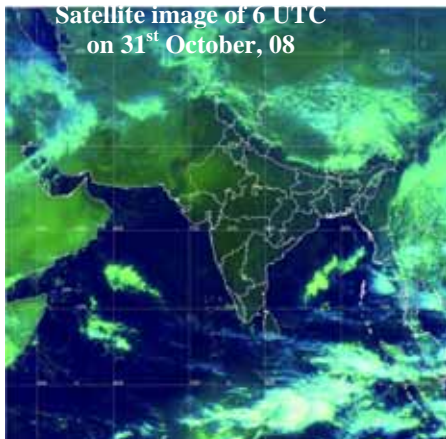




National Agromet Advisory Bulletin

Thursday, 30th October, 2008
(For the period 30th October to 3rd November, 2008)

Satellite image of 6 UTC
on 31st October, 08



Forecast for South India

- Rain/thundershowers are likely at many places over Andaman & Nicobar Islands.
- Isolated rain/thundershowers are likely over Tamilnadu & Puducherry, Kerala and Lakshadweep.
- Mainly dry weather is likely over the rest region.

Status of Northeast monsoon

- Widespread rainfall occurred over Andaman & Nicobar Islands throughout the week.
- Widespread / fairly widespread rain / thundershower occurred over Kerala and Lakshadweep during first half of the week and decreased thereafter. Scattered to fairly widespread rainfall also occurred over Tamil Nadu and Puducherry, coastal and south interior Karnataka during first half of the week and decreased thereafter.
- Scattered to fairly widespread rainfall also occurred over coastal Andhra Pradesh on 24th and 25th October.

Advisories for Kerala

- Farmers in all the districts of Kerala are advised to undertake transplanting of *mundakan* rice and planting of *nendran* banana by utilizing the northeast monsoon rainfall.
- As there was good amount of rainfall during last week in the state, farmers are advised to postpone irrigation to plantation crops.

Advisories for Tamil Nadu

- Water logging condition occurred due to heavy rains during last two to three weeks in Tamil Nadu is improving gradually. Farmers are advised to undertake sowing of crops like green gram, black gram, groundnut, cotton, *rabi* vegetables and transplanting of chilli after receding of water.
- Farmers in the State are also advised to postpone irrigation in standing *kharif* crops like groundnut, sugarcane and pulse crops.


Issued by

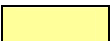
National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.


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


Comparison of weekly rainfall distribution (in % dep.) in different Met. Sub-divisions during past 5 weeks					
Sub-division	Cumulative Rainfall (% Dep.) for the period				
	1 st October	8 th October	15 th October	22 nd October	29 th October
A & N Islands	-58	-95	-72	-68	266
Arunachal Pradesh	-59	-39	-75	-99	233
Assam and Meghalaya	-20	-3	-79	-99	215
NNMT	13	45	-66	-98	371
SH West Bengal & Sikkim	-55	3	-89	-100	123
Gangetic West Bengal	16	-40	-92	-100	141
Orissa	-67	-56	-89	-90	-80
Jharkhand	-52	-58	-99	-100	-94
Bihar	38	-16	-63	-100	-100
East Uttar Pradesh	-70	-52	-93	-96	-87
West Uttar Pradesh	-97	-82	-84	-99	-100
Uttarakhand	-94	-5	-72	-63	-100
Haryana, Chandigarh and Delhi	-99	-90	-94	-71	-100
Punjab	-100	-86	-64	316	-100
Himachal Pradesh	-99	-53	-75	101	-99
J & K	-95	46	-31	168	-99
West Rajasthan	-100	-97	-100	-99	-100
East Rajasthan	-94	-93	-97	-56	-100
West M. P.	-90	15	-84	-100	-100
East M. P.	-98	-29	-90	-100	-100
Gujarat region	-100	19	-99	-95	-100
Saurashtra & Kutch	-99	1	-100	-98	-100
Konkan and Goa	-98	-15	-52	-97	-92
Madhya Maharashtra	-97	43	0	-94	-100
Marathwada	-99	-18	-78	-100	-100
Vidarbha	-96	-28	-79	-100	-100
Chhattisgarh	-86	-69	-90	-100	-100
Coastal A. P.	-80	-78	-83	-24	-40
Telangana	-90	-82	-74	-40	-78
Rayalseema	-63	7	-69	67	15
TamilNadu & Pondicherry	-72	-48	49	148	-26
Coastal Karnataka	-98	-74	-57	-22	86
N. I. Karnataka	-75	-9	6	-49	-59
S. I. Karnataka	-93	-6	-39	18	32
Kerala	-99	-99	-9	62	154
Lakshadweep	-94	-98	10	153	264


The sub divisions like Orissa, Jharkhand, Uttar Pradesh, Haryana, Chandigarh and Delhi, Rajasthan, East Madhya Pradesh, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh and Telangana received scanty / deficient rain in all the 5 weeks; Andaman Nicobar Island, Arunachal Pradesh, Uttarakhand, Punjab, Himachal Pradesh, West Madhya Pradesh, Gujarat, Saurashtra & Kutch, Konkan & Goa, Marathwada and Coastal Karnataka received scanty / deficient rain in 4 out of last 5 weeks; Assam and Meghalaya, West Bengal & Sikkim, Bihar, Jammu & Kashmir, Madhya Maharashtra, Tamil Nadu & Pondicherry and North Interior Karnataka received scanty / deficient rain in 3 out of last 5 weeks. Other subdivisions received normal or excess rain for at least 3 weeks out of last 5 weeks.

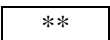
 (20% or more) excess rainfall

 (-60 to -99 %) scanty rainfall

 (-19 to +19%) normal rainfall

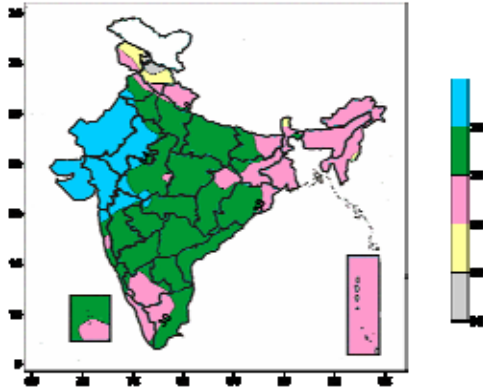
 (-100%) no rainfall

 (-20 to -59%)deficient rainfall

 ** Data not available

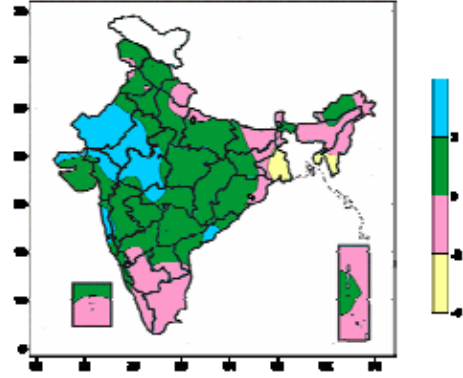
Contour maps for the week ending 29.10.08

Actual Mean Maximum Temperature (°C) in India for the week ending 29.10.08



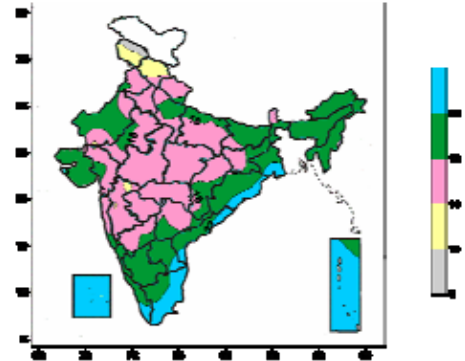
Actual Mean Maximum Temperature ranged between 34 to 38°C in some parts of Punjab, Haryana, West Madhya Pradesh, North Maharashtra, in most parts of Rajasthan and Gujarat, 26 to 30°C in some parts of Jammu & Kashmir, Punjab, Himachal Pradesh, West Uttar Pradesh, West Madhya Pradesh, Chattisgarh, Bihar, Jharkhand, Orissa, Konkan & Goa, Tamil Nadu and Lakshdweep, most parts of Uttarakhand, West Bengal, Northeast India, South Interior Karnataka, Kerala and Andaman Nicobar Island, 22 to 26°C in some parts of Jammu & Kashmir, Himachal Pradesh, Sikkim and Manipur and 30 to 34°C in remaining parts of the country.

