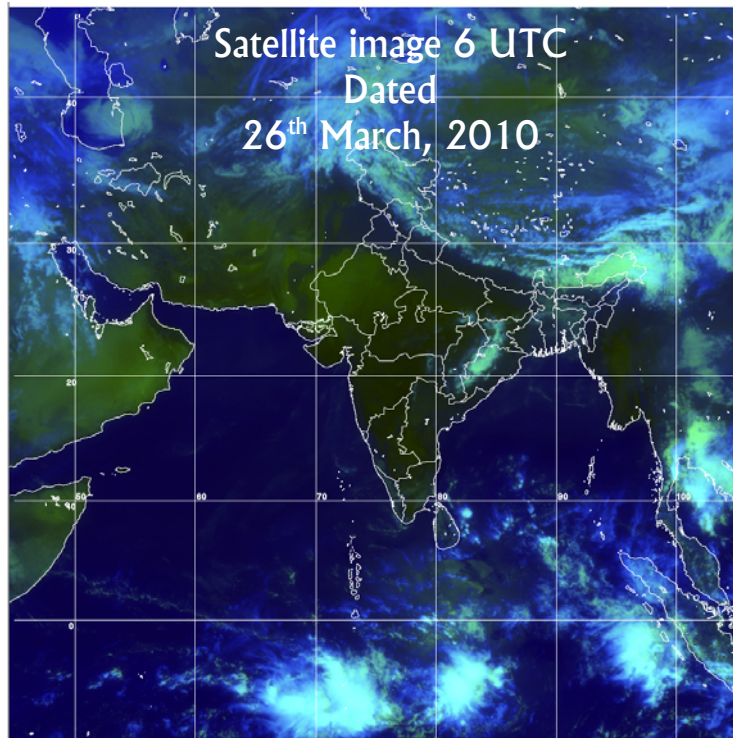




National Agromet Advisory Bulletin

Thursday, 25th March, 2010
(For the period 25th to 29th March, 2010)



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National Agrometeorological Advisory Service Centre,
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The bulletin is also displayed in the website (<http://www.imdagrimet.org>) of the Division

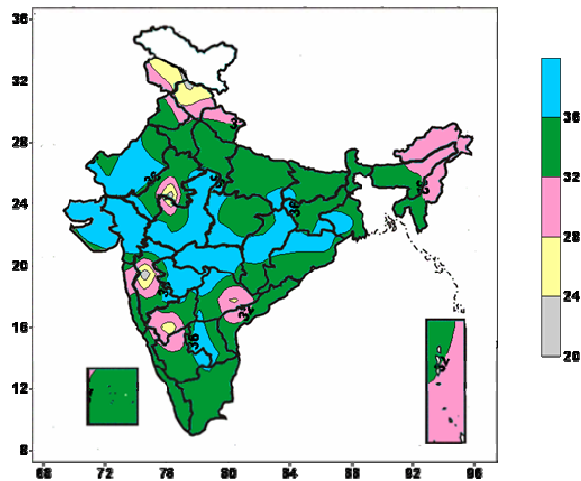
Executive Summary

Major crops in different States

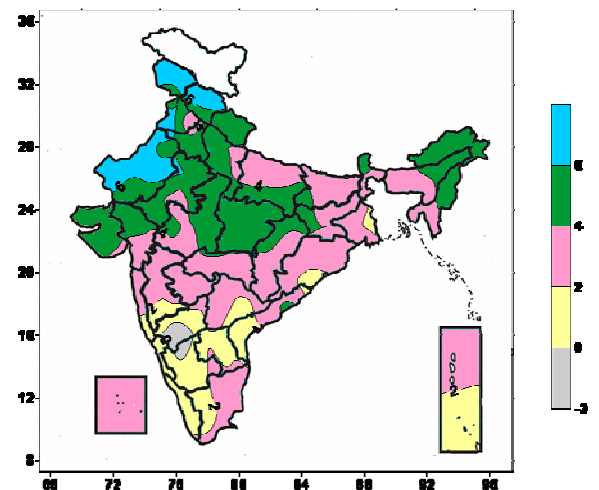
- Wheat is at grain formation stage in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, North Rajasthan, North Madhya Pradesh, Bihar, Jharkhand, at grain formation / early maturity stage in Gujarat and South Madhya Pradesh and at early maturity/maturity stage in Maharashtra, Chhattisgarh, Assam and West Bengal.
- Summer / *boro* rice is at tillering / panicle initiation / flowering stage in Jharkhand, Orissa, Chhattisgarh, West Bengal and Assam.
- Mustard is at pod formation / early maturity stage in Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Jharkhand, at early maturity / maturity stage in Rajasthan, maturity / harvesting stage in Bihar, Orissa, West Bengal and Assam.
- Potato is at tuber formation stage in Punjab and Sikkim, at maturity / harvesting stage in Bihar, West Bengal, Assam, Arunachal Pradesh and Gujarat.

Contour maps of Maximum and minimum temperatures for the week ending 24.03.10

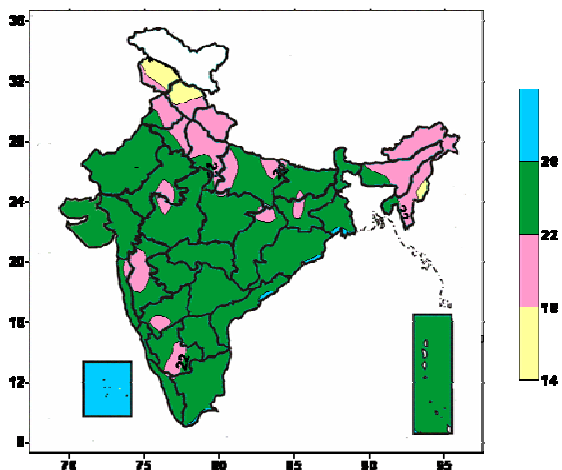
Actual Mean Maximum Temperature (°C) in India for the week ending 24.03.10



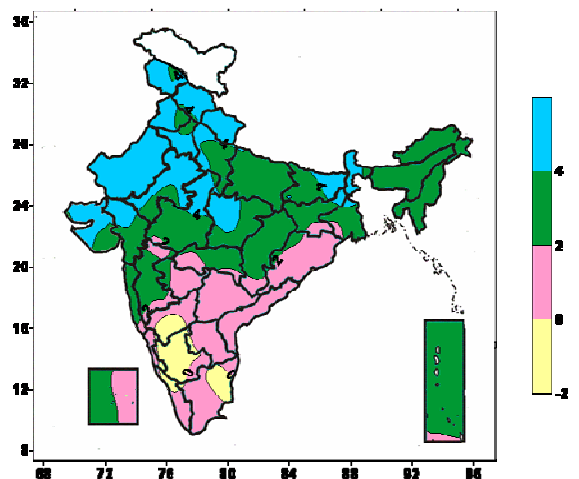
Maximum Temperature (°C) Anomaly In India for the week ending 24.03.10



Actual Mean Minimum Temperature (°C) in India for the week ending 24.03.10



Minimum Temperature (°C) Anomaly In India for the week ending 24.03.10



Past weather

- Maximum temperature anomaly was 6⁰C and above over most parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, some parts of Haryana, East Rajasthan, between 4 to 6⁰C over most parts of Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, East Rajasthan, Gujarat, Saurashtra & Kutch, East Madhya Pradesh, Arunachal Pradesh, Nagaland, Manipur, some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, West Madhya Pradesh, Bihar and Jharkhand.
- Minimum temperature anomaly was 4⁰C and above over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Punjab, Delhi, Rajasthan, Sub-Himalayan West Bengal & Sikkim, some parts of West Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Pradesh, Gujarat, Saurashtra & Kutch.

