protect from cold weather. Keep the animals in dry place and change the bedding material. Provide clean, dry and good bedding especially for young calves and newly born should be given care in cold weather, keep them warm. Keep the animals under roof at night time and in the sun during day. The protein in the concentrate can be reduced 2-3 percent. Deworming should be done in the calves especially against Ascariasis/Malap

Haryana

- **Realised Rainfall:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Dry weather is likely over the State.
- **Major rabi Crops:** Wheat, raya and mustard
- **Advisory:**
- 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.
- 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.
- Apply the irrigation in timely sown raya/mustard crop.
- Complete the sowing of wheat crop with seed treatment by Bavistin or Benvalerate @ 2 g/kg seed of certified varieties WH-711, WH-283, WH 542, PBW-343, PBW 550, DWR 17, UP 2338 and HD 2687 within this month.
- **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 streptocyclin 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 no rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Rabi Crops: Wheat**
- **Advisory:**
 - Average daily temperature is likely to be below 20°C for the next five days, which is optimum for sowing of wheat. Recommended cultivars: - CPAN-3004, Raj-3077, PBW-343, DBW-17, DBW-550, HD 2851, HD 2687, HD 2733.
 - Field preparation for transplantation of onion should be started. Application of fully decomposed FYM should be done 15 days before transplantation.
 - Present weather conditions are suitable for sowing of spinach and coriander. Recommended cultivar for coriander: - Pant Haritama and Azad Dhanian-1. Before sowing of coriander, the seed should be separated into two cotyledons.
 - Transplanting of mature seedlings of tomato, cauliflower, cabbage, knolkhol and broccoli crop may be done in the raised bed.
 - Sowing of Nantes group of carrot (Pusa Yamdagini), European group of radish such as Pusa Mridula and Pusa Himani, Crimson Globe cultivar of beetroot and snowball cultivars group of turnip can be done this weather conditions. Proper spacing should be maintained. Before sowing seed should be treated.
 - Interculture operations in vegetables are advised keep the fields weed free.
- **Plant Protection:**
 - Due to high relative humidity, infection of early blight may occur in potato and tomato. Constant monitoring is advised. Two to three spraying of Mencozeb @ 1 gm per litre of water at 8-10 days interval is advised when disease is detected.

Uttar Pradesh

- **Realised Rainfall:** The State received no rainfall during last week.
- **Rainfall Forecast:** 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).
- **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 mild incidences of
- mal 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:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Rain is likely to occur at isolated places over the State for the next 48 hours and dry weather thereafter.
- **Major rabi crops:** Wheat, barley, brown sarson
- **Advisory:**
 - Farmers are advised to complete the sowing of 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.
 - Farmers can go for sowing of late sown wheat varieties (Raj 3077, HD 2285 & Raj 3765) under irrigated as well as rainfed areas. But before sowing seed should be treated with vitavax or bavistin or agrozim @ 2g/kg of seed against seed borne disease.
 - Drill 110, 42, 20 & 85 kg /ha of DAP, MOP, ZnSO₄ & urea, respectively as basal dose under irrigated condition.
 - 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 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.
 - 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.
 - 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.
- **Major Seasonal Crop with stage:** Vegetables (vegetative/flowering/fruitletting).
- **Crop Condition:** Good.
- **Advisory:**
 - Transplanting of onion and garlic should be completed positively by the end of this week as the minimum temperature is expected to fall below 2 °C, which adversely affects the establishment of seedlings. As the weather is expected to remain clear, hoeing and earthing up operation in potato, cabbage, cauliflower and main season knoll-khol should be taken up on priority. Harvesting of early sown knolkhol, spinach and methi should be done.
 - 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.
- 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.
- 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.
- As the weather is expected to remain largely clear, hoeing and earthing up operation in potato, cabbage, cauliflower and main season knoll-khol should be taken up on priority.
- **Plant Protection:** Weather conditions are favourable for
 - leaf curl/stigmata 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.
 - cut worm on gram, apply 2 litres of Chloropyrifos 20 EC mixed with 25 kg of dry sand and broadcast followed by hoeing.
 - powdery mildew on ber, spray dinocap (0.05%) or wetttable sulphur (0.25%) at fruit set stage.