Maximum Temperature (°C) Anomaly in India for the week ending 29.10.08



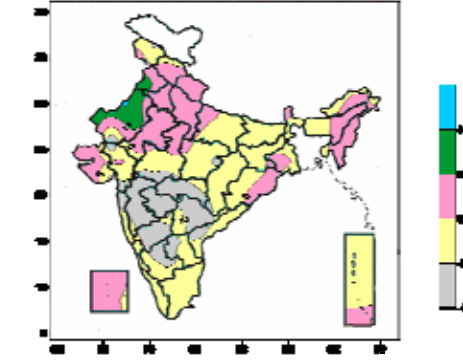
Maximum Temperature anomaly ranged between 2 to 4°C over some parts of Gujarat, Konkan and Goa, Vidarbha and Coastal Andhra Pradesh, most parts of Rajasthan and West Madhya Pradesh, -2 to 0°C in some parts of Jammu & Kashmir, Punjab, Uttarakhand, Uttar Pradesh, Bihar, Jharkhand, West Bengal, Arunachal Pradesh, Orissa, North Interior Karnataka, Rayalaseema and Lakshdweep, most parts of Assam, Nagaland, Manipur, Sikkim, South Interior Karnataka, Kerala, Tamil Nadu and Andaman Nicobar Island, -4 to -2°C in most parts of Mizoram, Tripura and Gangetic West Bengal and 0 to 2°C in remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 29.10.08



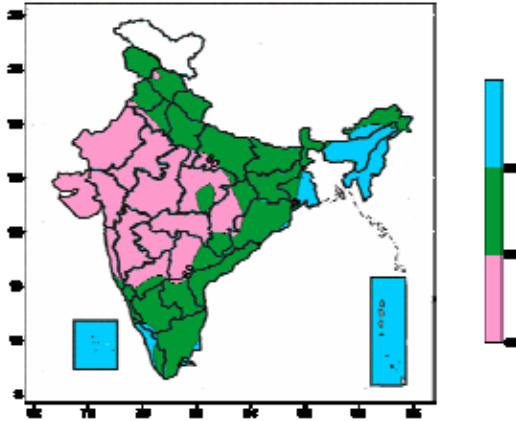
Actual Mean Minimum Temperature ranged between 22 to 26°C in some parts of Gangetic West Bengal, Coastal Orissa, Coastal Andhra Pradesh, Rayalaseema and Kerala, most parts of Tamil Nadu, Lakshdweep and Andaman Nicobar Islands, 18 to 22°C over some parts of Punjab, East Rajasthan, Gujarat region Uttarakhand, Uttar Pradesh, Jharkhand, Chattisgarh, Konkan and Goa, North Interior Karnataka, Telangana, Kerala, Tamil Nadu and Andaman Nicobar Islands, most parts of West Rajasthan, Saurashtra & Kutch, Northeast India, Bihar, Orissa, West Bengal, Coastal Andhra Pradesh, Rayalaseema, Coastal and South Interior Karnataka, 10 to 14°C over some parts of Rajasthan, Gujarat and Madhya Maharashtra, most parts of Jammu & Kashmir and Himachal Pradesh, 6 to 10°C in Jammu & Kashmir and 14 to 18°C in remaining parts of the country.

Minimum Temperature (°C) Anomaly in India for the week ending 29.10.08



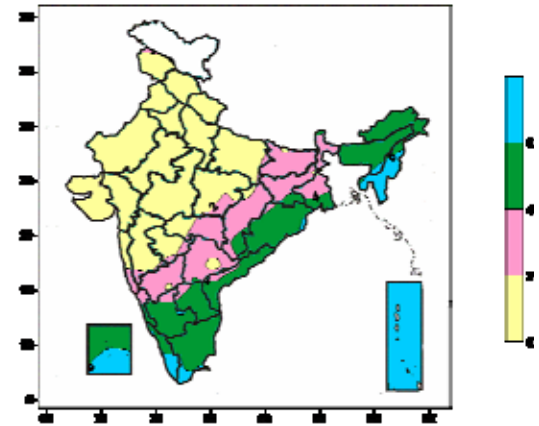
Minimum Temperature anomaly ranged between 2 to 6°C over some parts of West Rajasthan, 0 to 2°C over some parts of Jammu and Kashmir, West Rajasthan, Gujarat, East Uttar Pradesh, Gangetic West Bengal, Jharkhand, Orissa, Madhya Pradesh, Andaman and Nicobar Islands, Northeast India, most parts of Himachal Pradesh, Haryana, Delhi, Uttarakhand, West Uttar Pradesh, East Rajasthan, Sikkim and Lakshdweep, -4 to -2°C over some parts of Jammu & Kashmir, West Rajasthan, Gujarat, Madhya Pradesh, Andhra Pradesh, most parts of Maharashtra, Interior Karnataka and -2 to 0°C over remaining parts of the country

Relative Humidity (%) over India for the week ending 28.04.09



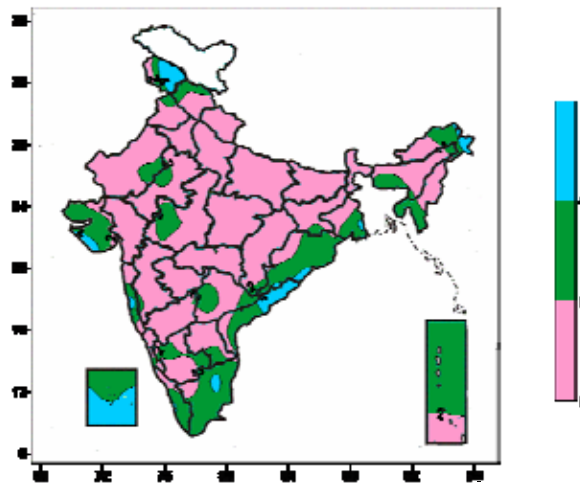
Relative humidity ranged from 80 to 100% over some parts of Gangetic West Bengal, South Interior Karnataka, Tamil Nadu and Kerala and most parts of Northeast India, Lakshdweep, Andaman & Nicobar Islands, 40 to 60% over some parts of Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Telangana, Rayalaseema, North Interior Karnataka, most parts of West and Central India and 60 to 80% in remaining parts of the country.

Cloud amount (okta) over India for the week ending 28.04.09



Cloud amount ranged from 6 to 8 okta in some parts of Northeast India, Kerala, Tamil Nadu, Lakshdweep, most parts of Andaman and Nicobar Islands, 4 to 6 okta over some parts of Gangetic West Bengal, Jharkhand, Chattisgarh, Telangana, Coastal Karnataka, Kerala, Lakshdweep, most parts over Assam and Meghalaya, Arunachal Pradesh, Coastal Andhra Pradesh, Rayalaseema, Orissa, South Interior Karnataka, Tamil Nadu, 2 to 4 okta in some parts of Maharashtra, Rayalaseema, Coastal Andhra Pradesh, Coastal Karnataka, South Interior Karnataka, most parts of Bihar, Jharkhand, West Bengal, Chhattisgarh, Telangana, North Interior Karnataka and 0 to 2 okta in remaining parts of the country.

Wind speed (knots) over India for the week ending 28.04.09



Wind speed ranged between 4 to 6 knots over some parts of Jammu & Kashmir, Saurashtra & Kutch, Arunachal Pradesh, Orissa, Coastal Andhra Pradesh, Tamil Nadu, Lakshdweep, 2 to 4 knots over some parts of Jammu & Kashmir, Punjab, Himachal Pradesh, Rajasthan, Jharkhand, West Madhya Pradesh, Chhattisgarh, Gangetic West Bengal, North East India, Konkan & Goa, Telangana, Rayalaseema, Coastal Karnataka, Lakshdweep, most parts of Saurashtra & Kutch, Kerala, Tamil Nadu, Orissa, Coastal Andhra Pradesh and Andaman & Nicobar Island, and 0 to 2 knots over remaining parts of the country.







Districts experiencing stress condition (% Departure of rainfall) in South India

*** Most stress					
State/Districts	01/10/08	08/10/08	15/10/08	22/10/08	29/10/08
Andhra Pradesh					
Coastal Andhra Pradesh					
Guntur	-74	-88	-100	-54	-61
Krishna	-93	-87	-99	-28	-52
Sirkakulam	-85	-96	-89	-100	-68
Visakhapatnam	-95	-66	-100	-100	-38
Vizianagram	-86	-82	-100	-90	-96
West Godavari	-99	-58	-89	-82	-74
Telangana					
Adilabad	-99	-62	-93	-95	-100
Karimnagar	-99	-81	-52	-100	-99
Mehabubnagar	-78	-43	-92	-73	-79
Medak	-100	-85	-45	-40	-100
Nalgonda	-68	-80	-100	-57	-51
Nizamabad	-100	-83	-38	-100	-100

** More stress					
State/Districts	01/10/08	08/10/08	15/10/08	22/10/08	29/10/08
Karnataka					
North Interior Karnataka					
Bagalkote	-71	-3	-31	-68	-72
Gadag	-90	89	-49	-90	-45
Haveri	-93	138	-69	-71	-89
South Interior Karnataka					
Shimoga	-97	-8	-57	-38	-77
Andhra Pradesh					
Telangana					
Rangareddy	-95	-7	-38	-100	-100

* Stress					
State/Districts	01/10/08	08/10/08	15/10/08	22/10/08	29/10/08
Karnataka					
North Interior Karnataka					
Belgaum	-61	-37	19	-97	-61
Bidar	-84	-27	236	-32	-100
Bijapur	-72	-41	122	-84	-66
Dharwad	-39	-33	6	-98	-64
Andhra Pradesh					
Telangana					
Hyderabad	-100	-44	178	-87	-100

- No district in Tamil Nadu and Kerala experienced stress condition during earlier 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

*** Most stress (more than 3 weeks continuously deficient to no rain)

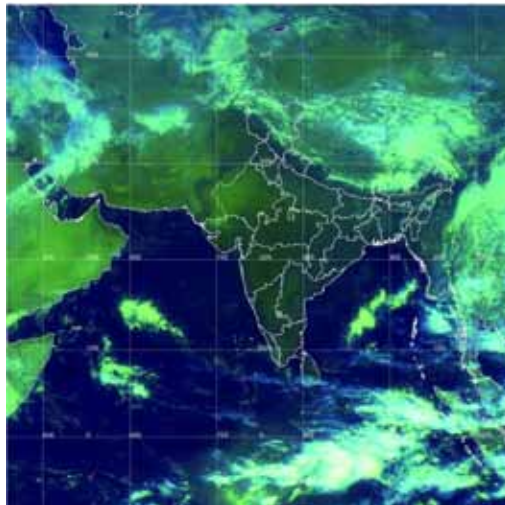
**More stress (3 weeks continuously deficient to no rain)

*Stress (2 weeks continuously deficient to no rain).