Forecast

- Rainfall is likely at many places in Arunachal Pradesh and at a few places in Assam and Meghalaya during next three days. Either isolated rain will occur or dry to mainly dry weather will prevail over remaining parts of the country.
- **Warning:** Heat wave conditions would prevail over parts of north Madhya Pradesh and south Uttar Pradesh during next 24 hours and abate thereafter. However, heat wave conditions may continue over parts of Vidarbha, Chhattisgarh, Jharkhand, Bihar, interior Orissa and Gangetic West Bengal during next 48 hours. Isolated thundersquall may occur over Arunachal Pradesh and Assam & Meghalaya during next 48 hours.

Impact of High temperature on standing crops

- As wheat is at grain formation stage in Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand and many parts of Madhya Pradesh where temperature have already reached above 36⁰C during last few days, the crop may be affected due to rise in temperature. Effects may also be noticed in other standing crops under prevailing weather condition over these regions and light and frequent irrigation may be applied.

Salient advisories

- In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers in Punjab, Haryana, Delhi, Uttar Pradesh, Bihar, Jharkhand, Madhya Pradesh, Vidarbha, Chhattisgarh, interior Orissa and Gangetic West Bengal are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
- 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 during next five days, farmers are advised to apply need based irrigation to the standing crops.

- Undertake harvesting of timely sown matured wheat crop to avoid shattering of grains in West Bengal, Assam, Maharashtra, Gujarat and Chhattishgarh.
- As the weather is warming up, farmers are advised to undertake field preparation for sowing of the pea crops in areas where snow has melted in Himachal Pradesh. Nursery sowing of capsicum, tomato, cucumber, cabbage, cauliflower and summer squash for early planting should be completed at the earliest.
- Farmers at 5000 ft hilly areas in Uttarakhand are advised to continue for sowing of potato with varieties like Kufri Jyoti, Kufri Ashok and Kufri Anand etc. and sowing of unseasonal pea with improved local varieties like VL Ageti, Matar-7 or Vivek Matar-10 in high hills.
- Undertake sowing of cucurbitaceous crops like ladies finger, summer radish, hybrid cluster bean (Pusa Komal and Pusa Sukamol), summer green gram and transplanting of chilli in Delhi.
- Continue sowing of recommended varieties of moong, urd and sunflower in Uttar Pradesh.
- Undertake sowing of early *ahu* rice in Assam with seeds of Banglami, Nilajee, Hasakumra etc. under dry conditions.

Plant protection measures:

- Weather conditions are favourable for mild incidences of powdery mildew in cauliflower in Himachal Pradesh. Farmers are advised to spray Dithane M-45 (500 g) or Redomil MZ (500 g) per 200 liters of water. If need arises repeat the spray after 12-15 days.
- Under prevailing weather, incidences of powdery mildew disease in cucurbitaceous crops and carrot have been reported in Delhi. Spraying of Mencozeb @ 2 g per litre or Carathene @ 1 ml per litre is advised.
- As temperature was high during last week, there is a possibility of attack of cut worm in sesame in West Bengal. Apply Endosulphan (1.5 ml / litre of water) or zolon (@ 2 ml / litre of water) to prevent the attack.
- Under prevailing weather condition, there is a possibility of spread of blast disease in *boro* rice in West Bengal. To prevent apply Hinosan or Kitazin. There is also a chance of attack of rice hispa. If the infestation is more than 10%, apply hostathion (1.5 ml per litre of water) or phosphamidon (0.75 ml per litre of water).

Zonewise Agromet Advisories

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

Himachal Pradesh

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State for next 24 hours and isolated rain is likely to occur thereafter.
- **Major Rabi Crops:** Wheat (grain formation), mustard, gram and lentil (pod formation) and vegetables.
- **Advisory:**
 - As dry weather prevailed during last couple of weeks over the State and no significant rain is also likely to occur during the period, apply irrigation to the crops.
 - Farmers are advised to apply third dose of Nitrogen (CAN @ 10 kg per bigha) to cole crops.
 - As the weather is warming up, the preparation for sowing of the pea crops should be started in areas where snow has melted. Procure pea seeds of variety Azad P1. For getting good crop and returns this is the best time for sowing. Use 20 kg seeds per ha after treating the seeds with Bavistin @ 2.5 g / kg seeds. Apply NPK @ 20:60:40 kg / ha. Avoid sowing in fields where pea is being taken continuously for last 2-3 years so as to avoid root rot wilt complex problem.
 - Sowing of nurseries of capsicum, tomato, cucumber, cabbage, cauliflower and summer squash for early planting should be completed at the earliest. Use only treated seeds in fumigated beds for healthy nurseries.
- **Major Seasonal Crop:** Fruit crops, floral crops and Vegetables.
- **Advisory:**
 - In apple orchard complete the pruning operations if not done earlier; whereas in orchards where pruning has been completed, apply 220 g SSP and 115 g MOP for 1 year old plant and increase the dose with age at its multiple.
 - During training and pruning cut whole branches which are affected by the Canker diseases and burn or bury it. After pruning apply the chobatia paint on each and every cuts ends.
 - Sowing of stratified seeds of apple, kanth and stone fruits in the already prepared fields in the mid hill areas is recommended. Apply nitrogen doze after melting of snow in high altitude areas.
 - Apply CAN fertilizers in the orchards @ 1400 g per plant above 10 years old plant.
- **Plant Protection:**
 - To control the root borer in apple irrigate the basins, after removing the upper soil, with 10-15 liters of the solution of Chlorpyriphos (Durmet / Dursban 20 E.C. @ 5 ml per liter of water).
 - Weather conditions are favourable for mild incidences of powdery mildew in cauliflower, spray Dithane M-45 (500 g) or Redomil MZ (500 g) per 200 liters of water. If need arises repeat the spray after 12-15 days.
 - Weather conditions are also favourable for mild incidences of Sanjose scale. To control Sanjose scale spray TSO @ 4 liters per 200 liters of water.
- **Honeybees:**
 - Place two boxes of honeybees per acre in the orchards.

Uttarakhand

- **Realised Rainfall:** No rainfall occurred in most of the districts over the State during last week.
- **Rainfall Forecast:** Mainly dry/dry weather is likely over the State during next five days.
- **Major Rabi crops:** Wheat (grain formation), mustard, lentil, gram (seed formation/maturity), pea, rajmah (pod formation).
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Adopt integrated approach for control of rats in wheat crop in grain filling stage if crop has lodged.

