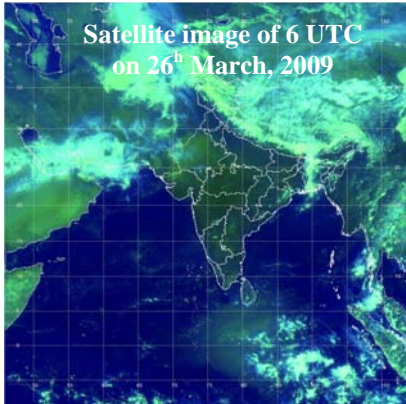




National Agromet Advisory Bulletin

Thursday, 26th March, 2009

(For the period 26th March to 30th March, 2009)



Satellite image of 6 UTC
on 26th March, 2009

Chief Synoptic Feature (Based on 0830 hours IST observations of 26th March, 2009)

- A fresh western disturbance is likely to affect northwest India during 27th to 30th March.
- The maximum temperatures are above normal by 4-6°C over northeast India and by 2-3°C over parts of central and east India. They are near normal over remaining parts of the country outside northwest India, where they are below normal by 3-5°C. The minimum temperatures are above normal by 3-4°C over parts of Rajasthan and Gujarat and below normal by 2-3°C over Punjab and Uttarakhand. The minimum temperature values are near normal over the remaining parts of the country.
- The current meteorological analysis suggests that fall in maximum temperatures by about 2°C over central and east India during next 24 hours.

Advisories for high temperature

- There are reports of relatively higher temperature in some pockets of northern and central parts of the country during last few weeks.
- As there was rainfall during last week and chances of rainfall due to another western disturbance during next three days, fall in maximum temperature is likely in northern parts particularly in Himachal Pradesh and Jammu & Kashmir.
- Fall in maximum temperature is also likely in Central and East India.
- Under these circumstances negative impact of high temperature on *rabi* crops like wheat in Madhya Pradesh, Chhattishgarh, Bihar and East Uttar Pradesh is likely to be reduced. Farmers are advised to harvest the already matured crops.

Advisories for irrigation

- As there was no significant rain in most of the remaining States of the country during last week and no significant rain is likely to occur for next five days, farmers are advised to apply irrigation to the crops as and when required.

Advisories for pest and disease

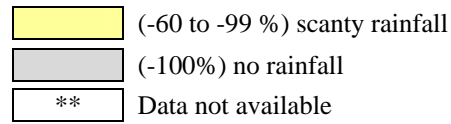
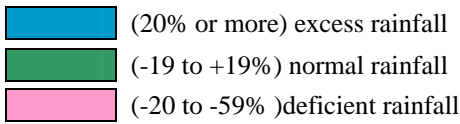
- Weather conditions are favourable for the incidence of pests and diseases in the following States:
 - fruit and shoot borer in brinjal in Orissa.
 - aphids in sarson in Himachal Pradesh.
 - tikka and rust disease in summer groundnut in Konkan.
 - loose smut/flag smut in wheat in Jammu.
- Monitor the crops for the pest and disease incidence and undertake plant protection measures, if required.

Issued by

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

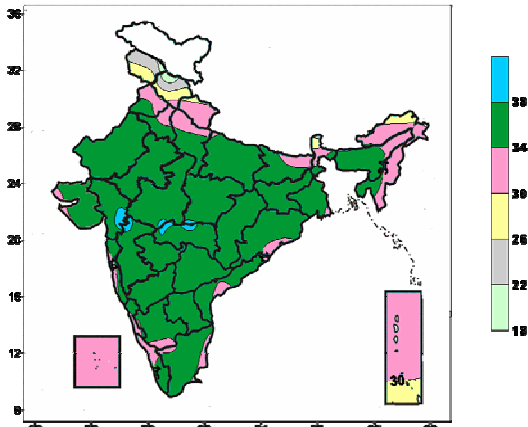
Comparison of weekly rainfall distribution (in % dep.) in different Met. Sub-divisions during past 5 weeks					
Sub-division	Cumulative Rainfall (% Dep.) for the period				
	25th February	4th March	11th March	18th March	25th March
A & N Islands	-100	-27	-72	119	256
Arunachal Pradesh	-40	29	-84	-99	-83
Assam and Meghalaya	-21	-45	-85	-100	-90
NMMT	-100	-54	-98	-100	-100
SH West Bengal & Sikkim	-97	-91	-99	-100	-27
Gangetic West Bengal	-100	-100	-90	-40	-70
Orissa	-100	-100	-100	-100	-77
Jharkhand	-100	-100	190	-100	-87
Bihar	-100	-100	-98	-100	-98
East Uttar Pradesh	-100	-100	-100	-100	-70
West Uttar Pradesh	-100	-100	-100	-100	-87
Uttarakhand	-100	-100	-100	-100	-97
Haryana, Chandigarh & Delhi	-100	-100	-100	-100	-8
Punjab	-99	-100	-100	-100	-26
Himachal Pradesh	-50	-99	-97	-99	-36
J & K	-13	-95	-88	-98	-53
West Rajasthan	-100	-100	-100	-100	7
East Rajasthan	-100	-100	-100	-100	-67
West M. P.	-100	-100	-99	-84	-94
East M. P.	-100	-100	-95	-95	-94
Gujarat region	-100	-100	-100	-100	-96
Saurashtra & Kutch	-100	-100	-100	-100	-100
Konkan and Goa	-100	-100	-100	113	-100
Madhya Maharashtra	-100	-100	-100	7	-92
Marathwada	-100	-100	-100	-96	-84
Vidarbha	-100	-100	-100	358	-46
Chhattisgarh	-100	-100	-100	-100	-100
Coastal A. P.	-100	-100	-99	-99	41
Telangana	-100	-100	-100	-90	127
Rayalseema	-100	-100	-100	-35	175
TamilNadu & Pondicherry	-99	-100	111	289	-6
Coastal Karnataka	-100	-100	-97	1117	2450
N. I. Karnataka	-100	-100	-99	52	292
S. I. Karnataka	-85	-100	-100	943	206
Kerala	-100	-99	-34	432	51
Lakshadweep	-100	-100	-100	-100	-95

The subdivisions like Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, West Bengal, Sikkim, Orissa, Bihar, Uttar Pradesh, Uttarakhand, Punjab, Himachal Pradesh East Rajasthan, Madhya Pradesh, Gujarat, Saurashtra & Kutch, Marathwada, Chhattisgarh, and Lakshdweep Islands received scanty / deficient rain in all the 5 weeks; Arunachal Pradesh, Jharkhand, Jammu & Kashmir, Haryana, Chandigarh, Delhi, West Rajasthan, Konkan & Goa, Madhya Maharashtra, Vidarbha and Andhra Pradesh, received scanty / deficient rain in 4 out of last 5 weeks; Andaman & Nicobar Islands, Karnataka and Kerala received scanty / deficient rain in 3 out of last 5 weeks.



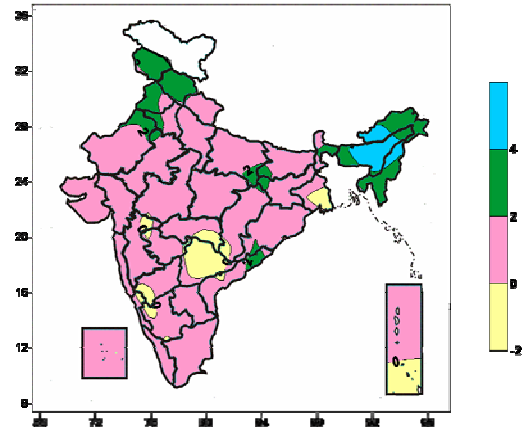
Contour maps for the week ending 25.03.09

Actual Mean Maximum Temperature (°C) in India for the week ending 25.03.09



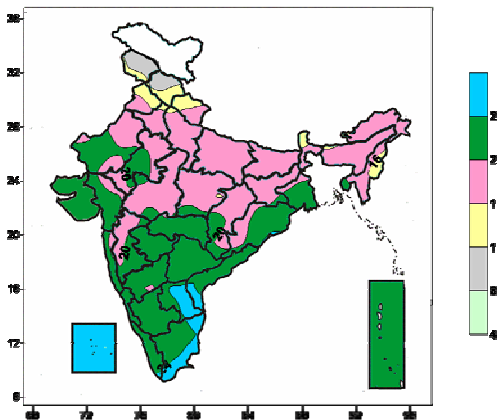
Actual Mean Maximum temperature ranged between 38 to 42°C over some parts of Gujarat, Madhya Maharashtra, Madhya Pradesh, Vidarbha, 30 to 34°C over most parts of Uttarakhand, North East India, Lakshdweep, Andaman & Nicobar Islands, some parts of Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal, Orissa, Coastal Andhra Pradesh, Konkan & Goa, Coastal Karnataka, South Interior Karnataka, Kerala, Tamil Nadu, 26 to 30°C over some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim, Arunachal Pradesh, Andaman & Nicobar Islands, 18 to 26°C over some parts of Jammu & Kashmir, Himachal Pradesh, 34 to 38°C over remaining parts of the Country.