Chief Synoptic Feature (Based on 1430 hours IST observations of 30th October, 2008)

- The Western disturbance as an upper air system over north Pakistan and adjoining northwest Jammu & Kashmir is still moving away eastwards.
- Numerical weather prediction models suggest that subdued rainfall activity is likely to continue over south peninsula during next 4-5 days.
- The night temperatures are above normal by 2-4° over many parts of northwest India. With the eastward movement of the western disturbance, they are likely to fall gradually from 1st November onwards.

Satellite image of 6 UTC on 31st October 08



Zone-wise Forecast

NORTHWEST INDIA [J & K, H. P., UTTARAKHAND, PUNJAB, HARYANA, DELHI, WEST UP]
(Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Rain/snow is likely at isolated places over Jammu & Kashmir during next 24 hours and mainly dry weather thereafter.
- Mainly dry weather is likely over the rest region.

Quantitative District Weather Forecast for next five days:

- Light rain is likely to occur over Jammu & Kashmir and dry weather is likely to prevail over rest of the region.

EAST INDIA [EAST UP, JHARKHAND, BIHAR, ORISSA, WEST BENGAL & SIKKIM]
(Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Isolated rain/thundershowers are likely over Sub-Himalayan West Bengal & Sikkim.
- Mainly dry weather is likely over the rest region

Quantitative District Weather Forecast for next five days:

- Light rain is likely to occur over Sub Himalayan West Bengal & Sikkim and dry weather is likely to prevail in remaining parts of the region.

NORTHEAST INDIA [Arunachal Pradesh, NMM & T, Assam, Meghalaya] (Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Mainly dry weather is likely over the region.

Quantitative District Weather Forecast for next five days:

- Mainly dry weather is likely to occur over the region.

SOUTH INDIA [TN, AP, KERALA, KARNATAKA, LAKSHADWEEP, ANDAMAN & NICOBAR ISLANDS] (Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Rain/thundershowers are likely at many places over Andaman & Nicobar Islands.
- Isolated rain/thundershowers are likely over Tamilnadu & Puducherry, Kerala and Lakshadweep.
- Mainly dry weather is likely over the rest region.

Quantitative District Weather Forecast for next five days: Kerala, Tamil Nadu, Coastal Karnataka and Coastal Andhra Pradesh

- Rather moderate rainfall is likely to occur over Andaman Nicobar Island, light rainfall is likely to occur over Tamilnadu & Puducherry, Kerala and Lakshadweep and mainly dry weather is likely over the rest region.

WEST INDIA [GOA, MAHARASHTRA (OTHER THAN VIDARBHA), GUJARAT, RAJASTHAN] (Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Mainly dry weather is likely over the region.

Quantitative District Weather Forecast for next five days:

- Mainly dry weather is likely over the region.

CENTRAL INDIA [M.P., CHHATTISGARH, VIDARBHA] (Forecast valid upto 1430 hours IST of 2nd November, 2008)

- Mainly dry weather is likely over the region.

Quantitative District Weather Forecast for next five days:

- Mainly dry weather is likely to occur over the region.

Weather Outlook from 1430 IST of 2nd to 1430 IST of 4th November, 2008 (Based on numerical weather products):

- A fresh upper air cyclonic circulation is likely to form over east central Bay of Bengal and adjoining north Andaman Sea.

Zonewise Agromet Advisories

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

Himachal Pradesh

- **Major Standing crops:** Vegetables (vegetative / flowering / fruiting / harvesting), rice (grain maturity / harvesting), apple (fruit maturity / harvesting), tea (plucking), wheat, barley, gram and oil seeds (land preparation / sowing), new planting of evergreen fruit plants.
- As weather condition is favourable, undertake land preparation and sowing of wheat, barley, gram and oil seeds. Select varieties like HPW-89,147 VL-738 and HS-240 for wheat and HBL-316 and Dolma for barley for sowing.
- Under prevailing weather condition, undertake nursery sowing of pea, cauliflower, cabbage, knoll khol and broccoli. Select varieties from Snow ball K-1, Palam Uphar, Golden Acre for cabbage, White Viena for Knol khol, Palam Kanchan, Palam Vichittra and Palam Samridhi for broccoli and Pride of India for cauliflower and Mater ageta-6 for peas. Also undertake transplanting of seedlings if nurseries of cabbage, cauliflower and broccoli are 4-6 weeks old.
- Weather condition is also favourable to undertake sowing of carrot, raddish and turnip and also the leafy vegetables like lettuce, methi, palak, dhania etc. Select varieties like Jjapani white and Early Mino White for raddish and PTWG-1 for turnip for sowing.
- Under prevailing weather condition, for taking seed crop of onion, plant bulbs at 45 X 45 cm apart directly in the field. It is also time for sowing of peas (var. Agad, Lincoln and Priya) and garlic.
- It is optimum time for planting of evergreen plants like mango, litchi, guava, citrus, loquat and amla in Sub-mountain & Low hills Sub tropical zone.
- Whitewash the stems of the trees in orchards with 10 kg Chuna + 100 g of Copper sulphate + 25 liters of water to protect the plants from diseases and direct solar radiation.

Plant protection

- The weather conditions are favourable for damping off disease of the cauliflower seedlings. Hence, the farmers are advised to treat the nursery beds with formaline (one part formalin and 7 parts water). The treated beds should be covered with polythene sheets. This formalin treatment should be given 15 to 20 days before seed sowing. The seeds should be sown only when the soil becomes free from formalin vapours.
- The weather conditions are favourable for black rot of cauliflower. The seeds should be treated by soaking seeds in tap water for 30 minutes followed by hot water dip for 30 minutes and finally giving a same duration dip in streptomycin (1 g / 10 litres of water).
- Blister blight is appearing in the tea orchards and there is chance of enhanced infestation as the weather is conducive for its spread. For control spray Tilt (Propiconazole) @ 1 ml or cantaf @ 1 ml per litre of water and repeat the spray at 15 days interval.

Poultry

- Climate is congenial for attack of Diarrhea and coccidiosis, hence, consult the nearby veterinarian.
- For new lots of layers chicks follow recommended schedule of vaccination for IBD and Ranikhet disease because weather is conducive for the spread of these diseases.

Uttarakhand

- **Major Standing Crops: Sugarcane (vegetative), Maize, groundnut and vegetables** (flowering/grain formation/early maturity), rice (maturity in Nainital district), urd, soybean (maturity).
- As there was no rainfall in most of the districts of the State during last week and mainly dry weather is likely to prevail for the next three days, apply irrigation to the standing crops.
- Farmers are advised to undertake sowing of wheat in valleys (at 5000 ft height) of Nainital District. Select early varieties like VL-Gahuen 829, VL-Gahuen 616, HPW-251 or HS-277. Also undertake

planting of potato (Kufri Jyoti, Kufri Asokh and Kufri Anand), pea (Arkil, Pant Ageta, VL-7, Pant Sabjee Mater-3, Ajab Matar-3, VL Mater-3) and garlic (Jamuna Safed & Jamuna Safed-3 etc).

- Undertake sowing of mustard (PR-8988, Kranti and Krishna) in Udam Singh Nagar district utilizing the stored soil moisture and undertake transplanting of cabbage (Pacheti snowball). Continue planting of sugarcane. The early varieties are CoS-8436, CoS-96268, CoS-96258, etc., middle and late varieties are Co Pant- 84212, Co Pant- 90223, Co Pant- 93227, Co Pant- 97222 etc.
- Undertake sowing of mustard in Garwal Pauri district utilizing the stored soil moisture.

Punjab

- **Major Standing Crops:** Rice (maturity), Horticultural crops (vegetative), Sugarcane (vegetative), Early sown cotton (boll maturity stage), maize, groundnut (flowering), and sunflower (grain formation).
- As most of the districts received no significant rain during last week and mainly dry weather is likely to prevail for the next three days, farmers are advised to apply irrigation to the standing crops.
- Due to conducive weather, farmers are advised to start harvesting/picking of matured crops of rice and cotton.
- Undertake sowing of toria and berseem by utilizing residual soil moisture in Sub-mountain undulating zone. Recommended varieties for toria are PBT 37 and TL 159. Also undertake sowing of gram and lentil.
- Farmers are advised to continue planting of sugarcane and sowing of desi varieties of radish, peas, potato, palak and late season varieties of cauliflower and planting of fruit crops like sweet orange, lime mango and guava with irrigation facilities in Central and Western plain zones.