- Continue harvesting of matured mustard, lentil and gram crops.
- Undertake weeding and intercultural operations in late sown pea.
- Farmers are advised to continue sowing of Chiatee Dhan in nursery with improved varieties like VL-Dhan 207, VL-Dhan 208 & VL - Dhan 209 and foxtail millet with improved local varieties like VL-29, VL-21, VL Madira-172 under optimum soil moisture.
- **Major Seasonal Crops with stage:** Sugarcane (maturity / harvesting), sugarcane (new) (planting / early vegetative), cabbage, cauliflower, garlic, tomato (vegetative), french bean (early vegetative), potato (tuber formation/maturity).
- **Crop Condition:** Good.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Farmers are advised to continue sowing of tomato with improved variety like VL-Tomato – 3 and of French with improved varieties like VL Boni Bean-1, VL Bean-2, Kantender, Pant Anupama etc. Ensure proper soil moisture at the time of sowing.
 - Farmers are advised continue transplanting of tomato, brinjal and capsicum. Those farmers who have not sown brinjal in nursery are advised continue sowing with varieties like Pant Samrat, Pant Rituraj, Pant Brinjal-4, ARU-1 etc. Sprinkle water just after sowing for better seed germination and also spray water in early sown nursery of tomato and capsicum and remove weeds.
 - Undertake weeding in vegetable crops like onion and potato.
 - Continue harvesting of matured crop of sugarcane and undertake ploughing for ratoon.
 - Farmers are advised to undertake weeding in early sown garlic crop for better crop growth.
 - Undertake harvesting of berseem at regular intervals.
 - Farmers at 5000 ft hilly areas are advised to continue for sowing of potato with varieties like Kufri Jyoti, Kufri Ashok and Kufri Anand etc.
 - Undertake weeding, hoeing and mulching in cauliflower, cabbage and Shimla mirchi.
 - Continue picking of pods of vegetable pea and send them to the nearby market for selling.
 - Undertake weeding in onion and other vegetable crops. Stop irrigation in timely sown garlic crop.
 - Undertake sowing of un-seasonal pea with improved varieties local varieties like VL Ageti, Matar-7 or Vivek Matar-10 in high hills.
 - Continue harvesting of matured pea, potato, lentil and french bean.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - white rust in pea, spray 0.5 % solution of Carbendazim immediately at an interval of 10 days.
 - aphids in mustard, if the aphids are seen in 10% population, then spray 200 SL Imidachlorpid @ 3 ml per 10 litre of water.
 - powdery mildew, pod borer in gram. Spray Endosulphan 35 EC @ 400 ml per acre to control aphids.

Punjab

- **Realised Rainfall:** No rainfall occurred in most of the districts of the State.
- **Rainfall Forecast:** Dry weather is likely during next five days over the State.
- **Major Rabi Crops with stage:** Wheat (grain formation), raya, rapeseed and mustard (pod formation/maturity), potato (tuber formation).
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Provide irrigation to sunflower at two weeks interval.
 - Undertake intercultural operations in late sown wheat, raya, taramira, lentil and chickpea. Apply one irrigation to the wheat crop at grain filling stage.
 - Undertake harvesting of raya, rapeseed and mustard.

- **Major Seasonal crop with stage:** Sugarcane (early vegetative/vegetative), vegetable crops (vegetative), fruit crops
- **Crop Condition:** Good
 - **Advisory:** Apply irrigation to *autumn* planted crop as per need of intercrops and sugarcane.
 - Farmers are advised not to take two cuttings of oats where heavy infestation of poa grass is there. Undertake regular cuttings of barseem. Sow early summer and multicut fodder during this month to meet fodder scarcity during summer lean period.
 - Farmers are advised to remove the sarkanda and thatches cover from the vegetables and fruits. After removing sarkanda, earthing up of soil should be done in vegetables.
 - Undertake transplanting of vegetables like chillies with varieties from CH-3, CH-1, Punjab Guchhedar, Punjab Surakh and Punjab Lal varieties.
 - Farmers are advised to undertake transplanting of muskmelon, watermelon, bottle gourd and pumpkin. Before transplanting remove plastic bags.
 - Apply first irrigation immediately after transplanting of summer vegetables and later at 10-12 days intervals.
 - Undertake sowing of bhindi from varieties like Pusa Sawani or Punjab Padmini or Punjab 7 or 8.
 - Harvest the kinnow fruits. For the fruits intended to be consumed after more than 10 days, individual seal packing may be done. Use high density polyethylene (HDPE) bags for individual packing of kinnow fruits and seal the open end by heating or with rubber band after narrowing and twisting it.
 - Undertake planting of fruit plants like citrus, guava and ber. Apply 400-800 g urea per plant to kinnow plantations as first dose.
 - Apply second dose of nitrogen to tomato in the first fortnight of this month. Irrigate regularly after 10 - 12 days to encourage the maximum fruit setting.
 - Apply irrigation to the fruit plants of citrus, peach and plum at regular intervals. Remove dead wood in citrus before the new growth starts and apply bordeaux mixture immediately. In citrus, apply irrigation before sprouting. Loquat trees which have already set their fruits may be applied with 1-2 irrigation. Ber trees should also be irrigated to get good size of fruits.
 - Undertake planting of citrus, mango, guava, loquat and ber in already prepared pits. Grape pruning may be completed. In ber, to check the fruit fly, spray Rogor 30 EC @ 500 ml in 300 litres of water at fortnightly interval.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - yellow rust in wheat, spray the crop with tilt @ 200ml in 200 litres of water per acre.
 - flag smut in wheat, plants affected with may be rogued out and burnt to reduce the inoculum potential for next year.
 - aphid in mustard, spray the crop with 40 Actara 25 WG or 400 ml of Metasystox 25 EC Rogor 30 EC/Thiodan 35 EC/ Ekalux 25 EC or 600 ml of Dursban 20 EC in 80-125 litres of water per acre or apply 4 kg Thimet 10 G (Phorate) or 13 kg Furadan 3 G in the afternoon hours followed by light irrigation.
 - hairy caterpillar, semi looper is seen in sunflower crop, then spray 500 ml Thiodan 35 EC or 200 ml Nuvan 85 SL in 125 litres of water per acre. These insecticides will also control jassids and other sucking pests in case they appear.
 - pod borer in gram, spray Endosulphan 35 EC @ 400 ml / Monocrotophas 36SL @ 200ml or Carbaril 50WP @ 400 gram with 100 liters of water per acre.
 - alternaria blight on raya, spray the crop with 250 g/acre of Blitox 50 WP or Indofil M-45 dissolved in 100 litres of water.
 - fruit fly in ber, spray 500 ml rogor 30 EC in 300 litres of water at fortnightly interval.
 - aphids in peach, spray rogor @ 800ml in 500 litres of water to control the pest.
 - hopper in mango, spray the crop with 1 kg of Sevin or Hexavin 50 WP or Malathion 50 EC @ 800 ml in 500 litres of water.