Maximum Temperature (°C) Anomaly in India for the week ending 25.03.09



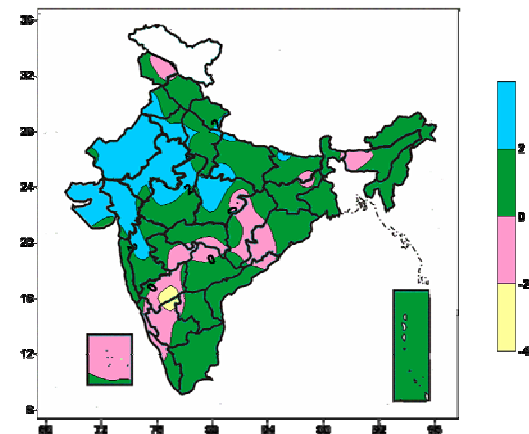
Actual Mean Maximum temperature anomaly ranged between 4 to 6°C over some parts of North East India, 2 to 4°C over most parts of Himachal Pradesh, Arunachal Pradesh, Manipur, Mizoram, Tripura, some parts of Jammu & Kashmir, Punjab, Haryana, Rajasthan, East Uttar Pradesh, Bihar, Jharkhand, Chhattisgarh, Sub Himalayan West Bengal, Assam, Orissa, Coastal Andhra Pradesh, -2 to 0°C over most parts of Telangana, some parts of Gangetic West Bengal, Madhya Maharashtra, Marathwada, Vidarbha, Chhattisgarh, Coastal Andhra Pradesh, Karnataka, Andman & Nicobar Islands, 0 to 2°C over remaining parts of the country.

Actual Mean Minimum Temperature (°C) in India for the week ending 25.03.09



Actual Mean Minimum Temperature ranged between 24 to 28°C over most parts of Lakshdweep, some parts of Coastal Andhra Pradesh, Rayalaseema, Tamil Nadu, 16 to 20°C over most parts of Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Sub Himalayan West Bengal, North East India, Madhya Pradesh,

Minimum Temperature (°C) Anomaly in India for the week ending 25.03.09

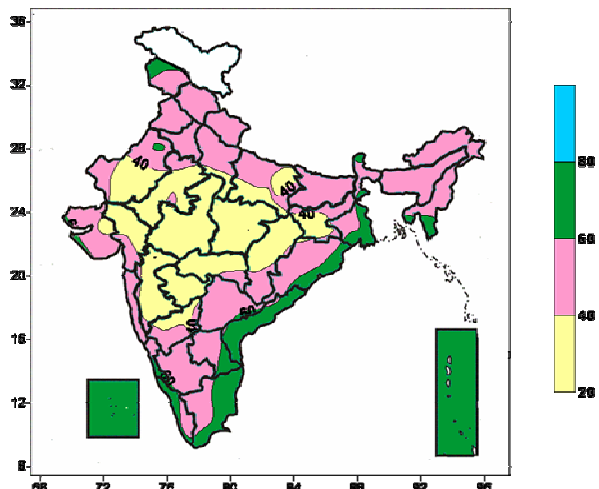


Minimum Temperature anomaly ranged between 2 to 4°C over most parts of Rajasthan, Gujarat, some parts of Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Madhya Maharashtra, Bihar, -2 to 0°C over most parts of Karnataka, Lakshdweep Islands, some parts of Jammu & Kashmir, East Madhya Pradesh, Chhattisgarh,

Chhattisgarh, over some parts of Punjab, Uttarakhand, Rajasthan, Gujarat, Konkan & Goa, Madhya Maharashtra, North Interior Karnataka, Gangetic West Bengal, Orissa, 12 to 16 °C over some parts of Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Uttarakhand, West Uttar Pradesh, Sikkim, Assam, Nagaland, Manipur, East Madhya Pradesh, 8 to 12°C over some parts of Jammu & Kashmir, Himachal Pradesh, 20 to 24°C over remaining parts of country.

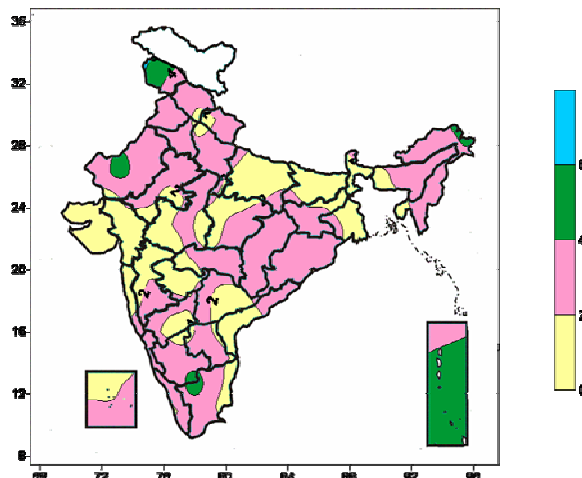
Bihar, Jharkhand, Orissa, Assam & Meghalaya, Marathwada, Vidarbha, Andhra Pradesh, Kerala, -4 to -2 °C over some parts of Interior Karnataka, 0 to 2°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 25.03.09



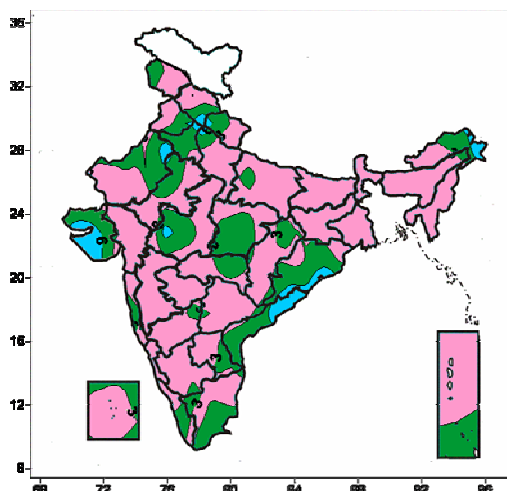
Relative humidity more than 60% to 80% over most parts of Coastal Orissa, Coastal Andhra Pradesh, Coastal Tamil Nadu, Lakshadweep, Andaman & Nicobar Islands, over some parts of Jammu & Kashmir, West Rajasthan, West Bengal & Sikkim, Mizoram, Tripura, Rayalaseema, Telangana, Coastal Karnataka, Kerala, 20 to 40% over most parts of Rajasthan, Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Chattisgarh, Gujarat, some parts of Uttar Pradesh, Jharkhand, Saurashtra & Kutch, North Interior Karnataka, 40 to 60 % over remaining parts of the country..