Haryana

- **Major Standing Crops:** Rice (maturity), Sugarcane (vegetative), Horticulture crops (vegetative), Sunflower (grain formation), Early sown cotton (boll maturity stage) and Bajra (grain formation).
- As most of the districts received no rain during last few weeks and mainly dry weather is likely to prevail for the next three days, farmers are advised to apply irrigation to the standing crops.
- Farmers are advised to start harvesting/picking of matured crops of rice and cotton as favourable weather conditions prevail during these days.
- Farmers are advised to continue sowing of desi varieties of radish, peas, potato, palak and late season varieties of cauliflower and planting of fruits crops like sweet orange, lime mango and guava with irrigation facilities in Eastern and Western zone. Continue planting of Spring sugarcane in Eastern zone
- To check tick infection spray Asuntol @ 0.5% and Butox @ 0.02% on animal as well as on shed and repeat the spray after 10-15 days. To prevent loss of weight after calving follow balanced feed management i.e feed with mineral mix.

Delhi

- **Major Standing crops:** *Kharif* rice (milk / dough / maturity / harvesting), arhar (seed maturity / harvesting), vegetables (sowing / transplanting / early vegetative / vegetative), mustard, potato, gram, pea, lentil, raddish, carrot and fodder crop like berseem (sowing), broccoli, pea, tomato and late maturing varieties of cauliflower (nursery preparation).
- As rain is not likely to occur during next five days, farmers are advised to undertake intercultural operation to keep the crop fields weed free.
- Wherever *kharif* rice is at milk / dough stage, apply irrigation to maintain 3 – 5 cm of standing water.
- Remove water from the fields of *kharif* rice 10 – 15 days before harvesting of the crops. Weather condition is favourable to harvest already matured crops of rice.
- As the weather condition is favourable, farmers are advised to prepare land and undertake sowing of mustard, potato, pulses like gram, pea and lentil and fodder crop like berseem and planting of autumn

sugarcane. Select varieties from Pusa Jaikisan, Varuna etc. for sowing mustard, Azad Matar – 1, Bounivelle etc. for sowing pea and Kufri Bahar, Kufri Anand, Kufri Surya for plating of potato.

- Prevailing weather condition is favourable for land preparation and sowing of raddish and carrot and also for preparation of nurseries for broccolli, pea, tomato and late maturing varieties of cauliflower. Select varieties from Hill Queen, Pusa Deshi, Pusa Rashim etc. for raddish and Pusa Kesar for carrot for sowing. Select varieties from Pusa Broccoli [KTS-1], Palam Vichitra, Kanchan for broccolli, Pusa Hybrid 1, Pusa Hybrid 2, Pusa Rohini etc. for tomato and Pusa Snowball K1 and Pusa Himjyoti for cauliflower for nursery sowing.
- Under prevailing weather condition, farmers are also advised to undertake land preparation and sowing of seed crops of onion and garlic.

Uttar Pradesh

- Major Standing Crops: Summer sugarcane (vegetative), *Kharif* Rice (maturity / harvesting), jowar, bajra (maturity / harvesting), sesame, soybean (maturity / harvesting), *Kharif* pulses and maize (maturity), gram, rai, mustard (sowing), potato (planting).
- As there was no significant rain in most of the districts during last few weeks and mainly dry weather is likely to prevail, apply irrigation to sugarcane.
- As dry condition is likely to prevail, farmers are advised to undertake harvesting of already matured *kharif* rice, jowar, bajra, sesame and soybean.
- Under prevailing weather condition undertake land preparation and sowing of wheat, gram, pea, lentil, rai, mustard and early varieties of potatoes like Kufri Chandrmukhi, medium and late varieties Kufri Badshah, Kufri Bahar, Kufri Sindoori and Kufri Lalima.
- Undertake weeding, intercultural operations, application of fertilizers and pesticides in the standing crops.
- Undertake sowing / transplanting of garlic and vegetable pea with irrigation facilities. Adopt seed rate of 120-130 Kg / hectare for early varieties and 80-100 Kg / hectare for medium and late varieties of vegetable pea. Also adopt seed rate of 50-70 Kg / hectare for garlic and maintain spacing of 15 x 7.5 cm.

J & K

- Major Standing Crops: Pulses (harvest), Rice (harvest), Maize (harvesting). This is proper time for sowing of rabi crops
- As there was no significant rainfall during last week in the state and rain/snow are likely to occur at isolated places for the next 24 hours, apply irrigation to the crops.
- Undertake sowing of mustard (RLM-198 & Pusa Bold), gobi sarson, beseem crop (Mascavi, Pusa Giant BL-1), wheat (RSP-81), barley (Ratna, Jyoti and Sonu), gram (C-235, K-468, Guarav and PBG-1) and lentil (L-9/12, PL-406 and L-4147) in Jammu division.
- Undertake planting of onion and garlic in Kashmir divisions. Also continue sowing *rabi* crops like wheat, brown sarson, pea and lentil. Start planting of fodder oats slips.
- Undertake harvesting of crops like rice, pulses, maize and fodder crops in Kashmir division, rice in Jammu division and rice and maize in Rajouri.
- Undertake sowing of winter vegetable crops like spinach, lettuce, coriander, etc under protected structures like greenhouse and trenches in Leh division.
- Undertake sowing of mustard (RLM-198 and Pusa Bold in areas with altitude upto 800 m and RLM-514, RLM-619, Kranti, Varuna and Pusa Bold in areas with altitude 800 to 1500 m) in Doda, Reasi, Mirpur, Poonch, Rajouri and Udampur during the second fortnight of October.
- Under subtropical rainfed conditions, wheat variety RSP-81 may be sown in this fortnight in Doda, Reasi, Mirpur, Poonch, Rajouri and Udampur. Wheat sowing in intermediate zone may be started after one week for which land preparation may be done at this time.

- Undertake sowing of barley at this time (Jyoti and Sonu), gram (C-235, K-468, Gaurav and PBG-1) and field peas (T-163, PG-2, Rachna and HFP-3) from mid October to mid November in Doda, Reasi, Mirpur, Poonch, Rajouri and Udampur.

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

Bihar

- **Major Standing Crops:** Sugarcane (vegetative), *Kharif* rice (grain formation), Maize (vegetative), Pulses (vegetative).
- As mainly dry weather is likely to prevail for the next three days, apply irrigation to the standing crops.
- **North west alluvial plain zone:**
- Planting/sowing of sugarcane, rai and yellow mustard, rabi maize, pea, linseed, sunflower, radish and lentil may be undertaken by utilizing residual soil moisture. Select varieties from Hi Starch, Ganga 11, Laxmi, Deoki, Rajendra Shankar Makka 1 and 2, Shaktiman 1 and 2 for maize. Select varieties from *Rachna*, Arpana, Harbhajan and Malbiya mator for pea and T 397, Garima and Sweta varieties for linseed.
- **Flood affected North East alluvial plain zone:**
- Complete planting of early potato and continue sowing of *rabi* maize (Shaktiman 1, 2, 3 and 4) and berseem utilizing residual soil moisture.
- Undertake land preparation and arrange for seeds and other inputs for sowing wheat in November.
- **South Bihar:**
- Farmers are advised to continue land preparation and sowing of winter maize, potato, oil seeds like toria, rapeseed and mustard, sunflower and pulses like gram, lentil and pea by utilizing residual soil moisture. Recommended varieties of *rabi* maize are Lakshmi, Devki, Rajender Makka-1 and 2, Hi-stretch and Ganga -11. Select varieties of potato like Kufri Chandramukhi, Kufri Ashoka, Rajendra Potato-1, 2 and 3, Kufri Badshah, Kufri Lalima, Kufri Kuber and Kufri Alankar. Planting of potato may be undertaken till 15th November. The improved varieties of toria are Panchali, Bhawani, improved varieties of sarson are Rajendra -1 and Swarna and improved varieties of rai are Pusa bold, Kranti, Rajendra rai Pachheti, Rajendra Anukul and Rajendra Suknam. The improved varieties of gram are Rajendra Chana, Pusa-256 ,RAU-52, Pusa-240, Pusa-372 and SG-2. The improved varieties of lentil are Mallika, Arun, Pant L -639, Pant L-406 while improved varieties of pea are Rachna, Malvia, Arpana, Harbhajan and Pusa Prabhat (for green pod).
- Undertake planting of *autumn* sugarcane and fodder crops like Berseem, lucerne and Oat during this time. Also sowing of radish, palak, carrot etc. and transplanting of tomato, cauliflower and cabbage can also be completed in this week.