Rajasthan

- **Realised Rainfall:** There was no rainfall during last week in the State.
- **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 sowing of late sown wheat.
 - 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.
 - Undertake sowing of gram, lentil, pea, Lucerne cumin, Isabgol & Ajwain and Taramira.
- **Animal Husbandry:**
 - To protect milch & infant animals from cold, cover the door of animal house and wrap jute beg around animal back. Keep litter dry everyday in Ajmer, Dausa, Tonk and Jaipur.
 - Due to fall in temperature there are chances of cold winds, protect animals by putting curtains in animal sheds. Vaccinate animals against FMD and BQ in consultation with local veterinarian. Arrange for curtains in poultry in Bharatpur region.
- **Plant Protection:** Weather conditions are favourable for
 - Aphid insects attack in Mustard, Barley, cauliflower & Radish. spray insecticide Dimethoate 30 EC or Methyl Demeton 25 EC @ 1 litre per hectare.

- Mango, Guava & pomegranate may be attacked by mealy bug 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.
- pod borer in Pea crop at pod formation stage, spray Endosulfan 35 EC or Melathion 50 EC @ 1.0 ml per litre water.
- Due to congenial weather there are chances of multiplication of bacterial rot. If few plants found rotted near collar region, uproot such plants and destroy by burying in soil. Spray a solution of Streptocycline (2 g in one spray tank i.e.15 lit water) + carbendazim (15 g in one spray tank) on lower side of the stem during evening or late morning hours.
- Painted bug and fly in mustard, spray Endosulphan 4% or Qunolphos1.5 % or Malethyon 5 % or Methyl Paraphyn 2 % per hectre.

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

Bihar

- **Realised Rainfall:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major rabi Crops:** sarson, rai, maize, wheat
- **Crop Condition:** Good
- **Advisory**
 - Continue preparation of the field and 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.
 - Farmers are advised to prepare the field for sowing of irrigated wheat varieties like; UP262, HD 2733, & HD 2824, PBW343, & 443,HP 1761,1731, RW 346 , RW 3413. 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.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth), sudan grass (vegetative)
- **Crop Condition:** Good
- **Advisory:**
 - Prepare the field for autumn planting sugarcane and no need of irrigation is required in early sowing of potato.
 - 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.
 - 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.
 - Undertake sowing of fodder crops like- berseem, lucerne and oat in the prepared field.
- **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:** There was no rainfall during last week in the State.

- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major *rabi* Crops:** rai, toria, gram, peas, potato, mustard
- **Crop Condition:** Good
- **Advisory:**
 - Farmers are advised to continue 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.
 - Undertake weeding, intercultural operations and top dressing.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative/grand growth)
- **Crop Condition:** Good
- **Advisory:**
 - 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:** There was no rainfall during last week in the State.
- **Rainfall Forecast:** Dry weather is likely over the State.
- **Major *rabi* Crops:** wheat, pulses, mustard, sunflower, groundnut
- **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.
 - Complete sowing of *rabi* pulses like lentil, field pea and chickpea @ 20 kg/acre. Now the current temperature is optimum for sowing of Bengal gram with improved varieties like Gourav, Annegiri, Radhey.
 - 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. Suitable varieties are Smruti, JL-24, TMV-11, AK12-24
 - Go for *piara* cropping of green gram, black gram, lentil and mustard as the weather is optimum.
 - Land preparation for toria should be started immediately in upland and medium land after harvest of *Kharif* paddy.
- **Major Seasonal Crop with stage:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative).
- **Crop Condition:** Good
- **Advisory:**

- Cole crop seedlings are at 3-week stage in the nursery. Go for transplanting in the main field.
- Undertake weeding, intercultural operations and application of fertilizers.
- **Animal Husbandry:** calf and kids are susceptible to respiratory infection mostly pneumonia. Provide warm and comfortable housing to animals. Now-a-days, poultry birds are prone to respiratory infection and CRD (Chronic Respiratory Diseases). Provide comfortable warm housing and good ventilation. In case of disease outbreak, therapeutic measures are to be taken up. Vaccination for FMD (Foot and Mouth Disease) of animals is to be taken up. In case of disease outbreak, strict isolation of affected animals should be done.