- **Animal Husbandry:**

- Farmers are advised to provide balanced feed and fresh water. Provide balanced ration to the birds according to their requirements. Deworm the chicks regularly.
- Farmers are advised to vaccinate the animals against FMD. Vaccination may be repeated after six months.
- Farmers are advised to deworm the calves regularly with piperazine liquid (4ml/kg body weight) first at 15 days of age, then 22 days and one month upto 3 months of age and 3 monthly upto 1 year of age.
- Farmers are advised not to feed green, sprouted, soiled or rotten potatoes to dairy animals to avoid serious and fatal poisoning.
- This is the best time to raise the broiler chicks. Purchase the chicks from a reliable source. Clean and disinfect the sheds properly before the arrival of chicks. Maintain 95 ° F temperatures under the brooder during first week and reduce it by 5 °F every week. Deworm the chicks regularly and timely. Don't store the compound feed for more than 15 days. Don't use infected grains for feed formation.

Haryana

- **Realised Rainfall:** No rainfall occurred in most of the districts of the State.
- **Rainfall Forecast:** Dry weather is likely during next five days over the State.
- **Major Rabi Crops:** Wheat (grain formation), raya and mustard (pod formation/maturity), summer sunflower, maize (early vegetative)
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Farmers are advised to undertake weeding, intercultural operations in summer sunflower and maize.
 - Farmers are advised to undertake sowing of summer fodder crops like bajra, lobia, sudan, and napiar grass
 - Farmers are advised to undertake sowing of baisakhi mung varieties K851 and Pusa Baisakhi and SML 668 and pigeon pea with varieties of Manak, Paras and T-21.
- **Major Seasonal crop with stage:** Sugarcane (early vegetative/vegetative), vegetable crops (vegetative)
- **Crop Condition:** Good
- **Advisory:**
 - Apply irrigation to *autumn* planted crop as per need of intercrops and sugarcane.
 - In citrus, utmost care needs to be given to irrigation before sprouting. Loquat trees which have already set their fruits may be applied with 1-2 irrigation. Ber trees may also be watered so that fruits can develop good size. Apply one irrigation preferably after pruning to grapes.
 - Farmers are advised to undertake weeding and hoeing and intercultural operations in tomato, onion and chilli. Remove the thatch from the nursery and young fruit plants.
 - Farmers are advised to prepare the field and start sowing of cucurbits and brinjal.
 - Farmers are advised to prepare the field and start sowing of radish variety Pusa Chetki.
 - Transplant the tomato and chilly in the field. Onion and garlic crops may be regularly irrigated and the field may be kept free from weeds by regular hoeing and weeding for the proper development of the bulbs.
- **Advisory for Plant Protection:** Weather conditions are favourable for mild incidences of –
 - aphid in wheat, farmers are advised to keep a watch on the aphid build up and spray the crop with 500 ml Endosulphan 35EC or 400 ml Malathion 50 EC with 250 liter of water per acre.
 - pod borer in gram, spray Endosulphan 35 EC @ 400 ml / Monocrotophas 36SL @ 200ml or Carbaril 50WP @ 400 gram with 100 liters of water per acre.
 - alternaria blight, white rust in raya, spray the crop with 250 g Blitox or Indofil M 45 in 100 litres of water.

- aphid in mustard crop and farmers are advised to keep a watch on the aphid build up and spray the crop with 250 to 400 ml Metasystox 25 EC or Rogor 30EC in 400 litres water per acre in the afternoon. Apply light irrigation after spraying.
- hairy caterpillar/semi looper in sunflower, spray Endosulfan 35 EC @ 500 ml or Nuvan 85 SL @ 200 ml in 125 litres of water per acre. Irrigate the sunflower crop at two weeks interval.
- hopper in mango, spray the crop with 1 kg of Sevin or Hexavin 50 WP or Malathion 50 EC @ 800 ml in 500 litres of water.
- ber in fruit fly, spray Rogor 30 EC @ 500 ml in 300 litres of water at fortnightly interval.
- **Animal Husbandry:** Farmers are advised to mix 50 grams of iodized salt and 30 grams mineral mixture per day with animal feed to keep them healthy. Cracks/sore/chapped/injured teats may be treated with teat tips (Glycerin : Providine Iodine 1:4). It should be used after every milking.

Delhi

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State during the period.
- **Major Rabi Crops:** Wheat (grain formation); pea and gram (early maturity / maturity); mustard (early maturity / maturity) and vegetable crops (vegetative / flowering / fruiting / harvesting).
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions, farmers are advised to apply light and frequent irrigation to wheat wherever the crops are at milk stage to meet the excess evaporative demands.
 - Harvesting of the matured mustard is advised as clear sky is forecasted for the next five days. When 75-80 percent of the pods (Siliqua) turn parchment brown in colour, it is the right time for harvest. Farmers are advised not to allow the crop to over mature, otherwise shattering will cause loss of grains. Immediate threshing after drying is advised. Attack of painted bug will be more if crop is kept in the field for long time after harvest.
 - Direct sowing of cucurbitaceous crops like ladies finger and summer radish is advised as present temperature is suitable for germination of seeds. Procurement of seeds should be done from a certified source.
 - Sowing of hybrid cluster bean (Pusa Komal and Pusa Sukamol) can be done in present weather.
 - Sowing of summer green gram is advised where harvesting of *rabi* crop is over. Farmers are advised to procure quality seeds from certified source. Select varieties from Pusa Visal, Pusa Vaisakhi, PDM-11, SML-32. Seed treatment with crop specific *Rhizobium* culture as well as phosphorus solubilising bacteria is also advised.
 - In present weather conditions planting of sugarcane sets should be done as early as possible with assured irrigation.
 - As dry weather is prevailing over the State and is also likely to prevail, farmers are advised to apply irrigation to the standing crops.
- **Plant Protection:**
 - In present weather condition, in cucurbitaceous crop attack of red pumpkin beetle has been reported. Spraying of Carbaryl @ 1 g per litre of water is advised. Spraying should be done in between 9 to 10 am in the morning or in between 3-5 in the afternoon when the pest is active.
 - Under prevailing weather, incidences of powdery mildew disease in cucurbitaceous crops and carrot have been reported. Spraying of Mencozeb @ 2 g per litre or Carathene @ 1 ml per litre is advised.
 - Weather conditions are favourable for mild incidences of pod borer in gram, if pods are green monitoring of crop against attack of pod borer should be done; spraying of Endosulfan @ 2 ml per litre of water is advised to control pod borer population.