Cloud amount (okta) over India for the week ending 25.03.09



Cloud amount ranged from 4 to 6 okta over most parts of Andaman & Nicobar Island, some parts of Jammu & Kashmir, West Rajasthan, Arunachal Pradesh, South Interior Karnataka, Tamil Nadu, 2 to 4 okta over most parts of Himachal Pradesh, Punjab, Haryana, New Delhi, Uttarakhand, Rajasthan, West Uttar Pradesh, North East India, Jharkhand, Orissa, Chattisgarh, Coastal & south Interior Karnataka, Kerala, Tamil Nadu, Lakshadweep, some parts of Jammu & Kashmir, East Uttar Pradesh, Bihar, Sub Himalayan West Bengal, Madhya Pradesh, Maharashtra, Andhra Pradesh, Lakshdweep and Andaman & Nicobar Islands, 0 to 2 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 25.03.09



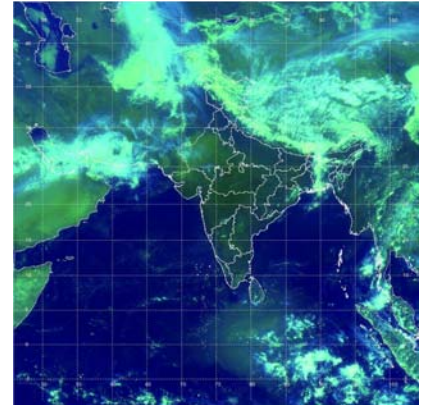
Wind speed ranged between 6 to 9 knots over some parts of Himachal Pradesh, Uttarakhand, West Rajasthan, Saurashtra & Kutch, West Madhya Pradesh, Arunachal Pradesh, Orissa, Coastal Andhra Pradesh, 3 to 6 knots over

some parts of Jammu & Kashmir, Punjab, Haryana, Himachal Pradesh, Uttarakhand, Rajasthan, Uttar Pradesh, Arunachal Pradesh, Assam, Saurashtra & Kutch, Madhya Pradesh, Konkan & Goa, Vidarbha, Chattisgarh, Orissa, Andhra Pradesh, Interior Karnataka, Kerala, Tamil Nadu, Lakshdweep, Andaman & Nicobar Island, 0 to 3 knots over remaining parts of the country.

Chief Synoptic Feature (Based on 0830 hours IST observations of 26th March, 2009)

Satellite image of 6 UTC on 26th March, 2009

- A fresh western disturbance is likely to affect northwest India during 27th to 30th March.
- The maximum temperatures are above normal by 4-6°C over northeast India and by 2-3°C over parts of central and east India. They are near normal over remaining parts of the country outside northwest India, where they are below normal by 3-5°C. The minimum temperatures are above normal by 3-4°C over parts of Rajasthan and Gujarat and below normal by 2-3°C over Punjab and Uttarakhand. They are near normal over the remaining parts of the country.
- The current meteorological analysis suggests that fall in maximum temperatures by about 2°C over central and east India during next 24 hours.



Zone-wise Forecast (Forecast valid upto 0830 hours IST of 29th March, 2009)

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

- Isolated rain/thundershowers are likely over Jammu & Kashmir during next 24 hours and at a few places thereafter.
- Isolated rain/thundershowers are likely over Himachal Pradesh and Uttarakhand from 27th onwards.
- Rain/thundershowers are likely at a few places on 27th and thereafter at isolated places over Punjab and Haryana.
- Isolated rain/thundershowers are likely over the rest region from 27th March.

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

- Isolated rain/thundershowers are likely over West Bengal & Sikkim, Orissa and Jharkhand.
- Mainly dry weather over the rest region.

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

- Rain/thundershowers are likely at a few places over the region.

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

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

WEST INDIA [GOA, MAHARASHTRA (OTHER THAN VIDARBHA), GUJARAT, RAJASTHAN]

- Isolated rain/thundershowers are likely over Rajasthan from 27th March.
- Mainly dry weather is likely over the rest region.

CENTRAL INDIA [M.P., CHHATTISGARH, VIDARBHA]

- Mainly dry weather over the region.

Weather Outlook from 0830 IST of 29th March, 2009 to 0830 IST of 31st March, 2009 (Based on numerical

weather products):

- Isolated rain/thundershowers activity is likely over northwest India.
- Scattered rain/thundershowers accompanied with isolated thundersquall are likely over northeastern states.

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), wheat (flowering / grain formation), barley and oat (flowering / grain formation), oil seeds (pod formation), potato (planting / vegetative / tuber formation), cabbage, cauliflower and broccoli (head formation), pea (pod formation/early maturity), leafy vegetables like lettuce, methi, palak, dhania etc. (vegetative).
- For seed crop of berseem and oat one cut can be taken. Apply urea to irrigated crop of oat where first cut has been taken.
- Weather is favourable and also it is optimum time for sowing of Chari, bajra and maize in low hills.
- Under prevailing weather it is advised for nursery sowing of tomato, chilli, summer squash, capsicum, brinjal, ridge gourd and bitter gourd in poly houses.
- It is time for sowing of ageti bhindi and french bean in the field.
- As weather conditions are favourable for sowing of pea and beans in high hills.
- It is optimum time for plantation of gladiolus and liliun. To prepare the planting material of carnation terminal bud of 8-10 cm length may be cut and planted. It is also optimum time for raising nursery of summer flowers viz. China aster, glardia, rudevekia, Kochia, African Marigold, French Marigold, partulaca, Tithinia, Torinia and cleome etc.
- Undertake sowing of tomato, capsicum, cucumber, brinjal and french bean in sub montane and low hills sub tropical zone.
- Weather is congenial for production of white button mushroom in the closed room. Maintain room temperature at 18-22⁰C and relative humidity around 85% for successful cultivation.
- Harvest the early matured pods of pea to protect from hailstorm. Cover the flower crops in open fields with hailnets.
- In areas where snow has melted from the apple orchards, basin forming should be carried out and required fertilizers should be applied and irrigate in the basin.

Plant protection

- The weather is conducive for attacks of aphids in sarson, for control spray Rogar @ 1ml per litre of water.
- There are chances of attack of peach leaf curl disease in peach and pear fruit plant where fruit bearing has started. For control spray Nuvan @ 1 ml + 3 g Blitox per litre of water.
- In coming week late blight may appear in potato due to congenial weather condition. For the control of late blight of potato spray Dithane M-45 @ 25 g in 10 litres of water and repeat the spray at 10-15 days interval.
- Aphids are appearing in the seed crop of cole crops and there is also chance of increase of the infestation under prevailing weather. For control, spray Rogor @ 1ml per litre of water.
- Under prevailing weather condition there is possibility of infestation of powdery mildew. For control of powdery mildew in peas spray Sulfex @ 25 g per 10 litres of water or karathane @ 5 ml per 10 litres of water.
- Weather condition is also congenial for downy mildew in cruciferous vegetables. For control spray Redomil M-Z @ 25 g per litre of water at 15 days interval.

- Do white washing on the stem of the trees of apple with 10 kg Chuna + 100 gm. of Copper oxichloride + 25 liters of water to protect from diseases and direct solar radiation.
- **Honeybees**
- The winter packing may be taken away as the temperature is rising. The weak apiary should be given artificial food. Also insert empty frame /combs for egg laying to the queen as the population starts building up.
- Dust sulphur on sealed brood in the colony and not on larvae to control mite attack on honeybees.

Animal Husbandry

- Pregnant and lactating cows and buffaloes should be given 2 kg feed for their body maintenance and additional 1 kg for developing calves with mineral mixture @ 15-30 g per day. For milch animals 2 kg feed + one kg additional feed per 2.5 kg milk production should be given.

Poultry

- Replace the poultry houses with fresh litter to avoid wetting. Give clean water to birds. For precautionary measures spray formaline 40% @ one litre in 9 litres of water outside or surrounding the farm.
- Also do not allow human and birds from outside. This will help in protection from bird flu.

Uttarakhand

- **Major Standing Crops:** Sugarcane (harvesting), wheat (early maturity), mustard, chickpea and lentil (early maturity), cabbage, onion, garlic and tomato (vegetative), summer sunflower (early vegetative).
- Undertake field preparation and planting of sugarcane with irrigation facilities.
- Farmers are also advised to continue sowing of foxtail millet with improved local varieties under optimum soil moisture.
- As there was no significant rainfall during last few weeks and no significant rainfall is likely for next five days over the State, apply irrigation to the crops.
- Undertake harvesting of matured crops of wheat, mustard, chickpea, potato, lentil, sugarcane and *toria*.
- Farmers are advised to undertake field preparation and sowing of sunflower with irrigation facilities. Sow certified seeds of high yielding varieties.
- Farmers are advised to undertake field preparation and sowing of non seasonal pea with improved varieties in high hills.
- As weather is favourable for sowing of moong and urd, undertake sowing of these crops with irrigation facilities.
- Farmers are also advised to undertake sowing of bhindi, french bean and tomato. Ensure proper soil moisture at the time of sowing.
- Details of varieties are given in Annexure I.