West Bengal

- **Realised Rainfall:** There was no rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely 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.
 - Harvesting of Kodo millet should be started.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), vegetable crops (transplanting)
- **Crop Condition: Good**
- **Advisory:**
 - Prepare upland, light loam and well drained field for early potato (90 days). Select among varieties like Kufri Alankar and Kufri Chandramukhi. Suitable late varieties after harvesting the kharif rice are Kufri Jyoti and Phokraaj.
 - Where irrigation water is available, start land preparation for boro paddy. The recommended varieties are IET – 1444, IET – 4786 (Satabdi), IET – 4094, Lalat, MTU – 1010, JGI -1798 etc.
 - After harvesting of the kharif crop, sowing of irrigated late variety such as DBW-14, HP-1744 (Rajeswari), NW-1014 & HW-2045 etc. can be done.
 - After the harvesting of kharif rice farmer can prepare the field for mustard cultivation. While land preparation apply 5-6 q cowdung per bigha with 20 kg urea, 50 kg SSP and 25 kg MoP.
 - Start harvesting of ginger. During harvesting, removal of roots, mud from rhizomes, heap and stored in cool and shade place for their multiplication.
 - Start harvesting orange; after harvesting of orange pruning should be done. After removal of dry shoots and other unwanted branches manuring and irrigation should be applied for their continuous growth.
- **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 no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely over the State.
- **Major Seasonal Crop with stage: Rice:** harvesting **Vegetables:** flowering/ fruiting/ harvesting; **Large Cardamom:** Capsule maturity/harvesting;
- **Crop Condition: Good**
 - **Advisory:** Farmers are advised to continue transplanting of 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:** There was no significant rainfall in the State during last week.
- **Rainfall Forecast:** Isolated rainfall during next two days and at a few places is likely in the State.
- **Major rabi crops:** Wheat, Potato, Pea and vegetables, mustard
 - Undertake land preparation and seed sowing of wheat in wheat areas. Undertake weeding and apply light irrigation in early sown wheat.
 - Undertake weeding and thinning in early sown rape seed and mustard.
 - Plant quality tubers of late potato variety like Kufri Megha. Depending up on weather, irrigate the crop and spray Indofil M-45 @ 0.25 % (2.5 g/L of water) against late blight.
 - 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 are advised to prepare nursery bed for sowing of recommended boro paddy varieties like Joymati, Bishnu prasasad, Swarnabh, Dinanath etc. in nursery beds from mid November onwards and continue upto mid December
- **Major Seasonal Crop with stage:** Vegetables (vegetative / flowering / fruiting / harvesting), and sugarcane (vegetative).
- **Crop Condition:** Good
- **Advisory:**
 - Seeds of cabbage, cauliflower, knoll khol, tomato, brinjal etc., can be sown in nursery beds.
 - Continue land preparation for sowing of onion and garlic under well drained, sandy loam condition.
 - Farmers are advised to start planting of potato, tomato, cabbage, knol khol etc.
- **Plant protection:** Weather conditions are favourable for mild incidences of –
 - blight in potato, spray Mancozeb 75% a.i.(2.5g/l) on a non rainy day.
 - saw fly in mustard. For controlling it, spray Rogor @2ml/l on a non rainy day.
 - sigatoka leaf spot in banana, spray calixin (1 ml/l) along with sticker.
 - 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) on a non rainy day.

Arunachal Pradesh

- **Realised Rainfall:** Many districts of the state received no rainfall during last week.
- **Rainfall Forecast:** Isolated rainfall is likely during next two days and at a few places thereafter in the State.
- **Major rabi Crops:** Pea, maize, potato
- **Crop Stage:** Pea, maize, potato
- **Crop Condition:** Good.
- **Advisory:**
 - Thinning be done wherever necessary followed by weeding.
- **Major Seasonal Crop:** Vegetables
 - Matured fruits of orange may be harvested for sale and avoid over maturity.
 - Transplanted vegetables may be provided with proper irrigation and weeding be done followed by fertilizer application.
 - Sowing of pea may be done followed by thinning wherever necessary.
- **Plant Protection:** Prophylactic measure for protection of seed ginger rhizome from fungal disease may be taken.

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

Andhra Pradesh

- **Realised Rainfall:** The State received no rainfall during last week.