Jharkhand

- **Major Standing Crops:** *Kharif* rice (grain formation), arhar and early sown maize (late vegetative).
- As mainly dry weather is likely to prevail for the next three days, apply irrigation to the standing crops.
- Farmers are advised to undertake sowing of potato (Kufri Chandramukhi, K.Jyoti, K.lalima and O.N.2236 etc.) and pea (Arkel) utilising the residual soil moisture.
- Farmers are advised to undertake transplanting of brinjal, tomato, cauliflower with application of organic manure in the fallow upland field as early vegetable crop.
- Undertake sowing of paira crop like tissi, lentil in rice and sowing of mustard, *rabi* wheat varieties like PBW 343 and K9107.
- Due to congenial weather conditions, mild incidences of false smut may occur in rice, spray Carbendazim @ 1 g or Blitox @ 2 g/litre of water.

Orissa

- **Major Standing crops:** *Kharif* rice (flowering / grain formation stage and early sown crops at early maturity to harvesting stage.), Sugarcane (vegetative), vegetables (sowing / transplanting / vegetative / flowering / fruiting).
- As there was insufficient rainfall in most of the districts of Orissa during last few weeks and mainly dry weather is likely to prevail, apply irrigation to the standing crops.

Coastal Orissa:

- Undertake pyra cropping with green-gram, black-gram, lentil and mustard etc. Select HYVs of greengram like Tarm-1, Samrat, Kamdev etc., blackgram like Pant-U-19, Pant-U-30, B-3-8-8, LBG.17 etc., lentil like Asha, Pant-L-206, Pant-1-209 etc. and mustard like M-27, Parvati, Anuradha and TS-27. Use 25% more seeds of the recommended seed rate. Sow the seeds 15 days before harvest of standing crop.
- Undertake sowing of garlic in irrigated up-land and medium-land. Select HYVs like Phawari, Rajalbadi, Jamnagar and G-282 for sowing. Adopt 150 kg seeds / acre.
- Undertake sowing of fodder Oat.
- Cabbage seedlings are at 3- week stage in nursery. Undertake planting in main field. Plant the seedlings with a row spacing of 60 cm and 45 cm within the plants. Plant two rows of mustard at every 25 rows of cole crops to prevent the attack of pests which will act as an alternate host.
- Weather is optimum for planting of beans. Beans are of two types, viz. bush bean and runner bean. Sow the high yielding varieties such as Contender and Arka Kamala for bush bean and Kentucky Wonder for runner bean. Use 30- 35 kg seeds / acre depending upon the bean type.

Interior Orissa:

- Sowing of mustard may be started in a rice fallow. Select varieties like M-27, Anuradha, Parvati, PT-303 may be selected. Undertake sowing of vegetable crops as per the following recommendation.

Vegetables	Variety	Seed rate /acre
Brinjal	KB-47, BB-7,	300 gm
Tomoto	BT-10 ,Utkal Raja, Utkal Pragnya	300 gm
Cauli flower	Himlata, Snow ball, B-96	200 gm
Cabbage	Rareball, Delhiball-65, Pusa bahar, Golden acre	200 gm
Onion	Agrifound, lightred, N-53, Nasikred	4 kg
Potato	K.Jyoti, K.Lalima, K.Chandramukhi	480 kg

- Apply irrigation to late transplanted rice.
- Weather is favourable for the incidence of White backed plant hopper. Where ever the ETL (8-10 nymphs/ hill) for WBPH has been crossed, the farmers are advised to drain out water from the field and dry the field for 3-4 days and then to irrigate. Spray the crop with monocrotophos or hostathion or ferobucarb @ 2 ml / litre of water or ethofesprox @ 1 ml / litre of water. Rice crop has been severely attacked by bacterial leaf blight, immediately spray the crop with Streptocycline @ 1 g /10 litres of water and repeat spraying 2-3 times at an interval of 7 days.

West Bengal

- **Major Standing Crops:** Sugarcane (cane development), *aman* rice (milk / dough / early maturity), groundnut (pod maturity / harvesting), wheat, mustard, gram and lentil (land preparation / sowing) and potato (land preparation / planting).
- As there was no significant rain during last couple of weeks in most of the districts of the State and significant rain is not likely to occur over the State during next five days, apply irrigation to the standing crops. As mainly dry condition is likely to prevail, also apply irrigation to *aman* rice at milk / dough stage to maintain 3 – 5 cm water in the field.
- Under prevailing weather condition, start harvesting of already matured crops of *aman* rice.

- As weather condition is favourable, continue land preparation and sowing of seeds for mustard and wheat and planting of potato. Select improved varieties of mustard like Sita, Vagirathi, Varuna, Sarama, Binoy etc. and the seed rate is 1 kg per bigha. Sow early varieties of wheat like Rajlakshmi, H.P. 1701, Janak, HP-1209, BW-11 etc. for wheat for sowing. Divide the mustard field into small plots so that irrigation can be applied easily at later stage.

Sikkim

- **Major Standing Crops:** Orange (fruiting/harvesting), large cardamom (capsule maturity/ harvesting), ginger (rhizome development), maize (harvesting), rice (flowering). This is proper time for sowing of *rabi* crops.
- As there was no significant rainfall during last week in the state and rain/thundershowers are likely to occur at isolated places for the next three days, apply irrigation to the standing crops.
- Undertake land preparation and transplanting of *rabi* vegetable crops like cabbage, cauliflower, carrot, Chinese cabbage, knol-khol, garden peas, radish, turnip, lettuce, celery, spinach, etc., in medium and low hills with a possibility of light to moderate rainfall during next five days. Also undertake planting of *rabi* potato in medium and low hills.
- Continue sowing of wheat and mustard when the temperature is in the range of 20-23°C.
- **Plant Protection:** Regular inspections may be carried out to observe caterpillar/ shoot borer/shoot fly incidence if any and may be hand picked and destroyed mechanically. 1% Bordeaux mixture or copper oxychloride @ 3gm/ltr of water may be sprayed to the cardamom plants to protect from fungal diseases.
- Weather conditions are congenial for mild incidences of fruit fly and trunk borer in orange. Monitor the trees and undertake plant protection measures to control the pests.
- Monitor ginger for bacterial wilt in medium and low hills and collect and destroy the affected plants completely to prevent further spread of the disease.

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

Assam

- **Major Standing crops:** Arhar (vegetative / flowering), *sali* rice (flowering / grain formation / early maturity), black gram and green gram (flowering), cauliflower, cabbage, raddish, brinjal, tomato, knolkhol, onion and carrot (sowing / vegetative / flowering / fruiting), mustard, lentil, nizer and pea (sowing) and potato (planting).
- As there was good rain in most of the districts of the State during last week, farmers are advised to postpone irrigation to the standing crops.
- As mainly dry weather is likely to prevail, farmers are advised to undertake intercultural operation to keep the fields weed free.
- Under prevailing weather condition, farmers are advised to apply following recommended fertilizers to coconut and arecanut. Fertilizers should be applied in ring method at a depth of 15 cm and in a distance of 90 cm from the plant.
 - Coconut: Urea @ 750 g, SSP @ 1250 g, MOP @ 850 g and borax @ 25 g per plant.
 - Arecanut: Urea @ 115 g, SSP @ 125 g, MOP @ 137 g and borax @ 5 g per plant.
- As the weather condition is favourable, this is proper time to prepare land and sow cauliflower, cabbage, raddish, brinjal, tomato, knolkhol, onion, carrot etc.
- Condition is also favourable to undertake sowing of mustard, lentil, nizer and pea and planting of potato.
- Details of crop varieties are mentioned in Annexure I.

Arunachal Pradesh

- **Major Standing crops:** Ginger (rhizome formation / maturity), Vegetables (transplanting), Wet seeded rice (grain formation / harvesting), *Jhum* rice (harvesting) and millets (grain formation/harvesting), wheat, mustard, pea, *rabi* maize (sowing), potato (planting).
- As there was no significant rainfall in Changlang, East Kameng, Tirap and West Siang districts during last few weeks, apply irrigation to the standing crops. As the remaining districts received good rain during last week, postpone irrigation to the crops in these districts.
- Farmers are advised to continue land preparation and sowing of potato, wheat, rapeseed and mustard, pea, *rabi* maize and transplanting of winter cole vegetables by utilizing the realized rainfall.

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

Andhra Pradesh

- **Major Standing Crops:** Groundnut, Jowar, Bajra, Ragi and Maize (all harvesting), Sugarcane (grand growth), Rice (tillering to panicle initiation), Chillies (vegetative)
- As mainly dry weather is likely to prevail for the next three days, apply irrigation to the crops like sugarcane and chillies.

Coastal AP

Plain Land

- Farmers in Srikakulam are advised to complete harvesting of groundnut, jowar, bajra, maize, ragi and maize crops.
- Farmers in upland areas of West Godavari, Krishna, Guntur and Praskasam districts are advised to undertake *rabi* sowing of green gram (var: LGG 450, 460, 407, ML 267 and Pusa 105) and black gram (LBG 623, 20 and T 9).
- Farmers in the remaining districts are advised to undertake intercultural operations in *khairf* crops.
- **Plant Protection:** Weather conditions are congenial for the incidences of
- sheath blight, bacterial leaf blight, BPH and mealy bug in rice (at tillering to panicle initiation stage), whitefly and internode borer in sugarcane and leaf webber in red gram in Srikakulam, Vijayanagaram and Visakappattinam districts; undertake plant protection measures.
- red mite in brinjal and bhendi; undertake plant protection measures.