Plant Protection: Weather conditions are favourable for mild incidences of

- aphid incidence in late sown wheat by which leaves will have yellow spots. If such symptoms are seen then farmers are advised to spray 25 EC Propikonazole @ 200 ml per 400 litres of water per acre after current spells of rain for effective control. Continue rouging in standing wheat crop.

Punjab

- **Major Standing Crops:** Horticultural crops (vegetative), spring sugarcane (early vegetative), wheat (grain formation), gram and lentil (early maturity), pea and vegetable crops like chilly, tomato, brinjal and onion (early vegetative) and oilseeds (early maturity), summer pulses, sunflower(early vegetative/vegetative), summer rice(tillering)
- As there was no rainfall during last few weeks and no significant rainfall is likely for next five days over the State, apply irrigation to the crops.
- Farmers are advised to complete transplanting of chilli, tomato, brinjal and onion with irrigation facilities. Undertake sowing of cucurbits in polythene bags for raising early crop.
- Complete field preparation and planting of sugarcane with irrigation facilities.
- Farmers are advised to undertake field preparation and nursery sowing of bhindi.

- Details of crop varieties are mentioned in Annexure I.
 - Farmers are advised to raise nurseries of muskmelon, pumpkin, chillies and capsicum.
 - Farmers are advised to undertake planting of deciduous fruit crops like pear and phalsa. Pruning in grapes may be completed.
 - Undertake intercultural operations in tomato, onion and chillies.
 - Undertake layering of litchi trees and side grafting of mango for their propagation.
 - Apply 50 % N as top dressing to summer rice at 21 days after transplanting. Maintain 2.5 cm standing water in the field from 7 to 25 days after transplanting. Always apply fertiliser after draining water from the field and irrigate after 48 hrs.
 - Weather is favourable for sowing greens(*Khada*). Lay out small beds of 5ft. long, 4 ft. wide with bunds all around and use 4-6 kg seeds per acre. Because of small size seeds, mix the seeds with coarse sands for easy sowing. Cover the seeds with soil by hands followed by straw to avoid high temperature.
- Plant Protection:** Weather conditions are favourable for mild incidences of
- pod borer attack in gram; spray 400 ml Endosulfan 35 EC or Quinalphos 25 EC or 200 ml Monocrotophos 36 SL in 100 litres water per acre on a non rainy day.

Haryana

- **Major Standing Crops:** Spring sugarcane (early vegetative), vegetable crops (early vegetative), wheat (grain formation) and oilseeds (early maturity), summer pulses, sunflower(early vegetative)
 - As there was no rainfall during last few weeks and no significant rainfall is likely for next five days over the State, apply irrigation to the crops.
 - Complete the planting of sugarcane with irrigation facilities. Intercrop of summer moong or summer mash may be sown.
 - Complete sowing of berseem.
 - Details of crop varieties are mentioned in Annexure I.
 - Farmers are advised to prepare the field and continue sowing of cucurbits.
 - Undertake intercultural operations in tomato, onion and chillies.
 - Farmers are also advised to continue sowing of pigeon pea.
 - Pruning in grapes may be completed.
 - Undertake planting of fruit crops like citrus, mango, litchi, guava and ber.
 - Farmers are advised to give the 50grams Iodized salt along with 50 to 100 grams mineral mixture daily to keep calves and adult animals healthy.
- Plant Protection:** Weather conditions are favourable for mild incidence of
- thrips attack in onion, hence the farmers are advised to spray the crop with 300 ml Malathian 50 EC or 75 ml Fenvalerate 20 EC or 60 ml Cypermethrin 25 EC with 250 liters of water per acre.
 - thrips in grapes; spray 500 ml Malathion 50 EC or 150 ml Fenvalerate 20 EC in 500 litre water per acre.

Delhi

- **Major Standing crops:** Vegetables (vegetative / flowering / fruiting / harvesting), *toria* (maturity / harvesting), mustard (seed maturity/harvesting), potato (tuber maturity / harvesting), gram (grain formation / maturity), wheat (milk / dough).
- As there was no significant rain during last few weeks and isolated rain/thundershowers is likely to occur from 27th onwards over the State, apply light and frequent irrigation to wheat, vegetables, gram etc.
- Conserve moisture in the soil where the crops are at maturity stage.
- As dry weather is likely to prevail, farmers are advised to continue harvesting of already matured crops of potato, *toria*, mustard, gram etc.
- Farmers are advised to sow the seeds of tomato (HS 101, HS 102, Pusa Rubi etc.) as the weather condition is favourable.

- As present weather conditions are favourable, farmers are advised for direct sowing of vegetables like ladies finger, bottle gourd, ridge gourd, cucumber etc. and also transplanting of sugarcane.
- Present weather condition is favourable for infestation of pod borer in gram. Farmers are advised to monitor the crops and use pheromone traps for managing the pest. Under high infestation farmers are advised to spray Endosulfan 0.07% when the population crosses Economic Threshold Level (ETL).
- Farmers are advised for regular monitoring against fungal disease on flower panicle of mango.
- Monitor mango for aphids and cucurbits for powdery mildew and red pumpkin beetle as congenial weather conditions prevail for the attack of the above pests and diseases. Undertake plant protection measures in case of severe damage.

Uttar Pradesh

- **Major Standing crops:** Sugarcane (grand growth / cane formation), mango (fruit setting), rai, mustard, gram, pea and lentil (maturity/harvesting), wheat (grain formation), *zaid* maize(seedling/early vegetative).
- As there was no significant rain during last few weeks and no significant rainfall is likely to occur for next five days over the State, apply irrigation to the crops.
- Continue picking of vegetable crops depending upon the market demand.
- Undertake weeding, intercultural operations, application of fertilizers and pesticides in the standing crops like early sown *zaid* maize, garlic and onion as favourable weather conditions prevail during these days.
- Sowing / transplanting of onion may be completed.
- Farmers are advised to continue harvesting of the matured crops of pea, sugarcane, rai and *toria* as favourable weather conditions are prevailing.
- Sowing of *zaid* maize at seed rate of 18-20 kg / hectare may be continued.
- Prepare field and continue sowing of summer sugarcane, vegetables, sunflower, moong, lobia and urd with irrigation facilities. Details of crop varieties are mentioned in Annexure I.
- To save the mango fruits from falling, spray the solution of Naphthalene acetic acid 15 ppm.
- **Plant Protection:** Weather conditions are favourable for mild incidences of hopper in mango and leaf eating caterpillar in summer vegetable crops. Monitor the crops for the pests and undertake plant protection measures to control the pests.

J & K

- **Major Standing Crops:** Wheat (grain formation), pulses (pod formation), mustard (capsule formation/development). This is proper time for planting of orchard tree saplings in Jammu and sowing/ transplanting of vegetable crops in nursery/main field in Leh, Jammu and Rajouri divisions.
- As rain/thundershowers is likely to occur at isolated/few places over the state, apply irrigation to the crops.
- Continue planting of potato in the main field in Kashmir division.
- Continue planting of saplings in orchard and nursery sowing of cole crops in Leh division.
- Undertake sowing of vegetable crops like bhindi, beans, cucurbits and transplanting of tomato, brinjal and chillies in Jammu and Rajouri divisions. Undertake transplanting of popular trees in main field in Jammu division.
- Intercultural operations, sowing of crops and application of fertilizers and pesticides may be undertaken on a non rainy day.
- Weather conditions are congenial for mild incidences of aphids in late sown mustard and loose smut and flag smut in wheat/barley in Jammu division; monitor the crops for the pests and diseases and undertake plant protection measures on a non rainy day.