- **Rainfall Forecast:** Isolated rain/Dry weather is likely over the State.
- **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.
 - 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 rice are 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 carbosulphan @ 30g or imidacloprid @ 5ml and mancozeb @ 3g or carbendazim @ 2.0 per kg of seed.
 - Chickpea can be sown at the earliest. 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
 - Incidence of Aphids and whitefly in Cotton. To control them, spray Monocrotophos @ 1.5 ml or Methyl Demeton @ 2 ml or Acetamaprid @ 0.2 g or Acephate @ 1.5 g per litre of water.
 - Incidence of leaf spots in Cotton. To control, spray Mancozeb @ 2.5 g or Copper-Oxy-Chloride @ 3g or Cuman-L @ 4 ml per litre of water 4-5 times at 15 days interval.
 - Severe incidence of white fly is noticed in water logged sugar cane fields of Krishna district. To control, spray Endosulphon or Malathion @ 2 ml per litre of water.
 - Prevailing weather conditions are congenial for the incidence of scale insect, mealy bug and *Pyrilla* in Sugarcane. To control, de trash the basal leaves and spray Dimethoate @ 1.7 ml or Malathion @ 3 ml per litre of water. To control *Pyrilla*, spray Endosulfan or Malathion @ 2 ml per litre of water.
 - Incidence of thrips is noticed in onion. To control, spray Imidacloprid @ 0.4 ml or Fipronil @ 2 ml per litre of water.
 - Incidence of shoot and fruit borer is noticed in brinjal and bhendi. To control, install pheromone traps @ 4 per acre, clip the infested shoots and destroy, spray Endosulfan or Profenophos @ 2 ml per litre of water.
 - Incidence of thrips and mites is noticed in chillies. To control **Thrips**, spray Acephate @ 1.5 g or Fipronil @ 2 ml per litre of water **and to control Mites**, spray Phosolone @ 2 ml per litre of water.
 - Leaf webber in mango. To control spray Monocrotophos @ 1.6 ml or Quinolophos @ 2 ml per litre of water.
 - Canker is noticed in sweet orange and acid lime in Nalgonda district. To control, spray Copper. Oxy. Chloride @ 30 g + Plantamycin @ 1 g in 10 litres of water 2 to 3 times at 20 days interval.

- **Realised Rainfall:** Most districts of the state received no rainfall except Kodagu and Dakshin Kannada districts, which received normal rainfall and Udupi which received scanty rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at isolated places at coastal Karnataka and South Interior Karnataka and mainly dry weather over North Interior Karnataka.
- **Major rabi Crops:** Wheat (6 - 8 leaf emergence), Bengal gram (Branching), Rabi Sorghum (Knee-high), Pigeonpea (Pod filling), Sunflower(Head filling)
- **Advisory:**
 - As there was no significant rainfall in South Interior Karnataka and coastal Karnataka during last week, farmers are advised to postpone irrigation to the crops.
 - Undertake 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. Carbandizem 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.
 - Farmers in Hiriyur district are advised to undertake sowing of Rabi crops like Bengal gram, sunflower rainfed and Maize and Onion under irrigated condition.
 - Provide one irrigation as the wheat crop is in crown root initiation (CRI) stage which is critical stage for irrigation.
 - Carry out the nipping operation in the Bengal gram as it helps in spreading of the crop and produce more of side branches. Take up the spraying of 2 % urea. This will helps for better establishment of vegetative growth.
- **Major Seasonal Crop:** Sugarcane, vegetables, ginger (Nursery), onion (5 - 6 leaf emergence)
- **Advisory:**
- **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
 - leaf eating caterpillar's in Bengalgram. To control the pest, spray the crop with 4 g carbaryl or 1 ml Methyl parathion or 2 ml Chlorpyrifos dissolved in one liter of water.
 - powdery mildew disease in sunflower, spray the crop with 1 ml Hexaconazole or 1 g Carbendazeme dissolved in one liter of water.

Kerala

- **Realised Rainfall:** The State received no rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely to occur at a few/isolated places over the State.
- **Major Kharif Crops:** Rice
- **Crop Stage:** seedling/early vegetative (*mundakan* rice).
- **Crop Condition:** Good.
- **Advisory:**
 - Farmers are advised to undertake intercultural operations in *mundakan* rice on a non rainy day to keep the fields weed free.

- 2nd doze of lime @ 250kg/ha may be applied for direct sown/transplanted crop one month after planting.
- **Major Seasonal Crop:** Vegetables and plantation crops (coconut, arecanut, pepper and cashew). Time for planting of coffee and arecanut
 - Farmers are advised to apply irrigation as there was no rainfall during last week
 - Planting of arecanut seedling can be continued. Srimangla, sumangla and Mohitnagar are best suited and high yielding varieties.
 - Fresh planting of banana can be continued during this period in Ernakulam.
- **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. 2.5 Kg 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.
 - tea mosquito bug in cashew plantations, spray carbaryl 0.1% or quinolphos 0.05%. Apply 640 g of urea, 800 g of rock phosphate, 500 g of MOP to plantation with 5 years of age.
 - sucking pest in cowpea and bittergourd, spray the plants with neem oil emulsion. For this , dissolve 60g of bar soap on half litre of water and mix the emulsion with 1 lit of neem oil by vigorous stirring. This solution should be diluted 40 times for spraying purpose.
 - pseudo stem weevil in banana, apply Chlorpyrifos @2ml/l in leaf axils.
 - Spraying of chemicals may be undertaken on a non rainy day.