Uttar Pradesh

- **Realised Rainfall:** There was no significant rain in most of the districts of the State.
- **Rainfall Forecast:** Dry weather is likely over West and East Uttar Pradesh.
- **Major *rabi* crops:** Wheat (grain formation), gram, pea, and lentil (seed maturity/harvesting).
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions over some parts of south Uttar Pradesh, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Undertake weeding, hoeing in wheat. Use poisonous food containing Zinc Phosphide to control rats.
 - Continue harvesting of early varieties of mustard, alsin, pea and lentil.
 - Farmers are advised to undertake thinning, weeding and intercultural operations in early sown sunflower and maize. Continue land preparation and sowing of summer sunflower and maize under irrigated conditions.
 - Continue sowing of recommended varieties of moong, urd and sunflower after preparing the field and purification of seeds. Undertake weeding, intercultural operations and topdressing of recommended amount of nitrogen may be done in early sown moong after 15-20 days of sowing.
 - Weeding, hoeing and topdressing of recommended amount of Nitrogen in early sown summer maize may be undertaken after 25-30 days of sowing.
 - Undertake sowing of recommended varieties of urd after preparing the field and treatment of seeds with fungicides.
- **Major Seasonal Crop with stage:** Sugarcane (grand growth), winter sown sugarcane (early vegetative), vegetables (vegetative/fruitle), mango (fruit setting).
- **Crop Condition:** Good
- **Advisory**
 - Undertake weeding, intercultural operations and application of fertilizers in the standing crops like sugarcane, vegetables and mentha.
 - Undertake cutting of fodder barseem and apply irrigation at regular interval.
 - Harvesting of early varieties of potato and turmeric may be done and weeding, hoeing and irrigation as per requirement may be done.
 - Harvesting, marketing of winter vegetable like pea may be done along with watering as per requirement.
 - Farmers are advised to stop irrigation in early varieties garlic before 20 days of harvesting and irrigation as per requirement may be applied in late sown garlic.
 - Undertake transplanting the seedlings of summer vegetable crops in the main field. Complete sowing of *zaid* ladyfinger at the earliest.
 - Weeding, hoeing and application of 30 kg Nitrogen /hectare may be undertaken in onion.
 - Apply top dressing of Nitrogen in banana and irrigation at 10-12 days interval may be applied.
 - Undertake harvesting of pea as per maturity.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
 - sawfly in mustard, spray the solution of Endosulphon 35 EC @ 1.25 litre per hectare in 600 – 800 litre of water.
 - canker in lemon, spray the solution of Blitox 3-4 gram/litre of water.
 - fruit borer in gram spray the solution of Trichogramma card or Endosulphon 1.25 litre per hectare dissolving in necessary amount of water.
 - fruit borer in late sown varieties of lentil, spray the solution of Endosulphon 35 EC @ 1.25 litre/ hectare dissolving in 750litre.
 - smut in wheat, if the earheads are affected such ear heads may be buried in ground or burn them.
 - thrips in late sown garlic, spray Methyl parathion 50 EC at recommended rate to control the pest.
 - leaf spot in onion, spray Mancozeb @ 2gm/litre to control the disease.

J & K

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely over the State for next 24 hours and isolated rain is likely to occur thereafter.
- **Major Rabi crops:** Wheat, barley (grain formation), brown sarson (seed formation), vegetable crops (sowing / vegetative / flowering / fruiting / harvesting).
- **Advisory:**
 - As there was no significant rainfall during last week and no significant rainfall is likely during next five days, farmers are advised to apply irrigation to wheat wherever the crops are at milk stage.
 - Taking the advantage of dry weather harvest the mustard crop if pods turn straw coloured and after harvesting keep the bundles in stack for 7-10 days before threshing.
 - Under prevailing weather condition farmers can undertake sowing of summer pulses like mash (var. Mash Pant, U-19, T-9) and moong (var. PDM-54, PS-16, PS-17, ML-131) in those areas where harvesting of early sown mustard and potato crop has already been done. But before sowing land should be properly prepared by giving 1-2 ploughing with disc harrow / desi plough followed by planking in order to maintain soil moisture condition.
 - Farmers can also undertake sowing of Jowar (var. Ujjain, Swarna-413, M.P.Chari & Pioneer Jowar) during these days.
 - Sowing of summer vegetables should be done without any further delay. This is the optimum time for the sowing of okra, cucumber, beans, muskmelon, watermelon, round gourd, bottle gourd, sponge gourd and bitter gourd. Transplanting of tomato, brinjal and chillies from nursery to field can also be done during this period.
 - Due to the increase in temperatures farmers are advised to irrigate guava, loquat, litchi crop and vegetable crops.
 - Sow seeds of different fruits. Transplant suckers / seedlings of different fruit plants.
 - Provide pollinizers in the orchards. Prune fruit trees if not pruned earlier.
 - Grafting in apple, pear, plum, grapes etc. may be started. Paint wounds where wound exceeds 2 cm with white lead paint. Scrape dead bark and lichens from trees with bark scrapers.
- **Plant Protection:**
 - Weather is congenial for aphid and thrips attack in onion crop. Under such situation spray the crop with Endosulphan @ 0.07% or Metasystox @ 0.03% or Malathion @ 0.05%.
- **Apiculture:** Artificial feeding of the bee colonies with sugar: water solution in 1:1 ratio is recommended. Provide ample space for newly mated queen for egg laying.

Rajasthan

- **Realised Rainfall:** Mainly dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Crop with stage:** wheat (grain formation), gram and mustard (early maturity / maturity) vegetable crops (flowering / fruiting / harvesting).
- **Crop Condition:** Good.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Undertake harvesting of matured mustard. After harvesting of pods, mustard plant left over in the field provide hibernation site to painted bug during hot summer. Farmers are advised to plough the field deep in hot summer to destroy the various stages of pest under heat.
 - Stop irrigation 10 days before harvesting of potato. Dig using potato digger after drying of leaves and hardening of skin to minimise labour cost and cut injury to tubers.

- This is right time for preparing the nursery for early summer brinjal & chilli. 500 g & 1.5 kg seeds of brinjal & chilli are required for one hectare. Treat the seeds with Thiram or Captan @ 2 g / kg seeds before sowing into nursery.
- Undertake transplanting of tomato with 15 cm long seedling of tomato at 60 cm x 45cm spacing in ridges during evening time to avoid transplanting shock. Apply light irrigation after transplanting.
- Undertake sowing of okra. Use 20kg/ha seed of okra for sowing. Soak seed for 24 hrs in water for quick and better germination.
- Farmers are also advised for sowing of summer okra. Select varieties from Pusa sawani, Pusa Makhmali, Parbhani Kranti, Arka Abhay and Arka Anamika. Use 20 kg seeds per hectare. Treat seeds with 1 g Carbendizim & 3 g Thiram per kg of seeds.
- This is the right time of sowing cucurbitaceous vegetables like melon, bottlegourd, ridgegourd, bittergourd, pumpkin and smoothgourd etc.
- Continue transplanting of vegetable seedlings in the main field.
- Farmers are also advised to go for planting of sugarcane and zaid maize, ground nut and moong.
- Suitable time for raising nursery of monsoon season brinjal. Use 400-500 g/ha seed for raising nursery and also for sowing cucurbitaceae vegetable like melon, bottle gourd ridgegourd, bitter gourd kg/ha or 0.5g /litre Acephate 75SP during morning or evening hour at 15 days interval.
- Deep summer ploughing is recommended just after harvesting of *rabi* crops to control insects, disease, nematode attack. This will also help in conserving rainfall insitu.
- **Animal Husbandry:**
 - Deworming is recommended in livestock during this period.
- **Plant Protection:**
 - sucking pests in *zaid* green gram, spray Dimethoate 1ml/lit at 30-45 days to control the sucking insects which spread the yellow mosaic disease.
 - tomato & brinjal crops are likely to be affected by fruit borer. To control this pest, spray Endosulfan 35 EC or Malathion 50 EC @ 1 ml per litre of water or spray *Bacillus thuringiensis* Kastki (Dypel-8 L) @ 1 litre water with Methomil 40 SP @ 600 gm per hectare. Repeat spray after 15 days if problem persists.
 - termite attack in onion, spray Endosulfan 35 EC or Chlorpyrifos 25 EC @ 4 litre per hectare.
 - powdery mildew disease in mango due to rise in temperature, this leads to flower and fruit drop in mango. Spray Karathane @ 1ml/l water to manage the disease.
 - termite attack in standing onion, give Endosulfan 35 EC or Chlorpyrifos 25 EC @ 4 litre per hectare.
 - Early sown summer cucurbits are likely to be affected by red pumpkin beetle. Broadcast carbaryl 5% @ 20 kg/ha or spray Asiphet 75 S.P. 0.5 gram per litre water.
 - Weather conditions are favourable for
 - aphids in maize, spray Methyl Demeton 25 E.C. @ 1 lit/ha or Phosphomidan 85 WSC @ 300 ml/ha at the time of aphid infestation on tassel.
 - powdery mildew disease in pea, spray 2g/litre wettable Sulphur or 1ml/litre Kerathane.