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

Bihar

- **Major Standing Crops:** Sugarcane (vegetative), *rabi* maize (cob formation), pulses (early maturity), sunflower (head formation), wheat (grain formation) and *boro* rice (tillering/vegetative), summer moong, urd, sunflower, sesame(early vegetative)
- As there was no significant rain during last few weeks and mainly dry weather is likely for next five days over the State, apply irrigation to the crops.
- Avoid moisture stress in summer vegetables and maize crop by maintaining adequate soil moisture as moisture stress at this stage affects the yield of these crops. Avoid irrigation to fruit crops during flowering.
- Undertake intercultural operations, application of fertilizers and pesticides in summer vegetables, tomato, brinjal, cauliflower, cabbage and *boro* rice.
- Farmers are advised to complete the planting of sugarcane. Complete sowing of summer urd, maize, sunflower and moong crops.
- Farmers are also advised to harvest the matured rapeseed, gram, pea, lentil and mustard crops as weather favourable for undertaking harvesting.
- **Plant Protection:** Weather conditions are favourable for mild incidence of litchi mite and borer in litchi orchards. Spray Rogor @ 1.5 to 2.0 ml / litre of water against borer insects immediately.

Jharkhand

- **Major Standing Crops:** wheat (grain formation), *rabi* oilseeds (early maturity), summer maize(early vegetative).
- As there was no significant rain during last few weeks and no significant rain is likely for next five days over the State, apply irrigation to the crops.
- Undertake field preparation and sowing of summer moong. Use seed rate 30 kg per hectare and apply 44 kg Urea, 250 kg SSP 34 kg MOP per hectare before sowing. Treat the seed with *Rhizobium* culture.
- Undertake transplanting of onion and sowing of bitter gourd, sponge gourd, ridge gourd, bhindi and water melon in the main field.
- Farmers are advised to undertake weeding, intercultural operations in early sown summer rice, maize as weather is favourable.
- Farmers are advised to harvest the matured crops of sugarcane and allow ratoon. Irrigate the field after application of recommended dose of fertilizer and give earthing up.

Orissa

- **Major Standing crops:** Sugarcane (seedling/early vegetative), sunflower, mustard (maturity), vegetables (fruiting / harvesting), wheat (grain formation), potato (maturity), onion (vegetative) and summer rice (vegetative), summer sunflower(vegetative), summer sesame, pulses like cowpea, green gram(early vegetative/vegetative) and summer groundnut (vegetative / flowering).
- As there was no significant rain during last few weeks and no significant rainfall is likely to occur for next five days over the State, apply irrigation to the crops. Sprinkler irrigation should be provided to the orchard crops and vegetables.
- As weather conditions are favourable for jute sowing. Sow the recommended variety JRO-524 (Naveen) which is resistant to mite. Apply 5 cart load of FYM per acre during last ploughing and apply 12:12 kg PK/acre as basal. Use 2 kg seeds/acre for line sowing and 3 kg seeds for broadcasting. Before sowing seeds are to be treated with Carbendazim 2 G or 3 g Thiram/kg seeds to avoid root and stem rot. To maintain 2 lakh healthy plants per acre, sow the seeds in lines at 25 cm apart with 3cm depth.
- The early sown sesame crop is at 3 to 4 week stage. Apply 13 kg. urea per acre followed by earthing up. Irrigate the crop after fertilizer application.
- Summer sunflower crop is at pre -flowering stage. Spray 2-3 g Borax per litre water.
- Current weather conditions are favourable for planting of pine apple, tuberose and marigold. Use healthy, robust 3-4 months aged pineapple rhizomes of 350-400 g by weight. Plant the seedlings in 0.5x0.5x0.5 m pit at a spacing of 1x 0.3 m distance.

- Transplanting of vegetables should be done in afternoon hour to avoid high temperature and place the paper cap over the freshly transplanted seedlings.
- Irrigation may be applied in summer pulses at the critical stages like flowering, pod formation and grain filling stages of the crop. Irrigate the summer moong at pre-flowering stage.
- Farmers are advised to complete planting of papaya. Details of crop varieties are mentioned in Annexure I.
- As weather is favourable, undertake intercultural operations and top dressing in early sown summer groundnut, sunflower, sesame and pulses.
- Maintain average water depth at 5ft level in the fish pond. Feed fishes with oil cake, bran mixture at 2% of their body weight daily. Start partial harvesting of fishes above ABW 750g.
- **Plant Protection:** Weather conditions are favourable for mild incidence of
- fruit and shoot borer in brinjal. Release 20,000 *Trichogramma* parasites per acre or spray 1 litre of 300 ppm neem based pesticides or 1000 g Carbaryl per acre in 200 litre water.
- fungal leaf blight in brinjal and tomato. Spray 1 g Saaf or Sixer or Companion in 1 litre water.
- stem borer in summer rice . The farmers who have not taken up any control measure are advised to fix light traps for moth destruction and apply granular insecticides like Fipronil 0.3 G @6 kg / acre or Cartap Hydrochloride @ 5kg / acre. EC formulations like Triazophos or Prophenphos can be sprayed @400 ml/200 lit of water.
- thrips in summer groundnut. Spray 400 ml Dimethoate or Endosulphan or 50 ml Imidachlopid in 200 litre water per acre.

West Bengal

- **Major Standing Crops:** Sugarcane (cane maturity / harvesting), gram and lentil (seed maturity / harvesting), wheat (milk / dough / early maturity) and *boro* rice (tillering), jute (sowing).
- As there was no significant rain during last few weeks in most of the districts of the State and no significant rain is likely to occur during next five days, apply irrigation to standing crops.
- As congenial weather is likely to prevail, farmers are advised to undertake intercultural operation to keep the fields weed free.
- Keep 5 to 7 cm standing water in *boro* rice field. Apply second top dressing of 9 Kg Urea per bigha of land. For late transplanted crop apply first top dressing of fertilizer (Urea @18 kg / bigha).
- Prepare the land for sowing of jute. Apply two cart of FYM during land preparation. Collect good quality seed material in advance.
- Also prepare well drained and sandy loam soil for green gram. The seed rate varies from 2.5 to 3 kg / bigha when sown in broadcasting. Seed should be inoculated with *Rhizobium* culture before sowing.
- Planting of corms of gladiolus should be completed in Hill Zone. Before planting the corms should be treated with Carbendazim @ 1 g / litre of water.
- Details of crop varieties are mentioned in Annexure I.
- In the prevailing weather condition, there is stem-borer attack in maximum crop field in New Alluvial zone. If the infestation is more than 10%, apply Triazophos or Hostathion @1.5 ml/lit of water.
- Due to favourable weather condition, rice plant may be infected by bacterial leaf blight disease in Coastal Saline zone. Spray the crop with Validamycin @ 0.2 ml/ litre of water.
- There is report of moderate to heavy infestation of different types of caterpillar in sesame which may also be increased. To control apply Endosulfan @ 2 ml per litre of water.
- Due to high humidity for last few days there may be chance of incidence of fruit & shoot borer in bhindi in Coastal Saline zone. Thus apply alternatively Phosphamidon 85 EC @ 1 ml / litre or Endosulfan 36 EC @ 1.5 ml / litre or Triazophos 40 EC @ 1.2 ml / litre of water when the symptoms are found.

Sikkim

- **Major standing crops:** (a) **High hills: Off-season vegetable crops** (nursery sowing/ seedlings) (b) **Medium & Low hills: Orange** (flowering); **large cardamom** (flowering); **wheat** (milk/ dough);

mustard (capsule/grain development/maturity); **vegetable crops** (flowering/ fruiting/ harvesting); **rabi potato** (maturity/harvesting).

- There was no significant rainfall during last few weeks and isolated rainfall is likely to occur for the next five days. Hence, light and frequent irrigation should be applied to vegetable crops, wheat and large cardamom in medium and low hills.
- As there are chances of isolated thundershowers in high hills, the seedlings of vegetable crops may be protected from onslaught of hail stone showers.
- Apply mulches around Orange trees in the mid hills in order to conserve sufficient moisture supplemented with light irrigation wherever possible to avoid moisture stress in the soil during prevailing low humid conditions.
- Pre-treated, healthy & certified seeds of kharif vegetable crops like tomato, chilly, capsicum brinjal, lali sag, ladies finger, radish etc. may be sown in nursery beds and climbing plants like bodi, iscus, bitter and other gourds in suitable places after applying FYM/compost and irrigating the soil with enough water in order to allow proper germination.
- Maintain large cardamom sucker nursery; apply FYM (dry and powdered)/compost; and undertake intercultural operations.
- Farmers are advised to undertake sowing of maize crop with sufficient moisture level in the soil.
- All the disease/pest infected suckers in the nursery and all the aged/diseased/unproductive plants in the field of large cardamom crop may be removed/uprooted and destroyed.
- Chirke and Foorkey infected cardamom plants may be destroyed by uprooting and buried in the pits at regular intervals.