Tamil Nadu

- **Realised Rainfall:** Most of the districts received scanty and deficient rainfall except Nagapattinam and Tiruvarur which received normal rainfall and Pondichery which received excess rainfall during last week.
- **Rainfall Forecast:** Rainfall is likely at a few places during next two days and isolated places thereafter over the State.
- **Major Kharif Crops:** Groundnut, pulses and rice
- **Crop Stage:** pod development (pulses), picking (cotton)
- **Crop Condition:** Good
- **Advisory:**
 - As most of the districts received scanty and deficient rainfall during last week, apply need based irrigation to the crop. Farmers in Cuddalore, Nagapattinam and Tiruvarur districts are advised not to apply irrigation to the 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.
 - Undertake intercultural operations and application of fertilizers in *thaladi* rice and vegetables and sugarcane on a non rainy day.
 - 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) on a non rainy day.
- Farmers are advised to take up land preparation activities like ploughing, puddling, green manure incorporation and leveling for paddy main field.
- In vegetable belt area, farmers are advised to spray NAA (Growth hormone) on a non rainy day for controlling of flower dropping and increase fruit setting.
- 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.
- Hand weeding is to be done on 20 & 45 DAT in Thaladi crop.
- **Plant Protection:**
 - In 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.
 - stem borer, leaf folder and Green leaf hopper in paddy field, spray application of profenophos 50EC 1000ml/ha for controlling of above pests.
 - incidence of sphingid in the pulses crops, spray endosulfan at 1 litre / ha.
 - Spray the pesticides on a non rainy day.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Maharashtra

- **Realised Rainfall:** There was no significant rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely over the State
- **Major Kharif Crops:** Rice(mid late & late variety), cotton, vegetables, tur
- **Major rabi Crops:** jowar, safflower, sunflower, linseed, gram, wheat, mustard vegetables.
- **Crop Stage:** *Kharif* paddy (mid late & late variety at grain maturity / harvesting), red gram(flowering / pod formation), *Kharif* & irrigated cotton(boll maturity / picking), and *rabi* jowar, safflower (vegetative growth stage), sunflower, linseed (early vegetative growth), gram (branching), wheat (sowing/early vegetative), mustard (sowing/germination)
- **Crop Condition:** Satisfactory.
- **Advisory:** Conserve moisture in the crop field at maturity stage.
 - Complete sowing of *rabi* gram, mustard and wheat.
 - Thinning and weeding may be done early sown crop.
 - Apply protective irrigation to standing crops.
- **Major Seasonal Crop:** Fruit crops, Sugarcane and vegetables.
 - Undertake spraying, fertilizer application in the standing crops.
 - Complete harvesting of already matured mid late and late variety of rice and continue picking of fully opened cotton bolls.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - blast and powdery mildew disease in 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.
 - sugary disease due attack of aphids and thrips in *rabi* jowar. For control of aphids and thrips, spray Dimethoate 3 EC or Demeton 25 EC or Endosulfan 35EC @ 1.5 ml per lit of water.
 - pod borer on red gram; for control spray 5% Neemark. If infestation is more, spray Endosulfan 35 %WSC @ 20 ml or Quinolphos 25 % WSC @ 16 ml or Fenthioate 50% WS @ 14 ml in 10 liters of water.
 - jassids and white powdery mildew on mango, for control spray Equinolcus @2 ml or Carbaryl @ 2 gm or Endosulfan @ 2 ml with Sulphur @2 gm per lit of water.

Gujarat

- **Realised Rainfall:** Mainly dry weather was prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely over Gujarat region and Saurashtra and Kutch.
- **Major *rabi* Crops:** wheat, potato, mustard
- **Crop Stage:** mustard (early vegetative), gram (flowering)
- **Crop Condition:** Crop condition is satisfactory
- **Advisory:**
 - Apply irrigation during crown root initiation stage (20 days after sowing) and tillering stage (35-40 days after sowing) of early sown wheat crop. Farmers are advised to continue 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.
 - 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.
 - Farmers are advised to apply irrigation to gram crop as it is in flowering stage.
 - 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.
 - 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.
- **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-demeton 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 during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.