High Altitude Areas

- Farmers in high altitude regions of Srikakulam, East Godavari, Vijayanagaram, Visakappattinam and Khammam are advised to undertake intercultural operations and application of fertilizers and pesticides in *khairf* crops.
- Farmers are advised to complete harvesting of ragi.
- Complete sowing of mustard.
- **Plant Protection:** Weather conditions are congenial for
- leaf folder, gall midge and blast in paddy; undertake plant protection measures.

Rayalaseema

- Farmers in Anantapur are advised to continue sowing of coriander, Bengal gram, sunflower and maize.
- Farmers in Chiththoor are advised to undertake sowing of rice in the nursery.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- late leaf spot in groundnut in Anantapur district; undertake plant protection measures.
- stem borer and brown plant hopper in paddy, leaf spot and rust in groundnut, *Heliothis* in tomato and sucking pests in cotton in Cuddappah district; undertake plant protection measures..

Telangana

- Farmers in Karimnagar, Nizamabad and Adilabad districts are advised to apply supplementary irrigation to red gram, maize and turmeric as dry spell condition prevails in the districts for the last couple of weeks.
- Undertake sowing of *rabi* crops with supplementary irrigation.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- Stem borer in rice, leaf folder in red gram, *Spodoptera* in groundnut, leaf spot in turmeric, powdery mildew, phyllody and Bihar hairy caterpillar in sesamum and sucking pests in cotton in Karimnagar, Nizamabad, Warranagl and Medak districts; undertake plant protection measures.

Karnataka

- **Major Standing Crops:** Annual sugarcane (grand growth), Early sown *Kharif* crops (grain maturity/harvesting). This is proper time for sowing of *rabi* crops.
- As there was no significant rainfall during last week except in Dakshin Kannada, Bangalore (Rural & Urban), Chamrajnagara, Hassan, Kodagu and Mysore districts and mainly dry weather is likely to prevail for the next three days, apply irrigation to the standing crops. Postpone irrigation in the above districts as there was excess rainfall during last week.

Coastal Karnataka

- Farmers in Udupi and Dakshin Kannada districts are advised to undertake intercultural operations in rice, arecanut, coconut, cashew and banana.

North Interior Karnataka

- Due to stress conditions prevailing in Bellary, Bijapur, Bagalkot and Koppal districts, farmers are advised to undertake intercultural operations to conserve moisture in September sown sunflower.
- Farmers in Bidar region are advised to undertake sowing of *rabi* crops like irrigated wheat (till November 15th) and Bengal gram (October and November). Also undertake planting of sugarcane during October and November and sowing of vegetable crops like brinjal, tomato, cabbage and cauliflower in the nursery.
- Farmers in Dharwad are advised to undertake sowing of wheat, gram and safflower.
- Farmers in Bijapur are advised to undertake sowing of wheat during *rabi* season.
- Farmers in Raichur are advised to continue sowing of gram and safflower
- **Animal Husbandry:** In some parts of Dharwad district goats are affected with Viral Exthima leading to sever fever. To control this, undertake antibiotic treatment and separate the affected animal from the herd to prevent further spread.
- In and around Dharwad and surrounding villages Foot and Mouth disease has been noticed. Undertake vaccination. Due to cold weather sneezing is noticed indicating respiratory problem. Consult with the nearby veterinary doctor.

Plant Protection: Attack of necrosis is noticed in sunflower. Spray Imidachloprid 17.8 S.L @ 0.25 ml or Oxidematon 25 EC @ 1.5 ml per liter of water for necrosis.

- Weather conditions are favourable for mild incidences of:
- citrus canker, anthracnose in pomegranate, purple blotch and thrips in onion, *Phytophthora* blight in red gram and sucking pests in cotton in Bijapur; spray Streptomycin Sulphate (0.5 g) + Copper oxichloride (2g)/liter of water for citrus canker, Kavach @ 2 g/litre of water for anthracnose in pomegranate, Hexaconazole @ 1 ml + Acitamaprid @ 0.25 g/litre of water for purple blotch and thrips in onion, Redomil @ 4 g/litre of water for *Phytophthora* blight in red gram and Monocrotophos @ 1 ml/litre of water for sucking pests in ctton.
- sucking pests in early sown Bt cotton in Gulbarga; undertake plant protection measures.

South Interior Karnataka

- Farmers are advised to undertake land preparation and sowing of *rabi* crops by utilizing north east monsoon rainfall.
- Farmers in Bangalore, Kolar and Tumkur are advised to undertake intercultural operations and application of fertilizers in early sown crops.

- Farmers in Chitradurga and Shimoga are advised to undertake sowing of jowar, Bengal gram and safflower during *rabi* season. Select among A1 and GBS 964 for Bengal gram and A1, S-144 for safflower.

Plant Protection: weather conditions are favourable for

- Sigatoka leaf spot in banana and powdery mildew in bhindi in Shimoga. Spray Tridemorph @ 1 ml/litre of water for Sigatoka leaf spot in banana and spray Wettable sulphur @ 2.5 g/litre of water for powdery mildew in bhindi.

Kerala

- **Major Standing Crops:** *Virippu* rice (harvesting), vegetable and plantation crops (Coconut, Arecanut, Pepper and Cashew). This is proper time for planting of *mundakan* rice and *nendran* banana.
- Farmers in all the districts of Kerala are advised to undertake transplanting of *mundakan* rice by utilizing the northeast monsoon rainfall.
- As there was good amount of rainfall during last week in the state, farmers are advised to postpone irrigation to plantation crops.
- Undertake intercultural operations and application of fertilizers and pesticides in plantation crops (coconut, arecanut, pepper and cashew) by utilizing the northeast monsoon rainfall.
- Farmers in Thrissur district are advised to undertake sowing of bhindi (variety: Arka Anamika and Arka Abhay – mosaic resistant) by utilizing the northeast monsoon rainfall. Also undertake sowing of *Amaranthus* and cowpea as intercrops in plantation crops. Select Co 1 variety for *Amaranthus* as it is resistant for leaf spot.
- Farmers in Thrissur, Malappuram, Kasargod, Kozhikode and Kannur districts are advised to complete planting of Nendran banana.

Plant Protection: Weather conditions are favourable for the attack of

- leaf folder in rice and damping off in vegetable crops in Thrissur; spray Carbaryl @ 2g/litre of water for leaf folder and spray 1% Bordeaux mixture for damping off.
- mahali disease in arecanut in Thrissur, Malappuram, Kasargod, Kozhikode and Kannur districts; apply 1% Bordeaux mixture.
- wilt and anthracnose in pepper and powdery mildew in vegetable crops in Thiruvananthapuram; apply *Pseudomonas* culture @ 10 g/liter of water for wilt and anthracnose and Karathane @ 2 g/litre of water for powdery mildew
- blast, sheath rot and bacterial leaf blight in rice, red palm weevil, rhinoceros beetle, bud rot and stem bleeding in coconut, spindle bug and yellow leaf disease in arecanut, pollu beetle, quick wilt and burrowing nematode in pepper, Sigatoka leaf spot and burrowing nematode in banana, rot disease in cardamom and berry borer and white stem borer in coffee in Wayanad. Undertake plant protection measures.

Tamilnadu

- **Major Standing Crops:** Rice (*Kuruvai*) (grain maturity/harvesting), Early, Mid Sugarcane (harvesting stage), Special season sugarcane (grand growth stage), Sorghum (grain maturity), Cotton (boll maturity/picking stage). This is proper time for sowing of *rabi* crops.
- Due to heavy rains and water logging conditions during last two to three weeks, sowing of crops can be taken after receding of water. Postpone irrigation in standing *kharif* crops like groundnut, sugarcane and pulse crops.
- Farmers in Namakkal region are advised to undertake sowing of black gram and green gram after receding of water. Select among CO 7, Vamban 4 and Vamban 5 varieties.
- Farmers in Chennai, Cuddalore, Kanchipuram, Thiruvarur, Thiruvannamalai and Villupuram districts are advised to undertake sowing of vegetable crops after receding of water.
- Farmers in Thirunelveli, Tuticorin and Virudunagar are advised to undertake sowing of *rabi* crops after receding of water.
- **Animal Husbandry:** Due to rainy conditions in Chennai, Cuddalore, Kanchipuram, Thiruvallur, Vellore, Villupuram, increase in vector activity resulting in a slight rise in arthropod borne diseases

particularly blood protozoans like Anaplasmosis, Theileriosis and Trypanosomiasis and viral disease such as blue tongue amongst farm animals is expected. Undertake vector control for ticks and flies and midges under the guidance of veterinarians. Also avoid stagnation of water which can allow for fly and midges breeding sites. Also undertake prophylactic drenching with appropriate medication, for fluke infections like amphistomiasis and liverflukes.