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

Bihar

- **Realised Rainfall:** There was no rainfall in most of the districts of the State during last week.
- **Rainfall Forecast:** Dry weather is likely to occur over the State for next five days.
- **Major Rabi Crops:** Wheat (grain development), maize (flowering), potato (maturity/harvesting), gram, pea, and lentil (pod formation/maturity), mustard(pod maturity/harvesting), summer maize, moong and sunflower(early vegetative)
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions over some parts of the State, farmers are advised to apply light and frequent irrigation to the standing *rabi* crops.
 - Farmers advised to undertake harvesting of matured crops of wheat, potato and tobacco.
 - Farmers advised to undertake harvesting of the matured mustard when 75-80 percent of the pods (siliqua) turn parchment brown in colour. Farmers are advised not to allow the crop to over mature to

avoid shattering that will cause loss of grains. Immediate threshing after drying is advised. Remove the mustard plants after harvest of pods to avoid painted bug.

- Prepare the field and undertake sowing of summer maize, moong and sunflower
- Farmers are advised to undertake harvesting of early matured rapeseed and mustard, lentil, gram, peas and lathyrus. Threshing of the harvested pulses and oilseed crops may be undertaken as soon as possible and sun dry the seed, store them in safe place.
- Farmers are advised to provide irrigation and intercultural operations in summer vegetable crops like tomato, brinjal, bhindi, bitter gourd, cucumber, sponge gourd, radish and chillies.
- **Major Seasonal Crop with stage:** Sugarcane (grand growth) and vegetables (vegetative / fruiting), mango (fruit setting).

- **Crop Condition:** Good.

- **Advisory**

- Farmers are advised to undertake planting of spring sugarcane with recommended varieties like BO130, BO138, BO137, BO136, BO145, COP 9206 and COP 9301 etc.
- Prepare the field and undertake sowing of spring sugarcane and fodder crops.
- Undertake weeding & intercultural practices in vegetable crops like tomato, brinjal, bhindi, bitter gourd, cucumber, sponge gourd, radish and chillies.
- Apply irrigation in onion crop as per moisture condition in the field.
- Sowing of garlic may be done after purification of seeds at the seed rate of 500- 700 kg seeds/ hectare at distance 15 x 7.5 cm.
- Undertake weeding, intercultural operations and application of fertilizers in the standing crops like sugarcane, vegetables and mentha.
- Apply irrigation and apply top dressing of urea in already sown vegetable crops like tomato, brinjal, cauliflower and cabbage etc.
- Apply irrigation to newly planted fruits trees and avoid irrigation during flowering stage.
- Undertake direct sowing of cucurbitaceous crop, lady's finger, french bean, summer radish as temperature is suitable for germination of seeds.
- Transplanting of young seedlings of tomato, chilli and cole crop. Transplanting should be done in the evening.
- Undertake sowing of maize variety like African Tall and hybrid cluster bean like Pusa Komal, Pusa Sukamol. Sowing of hybrid cultivar of baby corn HM-4 may also be done.
- Undertake intercultural operations in onion for control of weeds and better growth of onion seedlings.
- Farmers are advised to complete sowing of summer maize, moong, kalai and sunflower. Sowing of summer paddy seed in the nursery for raising seedlings may be completed. Before sowing the seed may be treated with fungicide and the pulse crop seed should also be treated with Rhizobium culture before sowing.

- **Plant Protection:**

- Weather conditions are favourable for mild incidences of
 - stem borer and pod borer in late sown gram. Spray Endosulphan (35 EC) @1.5 ml/liter of water for control of stem borer, pod borer in late sown gram at 10-15 days of intervals.
 - aphids in late sown rape seed and mustard. Farmers are advised to spray Monocrotophos @ 1.0 ml / liter of water or Endosulphan @ 2.0 ml / liter of water.
 - powdery mildew in peas, apply Sulfex @ 2 g / liter of water or Bavistin @ 1 g / liter of water or Karathane @ 1 g / liter of water for control of the disease.
 - mealy bug and ear rotting in mango, ploughing of mango orchard is advised to control emerging mango mealy bug nymphs. Wrapping of plastic sheets around mango trunk to prevent climbing of young mealy bugs may be done. Apply grease to seal any cracks in the polythene sheets. Spray M-45 or Dithane Z-78 @ 2.0 ml dissolve in per liter of water to prevent ear rotting (blackish panicles). It is advised to take precaution in spraying of insecticides over mango trees to avoid damage to pollinating insects as this time pollination is taking place.

- aphids in vegetable crops. In the present temperature conditions, aphid population will gradually diminish. Control measures may be initiated if pest population is high. Spraying of Imidacloprid @ 0.25 to 0.5 ml per litre of water in vegetable crops may be undertaken after harvesting of matured vegetables. In vegetable crops a waiting period of one week should be followed after spraying.
- red pumpkin beetle in cucurbitaceous crop. Spraying of Carbaryl @ 1 gram per litre of water is advised.
- Installation of bird perches in tomato crop is advised to control fruit borer insect. Hand picking of damaged fruit and burying are advised. Installation of pheromone trap @ 2-3 traps per acre of crop field is advised for monitoring the tomato fruit borer.
- shoot and fruit borer in brinjal. Collect the infested fruits and shoots and burying these are advised. If pest population is high, spraying of Spinosad 12% SC @ 1 ml per four litre of water is advised.