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

Assam

- **Major Standing crops:** Arhar (harvesting), vegetables (vegetative / flowering / fruiting / harvesting), mustard, lentil and pea (harvesting), wheat (dough / early maturity), *boro* rice (tillering/vegetative), *ahu* rice (transplanting), jute and maize (sowing).
- Farmers are advised to undertake intercultural operation on a non rainy day to keep the fields weed free.
- Farmers are advised to undertake harvesting of already matured crops of arhar, potato, mustard, lentil and pea.
- Maintain 3-5 cm stagnant water in *boro* rice field.
- Sowing of direct seeded *ahu* rice may be undertaken as the weather is likely to be fair & dry in the next week. Transplanted *ahu* rice may also be raised where irrigation facilities are available.
- As weather condition is favourable, undertake sowing of black gram and green gram. Sowing may be completed by this week.
- As present weather condition is favourable, farmers may go for cultivation of summer vegetables like ladies finger, bottle gourd, pumpkin, ridge gourd, cucumber, bitter gourd, snake gourd etc.
- March-April is the high time for sowing of jute seeds. As weather condition is favourable, prepare land and undertake sowing of jute.
- Under prevailing weather prepare land and undertake sowing of maize and planting of 3 – 4 budded sugarcane setts.
- Soil and air temperatures are favourable for the attack of stem borer in *boro* rice. If eggs of the pests are noticed, apply ‘Darsban’ or ‘Monocrotophos’ at the rate of 2 tea spoon full per 5 litres of water in the field on a non rainy day.
- Details of crop varieties are mentioned in Annexure I.

Fishery

- Due to gradual decline of water level in ponds, fishery owners are advised to take out excess fishes from their ponds.

Animals

- Immunizations of animals against Foot and Mouth disease in cattle & buffaloes and swine-fever in pigs may be carried out during pre-monsoon season.

Arunachal Pradesh

- **Major Standing crops:** Pea (harvesting), wheat (maturity), mustard (maturity), *rabi* maize (grain formation / maturity).
- Also undertake harvesting of matured mustard, wheat, pea and *rabi* maize.
- Farmers are advised to continue land preparation and sowing of maize, summer vegetables and ginger.

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

Andhra Pradesh

- **Major Standing Crops:** sugarcane (grand growth), gram (grain maturity) and chilli (fruit development)
- As there was no significant rain during last few weeks and no significant rainfall is likely for next five days over the State and there is also persisting above normal temperature in some parts of coastal Andhra Pradesh, apply light and frequent irrigation to the crops.
- Complete transplanting of rice and undertake planting of sugarcane.
- **Poultry:** Protect the poultry birds from heat stress by the way of providing fans and foggers.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- spotted pod borer and powdery mildew in black gram, green gram and red gram, sheath blight in maize and fruit rot in chilli in Guntur;
- early shoot borer in sugarcane and blast and sheath blight in rice.
- undertake plant protection measures to control the pests and diseases.

Karnataka

- **Major Standing Crops:** Annual sugarcane (grand growth). *rabi* crops (grain development/maturity/harvesting).
- As there was no rainfall during last few weeks in the state and dry weather is likely to prevail for the next five days, apply irrigation to the crops.
- Irrigation must be given to coconut at an interval of 5-10 days depending upon the type of soil weather, which helps to control dropping of fruits. Also apply mulches in the soil to conserve moisture.
- If farmers have irrigation facility, provide irrigation to mango trees up to first week of April, then stop the irrigation. Then provide one or two irrigation during fruit development stage, which helps for increasing fruit size. To reduce flower and fruit drop in mango spray 4 ml planofix in 16 liter of water.
- Complete sowing of summer crops like water melon, snake gourd and ribbed gourd.
- After the harvest of *rabi* crops, farmers are advised to undertake summer ploughing to conserve moisture and to control weeds and soil borne pathogens.
- As temperature is rising, undertake intercultural operations and mulching with crop residues in summer crops to reduce the moisture loss (evaporation) from the soil.
- Undertake harvesting of cotton in Dharwad as dry weather conditions prevail during these days.
- Start planting of seed nuts for coconut and arecanut in nursery in Sirsi region.
- Irrigation should be continued for arecanut (10 lts/day), coconut (50 lts/day) and black pepper (2 lts/day). Irrigation should be given through drip irrigation to save water and to reduce evaporation of water and also provide the mulch around the trees/plants.
- **Plant Protection:** Weather conditions are favourable for mild incidences of:
- powdery mildew in pulse crops namely green gram, black gram and cowpea. Spray Carbendazim @ 1.0 gm or water soluble sulphur @ 3 gm per liter of water.

- leaf minor, mites and thrips in summer groundnut. Spray 1.0 ml Monocrotophos 36 S.L or 0.5 ml Phosphamidon 85 W.S.C. per litre of water.
- purple blotch in onion in Bidar region; spray Mancozeb @ 2 ml/litre of water. Also necrosis in sunflower; spray Imidachlorpid @ 0.3 ml/litre of water.

Kerala

- **Major Standing Crops:** Rice (tillering), vegetable (vegetative/flowering/fruited) and plantation crops (coconut, arecanut, pepper and cashew).
- As there was no significant rainfall during last week in most of the districts except in Idukki, Kottayam and Wayanad districts and isolated rainfall is likely to occur for the next five days, apply irrigation to the crops. Postpone irrigation in the above districts as there is sufficient moisture in the soil due to excess rainfall during last two weeks.
- Undertake sowing of puncha rice in nursery and summer vegetable crops in Malappuram, Kasargod, Kozhikode and Kannur districts.
- Intercultural operations, mulching and shading of young plants may be continued in plantation crops.
- Provide thatches to young plants of arecanut in Wayanad and coconut in Thrissur and Thiruvananthapuram to prevent from sun scorching.
- Undertake planting of ginger in Wayanad district and pepper in poly bags in Thrissur district.
- Tapping and plant protection operations may be continued in rubber. In defoliated trees, tapping may be discontinued. The basal trunk portion may be painted with lime to protect the young trees from sun scorching. The plantation may be kept clean.

Plant Protection:

- Weather conditions are favourable for the attack of
- fruit fly and powdery mildew in gourds and bacterial wilt in tomato, brinjal and chilly in Malappuram, Kasargod, Kozhikode and Kannur districts;
- spindle bug in arecanut and pollu beetle in pepper in Wayanad and aphids in cowpea in Kottayam;
- pseudo stem weevil, rhizome weevil and bunchy top in banana and tea mosquito bug in cashew.
- Undertake plant protection measures.

Tamilnadu

- **Major Standing Crops:** Special season sugarcane (cane development), cotton (picking stage). *Rabi* crops like rice, pulses, millets and oilseeds are at harvesting stage.
- As there was no rainfall during last week in the state except in Kanyakumari and Namakkal districts and mainly dry weather is likely to prevail for the next five days, apply irrigation to the crops. Postpone irrigation in the above districts as there is sufficient moisture in the soil due to excess rainfall during last two weeks.
- Undertake land preparation and nursery sowing of *navarai* rice. Use seed rate for short duration varieties @ 60 Kg/ha, medium duration varieties @ 40 Kg/ha. Treat the seeds with *Pseudomonas fluorescens* @ 10gm/kg of seeds and then with 3 packets of *Azospyrillum* per ha seed. Prepare nursery in an area 20 cents/ha.
- Undertake land preparation and sowing of maize, bitter gourd, pumpkin, snake gourd and water melon as conducive weather conditions prevail during these days.
- Complete sowing of irrigated safflower, gingelly and groundnut in Western region and undertake transplanting of vegetable crops such as bhendi, tomato, cowpea, dolichos and chilly may be taken up with irrigation facilities.
- Continue land preparation for sowing of summer irrigated crops like cotton, black gram and bajra in Thirunelveli, Tuticorin and Virudhunagar districts.
- Details of varieties are given in Annexure I.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Maharashtra