- **Major rabi Crops:** wheat, pulses, gram
- **Crop Condition:** Satisfactory.
- **Advisory:**
 - Undertake sowing of potato, onion , rabi crops and vegetable crops.
 - Undertake sowing of wheat, chickpea, lentil, linseed and field pea.
 - Undertake sowing of berseem, dhania, pyaj, and lahsun.
 - Undertake sowing of desi gram with varieties JG 130, JG 11, JG 315, JG 16.
 - This is favorable time for sowing of wheat. Apply split dose of nitrogen fertilizer in wheat. Prefer wilt resistant late varieties of Gram if farmers wants to sow gram crop. for sowing. Seeds must be Treated by fungicide & biofertilizer (Rhizobium) before sowing.
 - Farmers should be shown 3-4 irrigation required HI - 1418, HI -1479 and HI – 1544 and 5 – 6 irrigation required GW – 322, GW -273 improved varieties of wheat.
 - Seed treatment of rabi crops should be done with Carbendazim 2.0 gm/kg or Mencozeb or Thirum 3.0 gm/kg of seed.
- **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 in the field.
 - Undertake pit preparation for planting of new orchard crops.
- **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.
 - insect attack in Pigeon pea crop ((at flowering to Podding stage), spray Indosulphan or Quinalphas @ 2.0 ml. per liter for controlling it. Pheromone or light traps may be used.
 - blight disease in tomato farmers, spray Mencozeb 75 WP @ 2 gm/l of water.
 - Zalsa disease in potato, spray Menkozeb 2kg in 600 litre of water.
 - Caterpillar in gram and arhar, spray Endosulphan or Prophenophos 1.5 litre in 500 to 600 litre of water.
- **Animal Husbandry:** Animals are to be checked by veterinarians Cattle should be vaccinated to save them from infections/diseases like Anthrax, Galgotu, Black Quarter and FMD etc. The animals should be dewormed through deworming tablets. Take care the pregnant animals and feed them balance diet. Provide the animal's clean water and balance and nutrients rich food.

Chattisgarh

- **Realised Rainfall:** Mainly dry weather was prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Kharif Crops:** Rice,
- **Crop Stage:** grain development (rice),
- **Crop Condition:** Good
- **Advisory:** Complete 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.
- **Major rabi Crops: Rice,**
 - **Advisory:** The temperatures become favorable for sowing of wheat, hence it is advised to undertake sowing of wheat at the earliest. GW-273, Kanchan, GW-173, Amar, Lok-1, Ratan and HD-2329 are suitable varieties for Chhattisgarh Plains zone. However, under limited irrigation sowing of Sujata variety is recommended. For sowing of wheat seed rate should be 125 kg/ha for all the varieties.
 - Proper seed treatment methods should be adopted before sowing of gram. Seed treatment with fungicides like Carbedizim @ 2.5 g/kg of seed recommended. After this seed should also be treated with Rhizobium culture @ 5 g/kg of seed. Vaibhav, JG-74, TG-315, ICC-2 (Kabuli) etc. are suitable varieties for the Chhattisgarh plains agro-climatic zone.
- **Plant Protection:**
 - Pigeon pea crop is at flowering/pod formation stage. At this stage keep watch over the crop for pod borer complex due to partly cloudy weather during past week. If necessary, spray Endosulphan or Metasystox @ 1.5 ml per liter of water. Spraying of HNPV @ 250 LE/ha is also recommended, but while using HNPV, care should be taken that spraying should be done during morning or evening hours to avoid loss of efficacy during bright sunshine hours.
 - Weather conditions are favorable for incidence of
 - Diamond Back Moth in Cole crops. Hence it is advised to spray Endosulphan or Trizophos @ 1.5 ml/liter of water is necessary.
 - thrips *and alternaria* blight on kulthi crop, spray of copper oxychloride and monocrotophos.
 - black colored saw fly caterpillar on mustard, spray endosulfan @ 2 ml per litre of water. If aphids of mustard are being observed, then monocrotopho should be sprayed @ 1 ml per litre of water.
 - Powdery mildew on pea, spray Kerathane (0.15%) or Sulphex (0.2%).