Jharkhand

- **Realised Rainfall:** There was no rainfall in most of the districts of the State during last week.
- **Rainfall Forecast:** Dry/mainly dry weather is likely over the State.
- **Major Rabi Crops:** Wheat (grain formation), rai, *toria*, gram, mustard (pod formation/maturity), peas (pod formation), arhar (pod formation/maturity).
- **Crop Condition:** Good.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions over some parts of the State, farmers are advised to apply light and frequent irrigation to the standing *rabi* crops like maize and wheat to meet the excess evaporative demands.
 - Apply second irrigation at pod formation stage in mustard. During grain formation, farmers are suggested to give irrigation as per need and spray with salicylic acid @ 1 gm /10 litre of water.
 - Wheat crop is in grain filling stage. Farmers are advised to maintain moisture level in the soil by giving required irrigation.
 - Farmers are advised to maintain the water level in summer rice. Apply top dressing urea 18 kg/ acre at 28 DAS. Undertake weeding and interculturing as and when required to keep the crop weed free.
 - Undertake harvesting of matured early sown *rabi* crops.
 - Farmers who have facilities for one or two irrigation may undertake sowing of summer moong after harvesting of *rabi* crop.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative / grand growth), vegetables (vegetative).
- **Crop Condition:** Good
- **Advisory:**
 - Farmers are advised to maintain moisture level of soil in pea. If the age of plant is more than 30 to 35 days then twigging may be done to generate extra income. Twigging is only done in those fields where moisture level is sufficient and growth of crop is sufficient.
 - Give irrigation and undertake intercultural operation in tomato crops.
 - Farmers are advised to spray with NAA @ 1 gram/litre of water for vegetables crop to increase the growth of plant and to prevent the dropping of flower and increase the growth of fruits.
 - Farmers are advised to spray ammonium molybdate @ 1 g / litre of water in cauliflower to manage the deficiency of molybdenum and to maintain the quality of cauliflower. Apply required irrigation in morning. If flower discoloration is observed due to deficiency of boron, spray borax @ 5gm/litre of water. Farmers are advised to apply irrigation in potato at 10 to 15 days interval. Stop irrigation 10 – 15 days before harvesting. After harvesting of matured potato, farmers are advised to go for onion crop. Select the varieties of onion from Pusa Ratnar, Pusa Red, N53, Arka Niketan, etc.
 - Farmers are advised to spray urea at 25 to 30 days after sowing and other dose at 60 days after sowing. Brinjal sown in the month of December may be applied urea only when the moisture is available in the soil. According to need irrigation may be given at the interval of 10 to 15 days.

- Farmers are advised to undertake sowing of onion after harvesting early potato. Select the varieties from Pusa Ratnar, Pusa Red, N53 and Arka Niketan etc.
- Farmers who seeded their crops in early November may apply urea @ 50kg /acre in potato. Farmers are suggested to give irrigation at the interval of 10 days regularly. If potato is at maturity, irrigation may be stopped and digging of potato is done accordingly. After harvesting of potato, farmers are advised to go for onion crop. Select varieties of onion like Pusa Ratnar, Pusa Red, N53, Arka Niketan etc.
- **Plant Protection:** Weather conditions are favourable for mild incidences of
 - Mosaic disease and aphids in tomato. To control aphid farmers are suggested to spray with nemerin @ 2 ml/liter of water.
 - pod borer and powdery mildew in early pea. To prevent the infestation of irrigate the field with thimet @ 4 kg/acre. Spray Karathane @ 1 ml / litre of water or sulfex @ 3 g / litre of water.
 - stem borer in brinjal, cut it down and bury in soil. To prevent the plant from fruit and shoot borer spray Imidochloropid 1.0 ml / liter of water or install 12 to 15 pheromone traps / hectare.
 - white fly and leaf hopper in early sown vegetables, spray monocrotophos 40 EC @ 1.5 ml / litre of water.
 - mosaic disease in tomato, treat the roots of tomato plant by Imidachlopid 0.25%.
 - blight disease in linseed, spray Mancozeb @ 2 ml / litre of water.
 - fruit and shoot borer in brinjal, spray Imidachloropid 1.0 ml/liter of water or install 12 to 15 pheromone trap/hectare.
 - white fly, leaf hopper in early sown summer vegetables, spraying of Monocrotophos 40 EC @ 1.5 ml/litre of water may be done.
 - powdery mildew in pea, spray Karathane @ 1ml/litre of water or sulfex 3gm/litre of water as a preventive measure. During flowering to prevent the attack of fruit borer, spray carboryl @ 2 g/litre of water.

Orissa

- **Realised Rainfall:** There was rainfall in Jajpur and Keonjhar districts of the State and no significant rainfall in remaining districts during last week.
- **Rainfall Forecast:** Mainly dry weather is likely during next 24 hours and isolated rainfall is likely thereafter over the State.
- **Major rabi Crops:** wheat (grain formation), pulses (pod formation/maturity), sunflower, groundnut (vegetative), mustard (maturity/harvesting), summer rice(active tillering/panicle initiation).
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions over some parts of Interior Orissa, farmers are advised to apply light and frequent irrigation to the standing *rabi* crops.
 - Undertake weeding and intercultural operations in *rabi* pulses like lentil, field pea and gram.
 - Second top dressing with 25% N (32 kg urea/ha) and 50% K (25kg MOP/ha) may be done in summer rice during panicle initiation stage. Drain out water from the field just before fertilizer application and water depth of 5cm should be maintained 48 hours after fertilizer application.
 - Undertake weeding in early sown pulses. To control grass weeds in the field, apply targa super (Quizalofop ethyl) @ 2ml/l of water at 10-15 days after sowing. Irrigation may be provided at the critical stages like flowering, pod formation and grain fillings stage of the crop.
 - Undertake intercultural operations, top dressing and earthing up followed by light irrigation in sunflower. Apply gypsum @ 2.5 q/ha to sunflower, if it is not applied at the time of sowing.
 - Undertake harvesting of matured crops of mustard. The crop should be harvested when the siliqua becomes yellow and leaves start shedding. Harvesting may be done during morning hours in order to reduce bursting of siliqua. The seeds may be dried in hot sun for 2-3 days before storing.
 - Undertake sowing of summer green gram and black gram with seed treatment of Bavistin @ 2 gm per kg of seed followed by rhizobium culture @ 200 gm per 10 kg of seed.
- **Major Seasonal Crop with stage:** Sugarcane (early vegetative), vegetables (fruiting / harvesting), onion (vegetative).