- **Major Standing Crops:** Summer rice (flowering/ grain formation in South Konkan, tillering /panicle initiation in North Konkan and tillering in East Vidarbha), summer groundnut (flowering to pod formation in Konkan and vegetative/ flowering in other divisions), summer maize (vegetative), summer sunflower (floral bud initiation/ head formation) and summer bajra (vegetative / ear head emergence in Pune, Nashik and Aurangabad divisions).
- As there was no significant rain in most of the districts during last few weeks over the State and mainly dry weather is likely to occur for next five days, apply irrigation to the standing crops.
- Apply 100 kg N / ha to sugarcane (*suru*) at 6 to 8 weeks after planting and 136 kg N, 85 kg P₂O₅ & 85 kg K₂O / ha to sugarcane (pre seasonal) at vegetative stage.
- As weather is favourable, apply a dose of Nitrogen @ 40 kg / ha to summer rice after 30 days from transplanting in East vidarbha.
- As dry weather is prevailing, apply third dose of 330 g Nitrogen (700 g urea) and 330 g Potash (550 g muriate of potash) per plant of coconut of age 5 years and more and also apply 75 g Nitrogen (160 g urea) and 75 g Potash (125 g Muriate of potash) per plant of arecanut of age 3 years and more followed by irrigation in Konkan.
- To increase pollination in sunflower use honey bee box for better development of seed or hand covered with woolen cloth may be moved 3 to 5 times on floral disc smoothly day after day, early in the morning.

Plant protection

- There is possibility of increase in infestation of tea mosquito bug on cashew in Konkan, spray Profenophos 50 EC @ 10 ml or Lambda cyhalothrin 5 EC @ 6 ml per 10 liters of water.
- Weather conditions are favorable for mild incidence of
- tikka and rust disease in groundnut in Konkan; spray Mancozeb @ 25 g per 10 liters of water.
- anthracnose on Sugarcane (*suru*) in March-April; spray Endosulfan @ 1 ml per lit of water.
- red bug on grapes in Western Maharashtra Plain Zone; spray water soluble 80% Sulphur powder @ 1.5 gm mixed in 1 liter of water or Dimethoate @ 10 ml plus water soluble Sulphur powder @ 20 gm in 10 liters of water.

Gujarat

- **Major Standing Crops:** Sugarcane (maturity / harvesting), mustard (harvesting), gram (harvesting), vegetables (vegetative / flowering / fruiting / harvesting), potato (harvesting), wheat (milk / dough), groundnut (vegetative), summer rice (tillering) and green gram, black gram, cow pea, cluster bean and pearl millet (sowing).
- As there was no significant rain during last few weeks over the State and mainly dry weather is likely to prevail for next five days, apply light and frequent irrigation to the standing crops to meet the excess demands for evapotranspiration.
- As there is no possibility of rain, undertake intercultural operation to keep the fields weed free.
- Prevailing weather is conducive for harvesting of matured crops of mustard, gram and potato.
- As dry weather is likely to prevail, apply 75 kg and 60 kg N as first split dose to okra and bajra crops respectively.
- Under prevailing weather condition farmers are advised to prepare land and undertake sowing of summer crops like green gram, black gram, sesamum, cow pea, pearl millet and summer vegetables like ladies finger, bitter gourd, bottle gourd, small gourd and cluster bean.
- Under prevailing weather condition there is chance of attack of thrips in chilli and powdery mildew in mango in North Saurashtra region. For control of thrips in chilli, spray triphose @ 15 ml / 10

litres of water. To control powdery mildew in mango spray sulphur 80 WP @ 30 gm or dinocap @ 10 ml / 10 litres of water.

- As weather condition is favourable for the attack of shoot borer in maize apply Carbofuran 3G @ 7.5 kg / ha in maize to control shoot borer.
- Make arrangements for shade with proper ventilation to protect the animals from sunlight and temperature.

Rajasthan

- **Major Standing Crops:** Wheat (grain formation/ development), mustard, gram (pod formation/ development), vegetable crops (flowering/fruitletting).
- As there was no significant rain during last few weeks and isolated rainfall is likely to occur for the next five days over the State and there is also persisting above normal temperature in some parts of the State, apply light and frequent irrigation to the crops.
- Conserve moisture in the soil where the crops are at maturity stage.
- Undertake sowing of cucurbits like bitter gourd, water melon, pumpkin (kaddu), cucumber, round gourd (tinda), ridged gourd (turai), loki, muskmelon in Bhilwara, Sirohi, Udaipur and Chittorgarh.
- Undertake sowing of okra, cucurbits, zaid pearl millet fodder, zaid sorghum fodder, zaid green gram and okra in Ajmer, Dausa, Tonk and Jaipur.
- Undertake sowing of bajra, jowar, sweet gourd, cucumber, pumpkin, bitter gourd, tinda, tomato and ladies finger in Barmer, Churu, Jalore and Jodhpur.
- Undertake sowing of moong in Sriganganagar and Hanumangarh.
- Details of varieties are given in Annexure I.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
- pod borer in gram in Alwar, Bharatpur and Karauli districts, dust 20-25 kg Malathion @ 5% or Methyl Parathion @ 2% dust before flowering and pod formation. Spray Endosulfan 35 EC or Fenitriethion 25 EC @ 1.25 l/ha in case of availability of water.
- sucking pests in vegetables in Alwar, Bharatpur and Karauli, spray 0.03% Imidacloprid to Vegetables at 10 day interval to manage the pest.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Major Standing Crops:** Sugarcane (grand growth), soyabean (pod maturity), maize (cob maturity), cotton (boll development) and vegetable crops (vegetative).
- As there was no significant rain during last few weeks and mainly dry weather is likely to prevail for next five days over the State, apply irrigation to the crops. This also prevents the crops from heat injury due to above normal temperature prevailing over the state.
- Complete sowing of summer vegetables like cucurbits, ladies finger and also cow pea.
- Complete sowing of moong and urad in Khandwa, Khargone and Harda districts and sunflower in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.
- Undertake transplanting of brinjal in Mandsaur, Ratlam, Neemuch, Shajapur, Ujjain and Rajgarh. Prepare the nursery of summer vegetables such as brinjal and chilli. Apply irrigation and nitrogen to onion.
- Undertake planting of sugarcane in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.
- Undertake sowing of summer okra, summer moong and urd in Jhabua and Dhar districts.
- Undertake sowing of moong, urad, Sunflower and vegetables like lady's finger, cow-pea and cucurbitaceous crops in Jabalpur, Katni, Panna, Rewa, Satna, Seoni and Sidhi districts.
- Undertake sowing of summer moong and urad in Sehore, Bhopal, Sagar, Vidisha, Damoh districts.
- Details of varieties are given in Annexure I.
- **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.

- To control ticks and mite in cattle, sheep and goat, apply butox / deltox @ 4 ml/ l of water on the body in Jhabua and Dhar districts.
- **Plant Protection:** Weather conditions are favourable for
- fruit borer in tomato and brinjal in Tikamgarh, Chhatrapur and Datia districts, spray Malathion 1ml in 1 litre of water.
- mealybug in mango plantation in Jhabua and Dhar districts spray Propenophos 50 EC 2.0 ml/l + Acetamiprid 0.6 gm/l of water and second spray after 15 days.
- red pumpkin beetle in cucurbits in Indore, Dewas, Mandsaur, Neemuch, Rajgarh, Ratlam, Ujjain, Shahjapur districts, apply 2 % methyl parathion dust before fruiting.
- sucking pest of summer okra in Jhabua and Dhar, spray 1 ml/l of water of Mithyl Dimetron 25 EC.
- stem borer in sugarcane in Sehore, Bhopal, Sagar, Vidisha, Damoh districts, spray foret 10 gm/hect.