Plant Protection: Present weather is conducive for mild incidences of

- scales in turmeric and stem borer in maize in Namakkal; spray Dimethoate @ 2.5 ml/litre of water for scales and Carbaryl @ 4 ml/litre of water for stem borer.
- seedling rot/damping off in chillies nursery in Thirunelveli, Tuticorin and Virudunagar districts. Spray Copper oxy chloride @ 2.5 g/liter of water.
- Sigatoka leaf spot in banana and bacterial leaf blight in rice in Coimbatore; undertake plant protection measures.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Maharashtra

- **Major Standing Crops:** Sugarcane (pre-seasonal & suru) (cane maturity), irrigated cotton (boll maturity), *kharif* groundnut (pod maturity / harvesting), *kharif* cotton (boll maturity in Nasik, Pune, Latur and Aurangabad divisions and boll formation/ boll maturity in Amravati and Nagpur divisions), *kharif* rice (grain maturity / harvesting in Konkan, Nasik, Pune and Kolhapur and grain formation /grain maturity in Nagpur division), soybean (seed maturity / harvesting), *tur* (flowering / pod formation), sunflower (seed maturity in Konkan and Pune, seed formation in other parts of the State), *rabi* safflower, *rabi* jowar, maize and gram (sowing / germination in Pune, Kolhapur, Nasik, Latur, Amravati, Nagpur and Aurangabad divisions).
- As there was no significant rain during last few weeks and mainly dry weather is likely to occur during next five days, apply irrigation to maintain 3 – 5 cm water in *kharif* rice in Nagpur at grain formation stage and also apply irrigation to sunflower at seed formation, *kharif* cotton at boll formation, *tur* at flowering / pod formation stage and sugarcane.
- Weather condition is favourable to undertake harvesting of already matured rice, soybean, groundnut, sunflower, jowar and bajra and picking of fully opened cotton boll.
- As the prevailing weather condition is favourable, this is proper time for sowing of *rabi* jowar. Select varieties from Maldandi 35-1, RSV-833, Selection-3, Phule Yeshodha & Mauli for sowing in Western Maharashtra Scarcity zone and Western Maharashtra Plain zone. Mauli variety gives good result in the medium soil. Use 10 kg seeds per hectare for sowing.
- As the prevailing weather condition is favourable, this is proper time for sowing of *rabi* safflower in Madhya Maharashtra, Marathwada and Vidarbha. For sowing of safflower in Western Maharashtra Scarcity zone and Western Maharashtra Plain zone, varieties like Bhima, Tara and Girna may be selected. Use 45 x 25 cm distance between rows of crop. Give seed treatment with Azotobactor before sowing.
- Under prevailing weather condition, this is proper time for planting of pre-seasonal sugarcane in all the districts of Madhya Maharashtra. Select varieties from Co-740, Co-7219, COM-88121, Co-8014, Co-86032, Co-94012 for planting.
- Under prevailing weather condition, farmers are advised to undertake sowing of *rabi* crops like maize, sunflower, gram and planting of potato.
- Also undertake transplanting of onion if seedlings are ready. If sowing is not done till date, undertake sowing with assured irrigation facilities. Select either N 2-4-1 or Phule Suvarna (Yellow) for cultivation in *rabi* season. The seed required is 8 to 10 kg for raising the seedlings to transplant the seedlings in one ha area.

Plant protection

- Red gram is likely to be infested by pod borer. For control spray 5% Neem extract or 35% Endosulfan @ 20 ml in 10 liters of water.

Gujarat

- **Major Standing Crops:** Sugarcane (cane development / early maturity), *Kharif* groundnut (seed maturity / harvesting), *Kharif* cotton (boll formation / boll maturity / picking), *Kharif* rice (dough / maturity / harvesting), castor (spike formation), mustard and vegetables (sowing / transplanting).
- As there was no significant rain during last few weeks in most of the districts of the State and mainly dry weather is likely to prevail during next five days, apply irrigation to sugarcane, *kharif* cotton, castor and vegetables. Also apply irrigation to *kharif* rice at dough stage to maintain 3 – 5 cm water in the field.
- As dry condition is likely to prevail, undertake intercultural operation in above mentioned crops to keep the fields weed free.
- Prevailing weather is conducive for harvesting of already matured crops of *Kharif* groundnut, pulses and *kharif* rice and also for picking of *kharif* cotton.
- As weather condition is favourable, undertake land preparation and sowing of mustard, cabbage, cauliflower and brinjal in North West Gujarat zone, mustard, garlic, cabbage, cauliflower, carrot, onion, raddish, brinjal and gram in North Gujarat zone, wheat, chickpea and cumin in Bhal and Coastal zone.
- Weather condition is also favourable to undertake sowing of vegetable crops like brinjal, tomato and cabbage in North Saurashtra region.
- Details of crop varieties are mentioned in Annexure I.

Rajasthan

- **Major Standing Crops:** Groundnut, bajra, jowar, maize, sesame, cluster beans, red gram, cotton and vegetables. All the crops are at harvesting stage. This is proper time for sowing *rabi* crops.
- As there was no significant rainfall during last week in the state and dry weather is likely to prevail for the next three days, apply irrigation to the crops.

East Rajasthan

- Undertake land preparation and sowing of mustard in Alwar, Bharatpur, Dholpur, Karauli and Sawai Madhepur districts. Select among Pusa gold, Maya, Vasundhara, PR 15, 45, Bio 902, NRCSB 506, 101 and Varuna. Also undertake sowing of gram (C 235, G 130, H 208, RSG 2), barley (RDB 1, RD 106, RD 57, RD 2052, RD 2035, RD 2503), onion (Pusa Lal, Arka Niketan, Desi Lal, Pusa Safed) and garlic (G 1, G 42, G 50, G 282, G 313).
- Undertake land preparation and sowing of irrigated gram in Ajmer, Dausa, Jaipur and Tonk districts. Use 70-80 kg seed per hectare. Keep row-to-row distance of 30 cm and select among RSG-888 (Anubhav), CSJD-884 (Aakash), RSG-44, Pusa-209, C-235 and H-208. Also undertake sowing of mustard and *rabi* vegetable crops like cabbage, raddish, onion and carrot.
- Farmers are advised to complete sowing of mustard in Udaipur during this week as suitable temperature is prevailing for mustard sowing. Undertake hoeing in early sown mustard and maintain optimum plant population.
- Start land preparation and arrange for sowing of wheat in Udaipur district. Select among Raj-4037, Raj-3765, Raj-3077, Lok-1, WH-147, GW-322, GW-273 and HI-8498. The normal time of sowing of wheat is first week to third week of November. Also complete planting of fodder oats slips.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- white fly and jassids in cotton in Alwar and Dholpur; spray Dimethoate or Methyl Demeton @ 1 litre/ha.
- sucking pests in vegetable crops in Banswara; spray Dimethoate @ 2 ml/litre of water.
- painted bug in early sown mustard in Ajmer, Dausa, Jaipur and Tonk district. Spray Endosulphan @ 4% or Quinalphos @ 1.5%

West Rajasthan

- Farmers in Barmer, Churu, Jalore and Jodhpur are advised to undertake sowing of *rabi* crops during these days. Select among Pusa kalyani, T-59, Varuna, Pusa Gold, RH 30A, PR-15, Bio-902, Pusa Jai Kisan for mustard. Farmers in Sriganaganagar and Hanumangarh may select among Pusa Gold, RGN 13, RGN-48, Varuna T-59 laxmi and RH 8812 varieties of mustard. Postpone sowing of mustard when temperature is higher. Undertake sowing of gram [GNG 663 (Varda), GNG 469 (Samrat), GNG 1292 (Kabuli), GNG 1581 (Gangaur), GNG 1499 (Gauri Kabuli)] and barley (RD 2052 and RD 2035) in Sriganaganagar and Hanumangarh
 - Farmers in Bikaner and Jaisalmer are advised to undertake sowing of *rabi* crops. Select among Pusa bold, T-59, Bio-902, Kranti and Arawali varieties for mustard and GNG-469, GNG-663, GNG-931, RSG-888 and C-235 for gram. In case of gram treat the seeds with Carbendazim @ 2 g/kg seed followed by Chloropyriphos @ 4.5ml/ litre of water then treat with *Rhizobium* culture before sowing. In case of mustard treat the seeds with Carbendazim @ 2 g/kg seed. Arrange seeds and other inputs for undertaking sowing of wheat, barley, oats and methi crops.
 - Undertake sowing of sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger in Barmer, Churu, Jalore and Jodhpur. Also undertake sowing of cumin
- Plant Protection:** Weather conditions are favourable for mild incidences of
- leaf eating caterpillar in fruits and vegetable crops in Barmer, Churu, Jalore and Jodhpur; spray Qunalphos @ 1.5 kg or Endosulphan @ 4.25 kg/hectre. Attack of leaf curl virus and bacterial leaf spot in chillies; spray Monocrotophos @ 1 ml/litre of water to control vector and to prevent spread of virus. To control bacterial leaf spot, spray Streptocycline @ 200 mg/litre of water + Copper oxy chloride @ 2.5 g/litre of water.
 - pink boll worm in cotton and white fly in sugarcane in Sriganaganagar and Hanumangarh; undertake plant protection measures.
 - Fruit fly in ber in Pali; spray Monocrotophos @ 1 ml + Endosulphan @ 1 ml/litr of water.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Major Standing Crops:** Sugarcane (grand growth), soyabean (pod development), maize (cob development), cotton (boll formation) and vegetable crops (transplanting). This is proper time for sowing of *rabi* crops.
- As there was no significant rainfall during last week and dry weather is likely to prevail over the state, apply irrigation to the standing crops.
- Undertake land preparation and planting of vegetables like mid cauliflower, cabbage, garlic and potato and sowing of coriander in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.
- Farmers in Indore, Mandsaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh are advised to undertake sowing of mustard, toria, sunflower and safflower. Also undertake planting/sowing of potato and pea.
- Farmers in Sehore, Bhopal, Damoh, Raisen, Sagar, Vidisha are advised to undertake sowing of *rabi* crops like wheat (Sujata, HW 2004 and HI 1500), gram (J.G 130, J.G 16, J.G 11, Jaki 92-18), chick pea (KAK 2 and J.G.K 1) and lentil (masoor) (J.L.S 1, J.L. 3, I.P.L 81)
- Undertake sowing of potato, berseem, garlic, pea, coriander, spinach and methi in Chhindwara and Betul districts with irrigation facilities at the earliest. Also undertake planting of *autumn* sugarcane and onion. Under rainfed conditions, undertake sowing of mustard, toria and safflower.
- Due to favourable weather conditions, farmers in Tikamgarh, Datia and Chattarpur are advised to undertake land preparation and sowing of mustard (Varuna, Pusa Bold, Kranti), gram (JG 315, JG 74, JG322), wheat and als. Do seed treatment before sowing. Also undertake sowing of marigold. (Pusa basanti, full orange) and papaya. Complete sowing of raddish (Pusa Rashim, Pusa White, Desi, Punjab White), carrot (Pusa Kesar, Meghali), spinach (Pusa jyot, pusa harit, pant composite-1) and methi (kasuri and pusa early). Undertake nursery for cabbage (Golden acre and Pride of India).
- Farmers in Jhabua are advised to undertake land preparation and sowing of *rabi* crops:

Wheat: Unirrigated/ Semi-irrigated: JWS-17, HW-2004, HI-1500, Malav Ratna (HD-4672) and Malav Shri (HI-8381).

Irrigated: GW-273, Kanchan (DL-803-3), WH- 147, GW- 190, GW- 322 and Malav Shakti (HI-8498).

Gram: JG- 412, JG- 226, JG- 11, JG- 130.

Maize: JM- 421, JM- 8, JM- 12, Chandan makka- 3, Ganga- 3, Ganga- 4, HPQM – 1.

- Undertake transplanting of winter vegetables i.e. tomato, brinjal, chilli, cauliflower, cabbage etc. Berseem and sowing of vegetable pea (Arkil) in Jhabua.
- **Animal Husbandry:** Provide proper ventilation and clean water to cattle and arrange for vaccination to save them from infectious disease in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts. Create smoke during the night in cattle shed to prevent cattle from mosquitoes and bees.
- Undertake vaccination in cattle against Anthrax, Galgotu, Black quarter and FMD in Indore, Mandsaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh. Also undertake deworming.
- Cattle should be kept in aeration condition and in dry place, provide balanced and nutrient rich feed having protein, carbohydrate, fat vitamins and antibiotics in Jhabua.
- **Plant Protection:** Weather conditions are favourable for
- Sucking pests (i.e. jassids and white fly) in cotton, fruits and vegetable crops in Jabhua hills zone, spray Methyl Dimethon 25 EC 10 ml/litre. Also fruit borer in tomato; spray Tricophos 40 EC 2ml/l of water.
- Spotted bollworm and leaf eating caterpillar in cotton in Chhindwara and Betul districts. Spray Endosulfan @ 1.5 litres/ha to control the pests.
- Red pumpkin beetle in cucurbits, sucking pest and powdery mildew in vegetables in Indore, Mandsaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh districts. Apply Methyl parathion @ 2% dust before fruiting to control red pumpkin beetle, spray Dimethoate @ 1.5 ml/litre of water to control sucking pests and spray Carbendazime @ 1 g/litre of water to control powdery mildew in vegetables .

Chattisgarh

- **Major Standing Crops:** Sugarcane (vegetative), black gram, groundnut (seed maturity / harvesting), *kharif* rice (milk / dough / grain maturity), pigeon pea (seed formation / early maturity), vegetables (sowing / transplanting).
- As there was no significant rain during last few weeks in most of the districts of the State and mainly dry weather is likely to prevail during next five days, apply irrigation to the standing crops. Under prevailing weather condition, also apply irrigation to *kharif* rice at milk / dough stage to maintain 3 – 5 cm water in the field.
- Due to clear weather conditions, undertake harvesting of black gram, groundnut and early varieties of rice.
- Temperature is optimum for sowing of gram, lathyrus, toria and linseed in *kharif* fallow. Sowing of *Utera* crops like lathyrus, linseed etc. under relay cropping system can also be done during this month.
- Present weather and temperature is optimum for proper germination of gram, lathyrus and linseed and other rabi crops, hence, it is advised to complete the sowing of these crops. Sowing of *Utera* crops like lathyrus, linseed etc. under relay cropping system can also be done by the end of this month if not yet sown.
- Weather conditions are suitable for transplanting of vegetables like tomato, brinjal and chilli etc. If the nurseries of above crops are ready, planting can be done preferably during afternoon hours to avoid the mortality. Sowing of winter season vegetable can also be done during this period.
- Present temperature trend is suitable for proper germination of sugarbeet in Bastar Plateau Zone. Hence, it is advised to prepare the fields well pulverized and complete the sowing of these crops during this month.

Plant protection

- Under present weather conditions blast disease may increase in rice crop. Hence, keep watch over the crop and to control this disease spraying of tricyclozole @ 8-10 g/ 10 liters of water is advised. At least 150-200 liter of solution will be required for spraying in one acre area.
- Under present weather condition incidence of brown plant hopper may occur in rice crop, hence it is advised to keep watch over the crop and in case of higher incidence spray emidachlopid @ 100 – 120 ml / ha or acetamiprid @ 100 – 120 g / ha or carbaryl 50 WP @ 2 kg / ha. Spraying of insecticides should be done at the bottom portion of the crop as the nymph and adults of this insect are mostly active at the bottom portion of the rice crop.
- Under cloudy weather conditions incidence of aphids may increase in vegetables. Hence it is advised to keep watch over the crops and take precautionary measures if needed.

Annexure I

Crop varieties of Assam

- **Cauliflower:** Improved Japanese, Pusa Synthetic, Snowball-16, Pusa Ketki etc.
- **Cabbage:** Golden Acre, Pride of India, Pusa Mukta, Drum head, Eclipse Drum Head, Hybrid-10, Hybrid-20 etc.
- **Raddish:** Pusa Himani, Pusa Deshi, Pusa Chetki etc.
- **Brinjal:** Pusa Kranti, Pusa Purple Long, Pusa Purple Round, JC-1, JC-2 etc.
- **Tomato:** Punjab Chhuhara, Punjab Kesri, Sioux, Pusa Ruby, Arka Abha, Arka Alok, Arka Abhijit, BT-1, Bilahi-1, Bilahi-2.
- **Knolkhol:** White Vienna, Purple Vienna.
- **Potato:** Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri etc.
- **Mustard:** TS-36, TS-38, Varuna, TM-2, TM-4, M-27 etc.
- **Pea:** T-163, Rasna, Banevila, Arkel, Azad, Alankar, HUP-2 etc.
- **Lentil:** B-77, L-9-12, P-L-406 etc.
- **Onion:** Pusa Red, Pusa Ratna, Pusa white.

Crop varieties of Gujarat

North West Gujarat zone

- **Mustard:** GM-1, GM-2, GM-3 etc.
- **Cabbage:** Kranti, Golden Acre, Pride of India, Coppen Market etc.
- **Cauliflower:** Early Kuvvari, Pusa Kartaki, Pusa Deepali etc.
- **Brinjal:** Guj. Brinjal– 6, P.L.R. 1, Junagadh Lambgoal, Mahicco- 11, 16 etc.

North Gujarat zone

- **Mustard:** Hy. Varieties viz. Guj – Mustard-1, 2, 3.
- **Garlic:** Guj. Garlic1 & 2.
- **Cabbage:** Kranti, Golden Acre, Pride of India, Coppen Market etc.
- **Cauliflower:** Early Kuvvari, Pusa Kartaki, Pusa Deepali etc.
- **Carrot:** Pusa kesar, Pusa Yamadgani, & Hissar Garikan etc.
- **Onion:** Pusa red, Nashik Lal, N 53 & H 48 etc.
- **Raddish:** Pusa Hemadri, White ICL, Japanees white, Pusa rashmi.
- **Brinjal:** Guj. – 6, P.L.R. 1, Junagadh Lambgoal, Mahicco 11, 16 etc.
- **Gram:** Guj – Gram-1, 2 or Kuleth – 5.

Bhal and Coastal zone

- **Wheat:** Arnej – 206, GW-1 & 2.
- **Chickpea:** Gujarat Chickpea – 1 & 2.
- **Cumin:** Gujarat Cumin-4.