Chattisgarh

- **Major Standing Crops:** Sugarcane (vegetative / maturity), wheat (milk / dough / early maturity), gram, pea, mustard, berseem, pigeon pea and linseed (maturity / harvesting), potato (maturity / harvesting), vegetables (vegetative / flowering / fruiting / harvesting), summer rice (tillering), groundnut and sunflower (vegetative / flowering), summer vegetables, sesame and green gram (sowing).
- As there was no significant rain during last few weeks over the State and mainly dry weather is likely to prevail for next five days, apply light and frequent irrigation to maintain proper soil moisture and microclimate within the crop canopy, so that the adverse effect of higher temperature or thermal stress can be minimised. The farmers who have drip irrigation system for vegetables and plantation crops should regulate the water discharge rate accordingly to maintain proper soil moisture around root zone. Mulching is also advised to minimize the evaporation losses.
- As dry weather is prevailing, it is advised to undertake intercultural operation, fertilizer application, earthing up followed by irrigation in sugarcane crop wherever the crop is at knee height stage.
- After harvest of sugarcane, clean the dry leaves and weeds from the fields to take ratoon crop; hoeing / earthing up and application of fertilizer followed by irrigation is advised.
- Under prevailing weather condition, it is advised to prepare well pulverized field and plant sugarcane setts. Intercropping of summer moong, early maturing crops or leafy vegetables can also be done for additional income.
- As weather condition is favourable, it is time for sowing of summer green gram and sesamum and also some cucurbitaceous crops, like pumpkin, bitter gourd, bottle gourd, okra etc. Hence, the sowing of these vegetables should be completed within this week.
- As summer rice is at tillering / panicle initiation stage, under prevailing weather, application of second top dressing of N is recommended at this stage.
- As weather condition is congenial, intercultural operation and weeding are advised in sunflower and groundnut. Complete final intercultural operation in groundnut within flowering stage. Fertilizer application followed by irrigation should also be done in sunflower after weeding.
- After harvesting of wheat, prepare the field well pulverized and complete the sowing of summer green gram within this month.
- Farmers are advised to start land preparation for undertaking sowing of maize during April.

Annexure I

Crop varieties

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

Himachal Pradesh

- **Ageti bhindi:** Prabhini kranti, Arka anamika.
- **French bean:** Conender.
- **Brinjal:** Arka Nidhi, PPC.
- **Capicum:** California wonder.
- **Pea:** Azad Pea-1
- **Bean:** Contender

Uttarakhand

- **Sugarcane:** Co- Pant 84211, COS-95255, COS-8436, COS-88230, COS-96268 and Moderate to late varieties like Co-Pant 97222, Co-Pant-96219, Co-Pant-84212, Co-Pant-90223.
- **Sunflower:** MSFS-8, NSFH-9, Ranjha, Heer, Badshah etc.(hybrids), Morden and Paradobic (varieties).
- **French bean:** Pant Anupama, Pant Bean-2, VL Vonibean-1 and Pusa Parvati
- **Pea:** VL Ageti, Matar-7 or Vivek Matar-10
- **Moong:** Pant Moong-2, Pant Moong-4, Pant Moong-5 & Narendra Moong-1.
- **Tomato:** VL-Tomato – 3
- **Urd:** Pant Urd – 30, Pant Urd-35 & Narendra Urd -1.
- **Fox tail millet:** VL-29, VL-21, VL Madira-172
- **Bhindi:** Pusa Savany, Parbhani Krant

Punjab

- **Sugarcane:**
Early maturing: COJ 64, COH 56 and COH 92, **mid-season:** CoJ-88 CoS-8436, and **late maturing variety:** CoJ-89 and Co-1148
- **Bhindi:** Punjab Padmini, Punjab 7, Punjab 8 and Pusa sawni

Haryana

- **Sugarcane:** COJ 64, COH 56 and COH 92.
- **Pigeon pea:** UPAS 120 and T-21.

Uttar Pradesh

- **Sunflower:** Modern, Sankar, Surya, Jwalamukhi
- **Moong:** Pant-1, pant-2, 3, Narendra-1, Malviya, jyoti

J & K

- **Potato** Kufri Jyoti and Kufri Badshah

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

Bihar

- **Summer maize:** Suwan, Ganga 11, Deoki, Shaktiman 3 and 4
- **Summer moong:** Pusa Vishal, Samrat, PS 16 and SML 668

Jharkhand

- **Summer moong:** Sunayana, Pusha baishakhi, K851

Orissa

- **Maize:** Hybrid varieties-MRM-3838, MRM-3765, Shaktiman 1, Bio 9681, Cargil 633, Deccan 105, K.H. 510 , Composite varieties – Navjot, Arun, Kiran.
- **Sesame:** Uma, Usha, Kalika, Nirmala, Prachi and Amrit.
- **Summer moong:** PDM 11, PDM 54, K 851 and TARM 1.
- **Cowpea:** Bush type- Pusa Phalguni, Pusa Komal, and runner type- American long, and Banarasi long, other improved varieties like Russian Giant, EC-4316, NP-3, C-152, UPC-286,UPC-5286 and IGFI-450 can be grown.
- **Papaya:** Honey dew, Coorg honey dew, Coimbatore-1, Coimbatore-2, Pusa delicious, Pusa Majestic, Pusa Dwarf and Pusa Giant.
- **Pineapple:** Que, queen, Simachalan and Maritius.
- **Tube rose:** Shringar, Coimbatore Single and Kolkatta Single and Suhasini double.

West Bengal

- **Sesame:** Rama, Tilottoma.
- **Green gram:** TM-99-50, PDM-54, TARM-1, 2 etc.
- **Olitorious jute:** Basudev, Navin, Chaitali.
- **Capsularis jute:** Sonali, Sabuj Sona.

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

Assam

- **Direct seeded *ahu* rice:** Luit, Kapili,disang, Pusa-2-21, Culture-1 etc.
- **Transplanted *ahu* rice:** Lachit, Chilarai, Govind, IR-50, Rachi, Jaya etc.
- **Boro rice:** Jyotiprasad, Bishnuprasad, Jaymoti, Kanaklata, Boro-1 and Boro-2.
- **Ridge Gourd:** Pusa Nasder, Surekha etc.
- **Bitter gourd:** Monsoon Monarch, Long green Monsoon, Coimbatore long etc.
- **Pumpkin:** Arka Suryyamukhi, Arka-Chandan, Large green etc.
- **Snake gourd:** Long green, Long white, Extra long etc.
- **Cucumber:** Chinese Green, Pusa Sonjog, AAUC-I, AAUC-2, AAUC-3, UC-4 etc.
- **Jute:** JTC 212, JRC 312, UPC 94.
- **Maize:** Ganga-5, Highstars, NLD, Dhawal, Navjot etc.

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

Andhra Pradesh

- **Black gram:** LBG 402, 648, 645, 685, 709 and 752.

Kerala

- **Bhindi:** Arka anamica, Arka Abhay, Susthira

Tamilnadu

- **Groundnut:** TMB-13, VRI-6 and VRI-7
- **Gingelly:** SVPR-1, TMB-5, 6 and VRI-2.
- **Rice:** ADT-36, ADT-37, ADT-39, ADT-43, ADT(R)-45, ADT(R)-47, Co-43, Co-47
- **Maize:** Co-1, Co.H.(M)-4, Co.H.(M)-5, Private Hybrids
- **Cotton:** MCU 5, SVPR 2 and LRA 5166
- **Black gram:** Co 5, KM 2
- **Bajra:** WCC 75, Co 7

WEST INDIA [GOA, MAHARASHTRA, GUJARAT, RAJASTHAN]

Gujarat

- **Green gram:** Guj. GG-3 & Guj. GG-4 etc.
- **Sesamum:** Gujarat Til -2.

Rajasthan

- **Green gram:** SML-686, Pusa Vishal, PDM-139 & G-8.
- **Groundnut:** TAG-24, SB-11, DH-86 and GG-2.
- **Bhindi:** Pusa sawani, Pusa Makhmali, Parbhani, Kranti, Arka Abhay & Arka Anamika
- **Bottle guard:** Pusa Naveen, Arka Bahar
- **Pumpkin -** Pusa Vishwas, Arka Chandan, Pusa Alankar, Arka Suryamukhi
- **Bitter guard:** Arka Harit Pusa Vishesh, Priya
- **Round gourd-** Arka tinda, Bikaneri green, Punjab-48.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Maize:** JM- 421, JM- 8, JM- 12, Chandan makka- 3, Ganga- 3, Ganga- 4 and HPQM – 1.
- **Sugarcane:** Co Jawahar-86141, Co Jawahar-86572, Co Jawahar-86600, Co 86032.
- **Summer moong:** PDM-11, JM-721, TJM-1
- **Urad:** Jawahar Urad-2, PDU-1, TPU-4