- **Crop Condition: Good**
- **Advisory:**
 - Undertake weeding, intercultural operations and application of fertilizers in vegetables.
 - Hoeing and weeding may be carried out in early planted sugarcane and apply 50 kg of Nitrogen followed by earthing up. In 45 days old ratoon crops, apply 40 kg Nitrogen followed by irrigation.
 - This is the ideal time for planting of marigold. Undertake planting with seedlings of Ceracol variety may be planted at 30 x 30 cm spacing and fertilizer @ 40:80:80 kg N-P₂O₅- K₂O / acre may be applied at the time of land preparation.
 - It is the right time for sowing of cucurbits, cucumber and ladies finger. Farmers are advised to undertake field preparation and undertake sowing.
 - Farmers are advised to undertake weeding in early sown groundnut and apply gypsum @ 250 kg/ha.
 - Apply pot watering in cashew @ 20-25 litres of water per plant at 15 days interval for freshly planted grafts of cashew nut. Mulching of dried leaves at the base of freshly planted graft may be done to reduce evaporation.
 - Apply thick mulch with coconut leaves (15 nos) or any other material in the basin area (18 m radius) of coconut to conserve moisture.
 - Apply mulching to maintain high moisture status in the soil in fruit crops. Use sprinkler irrigation practices wherever possible in the event of limited water availability particularly for commercial crops including fruit orchards and widely spaced vegetables.
- **Plant protection:** Weather conditions are favourable for mild incidences of
 - Stem borer, blast and bacterial leaf blight in summer rice. Spray Nuvacron or Chloropyriphos @ 400 ml/acre or Caldan @ 400 gm/acre in 200 litres of water to control stem borer, Beam @ 1 gm/l or Tricyclazole @0.5g/l or Biomycin @ 2 ml/litre of water to control blast and Plantomycin @ 1.5 gm + Copper Oxychloride @ 2 gm/litre of water.
 - leaf blight and stem rot in betel vine. Soil drenching with Bordeaux mixture @ 1% or foliar spray @ 0.5% should be done.
 - red hairy caterpillar, yellow vein mosaic and spodoptera in summer pulses. Apply 10 kg Chloropyriphos powder at evening time or spray 400 ml 20 EC Chloropyriphos per acre. Spray Endosulfan or Methyl Parathion @ 400 ml/acre or Caldan 200 gm/acre in 200 litre of water to control the insect vector spreading yellow vein mosaic virus.
 - wilt in tomato and brinjal. Undertake soil drenching at the base of the plant with 2g Bavistin and 1g Plantomycin or Streptocycline @ 0.1g /l water.
 - fruit borer in tomato, spray Endosulfan @ 2ml/litre of water.
 - downey mildew in cucurbits, spray Indophil-M-45 @ 3 ml per litre of water.
 - thrips in groundnut, spray Dimethoate @ 400 ml or Imidachloprid @ 50 ml in 200 litre water per acre.
 - thrips and mites in chilli, spray Rogor or Metasystox @ 2 ml or Sulfex WP @ 4 gm/litre of water.
 - spodoptera in cabbage and cauliflower. Farmers are advised to go for alternate spraying of B.T product 1 kg or 250 LE SLNPV/acre at weekly interval or use 4 Trichogramma cards per acre.
 - aphids in pulses and mustard, apply 4 ml Neem based pesticide or 2 ml Metasystox per each litre of water to control aphids.
 - leaf eating caterpillar in vegetable crops, spray Endosulfan @ 2 ml/l to control.
 - diamond back moth, saw fly and borer in cole crops, spray Malathion @ 2 ml / litre of water.
 - tikka disease in groundnut, spray Saaf / Sixer @ 2 g / litre of water.
 - fruit and shoot borer in brinjal, spray, Spintor @ 3.5ml in 15 litre of water.
- **Animal Husbandry:** calf and kids are susceptible to respiratory infection mostly pneumonia. Provide warm and comfortable housing to animals. Now-a-days, poultry birds are prone to respiratory infection and CRD (Chronic Respiratory Diseases). Provide comfortable warm housing and good ventilation. In case of disease outbreak, therapeutic measures are to be taken up. Vaccination for FMD (Foot and Mouth Disease) of animals is to be taken up. In case of disease outbreak, strict isolation of affected animals should be done.

West Bengal

- **Realised Rainfall:** No significant rain occurred in most of the districts of the State during last week.
- **Rainfall Forecast:** Isolated rain / thundershower is likely to occur over Sub Himalayan West Bengal during next 24 hours and mainly dry weather will prevail thereafter. Whereas, mainly dry weather is likely to prevail over Gangetic West Bengal during next 48 hours alongwith heat wave condition and isolated rain is likely to occur thereafter.
- **Major Crops:** *Boro* rice, vegetables, mustard.
- **Crop Stage:** Sugarcane (vegetative), wheat (early maturity / maturity), vegetable crops (vegetative / flowering / fruiting / harvesting), mustard (maturity / harvesting), *boro* rice (tillering / panicle initiation / flowering), potato (maturity / harvesting).
- **Crop Condition:** Good.
- **Advisory:**
 - As there was no significant rain during last week and no significant rain is likely to occur over the State, apply irrigation to sugarcane, vegetables and other standing crops in Sub Himalayan West Bengal and apply light and frequent irrigation in Gangetic West Bengal in view of expected heat wave condition.
 - Top dress the *boro* rice at 6 weeks after transplanting or just before flowering @ 15 kg urea per bigha. In case of zinc deficiency of soil apply zinc sulphate @ 4 kg per bigha. At the time of topdressing it is better to keep the field dry. Mix the fertilizer thoroughly with the soil after application. After 48 hours of fertilizer application, apply irrigation to obtain better fertilizer use efficiency and maintain 4 – 5 cm water in the field.
 - As dry weather is likely to prevail at most of the districts of the State, undertake harvesting of already matured crops of wheat.
 - Complete harvesting of mustard taking the advantage of dry weather condition.
 - Earthing up may be done in maize followed by irrigation.
 - Prepare well drained sandy to heavy loam soil and complete green gram sowing. The recommended varieties are Sonali (B-1), Panna (B-105), Pusa Baishakhi, TM-99-50, PDM-11, TARM-1, 2 (resistant to powdery mildew) and Samrat. The seed rate is 2.5-3 kg when sown in broadcasting and recommended fertilizer dose is 4-5 kg urea and 35-40 kg SSP / bigha.
 - Undertake sowing the seeds of different summer vegetables such as ladies finger, spinach, various leafy vegetables etc. under assured irrigation. Sow seedlings of brinjal and chili in the main field.
 - As this is the proper time, undertake the land preparation for jute. At the time of land preparation apply 1.5 to 2 carts full of compost manure per bigha of land. Collect improved varieties of seeds like Chaitali, Basudev, Naveen, Sonali, Sobuj Sona etc.
 - Considering the soil moisture condition, start land preparation for seed bed of *aus* rice.
 - Complete harvesting of potato.
- **Plant protection:**
 - Under prevailing weather condition, there is a possibility of spread of blast disease in *boro* rice. To prevent apply Hinosan or Kitazin. There is also a chance of attack of rice hispa. If the infestation is more than 10%, apply hostathion (1.5 ml per litre of water) or phosphamidon (0.75 ml per litre of water).
 - As temperature was high during last week, there is a possibility of attack of cut worm in sesame. Apply Endosulphan (1.5 ml / litre of water) or zolon (@ 2 ml / litre of water) to prevent the attack.

Sikkim

- **Realised Rainfall:** Some rain occurred over the State during last week.
- **Rainfall Forecast:** Isolated rain is likely to occur over the State during next 24 hours and mainly dry weather is likely to prevail thereafter.

Major crops: High hills (1500 to 2000 m): Large Cardamom: vegetative / germination; **Wheat:** maturity / harvesting; **Seed Potato:** vegetative; **Kharif Vegetable:** sowing / nursery sowing. **(b) Medium hills (1000 to 1500 m): Large Cardamom:** vegetative / germination; **Orange:** orchard trees / early flowering; **Rabi Potatoes:** tuberization; **Mustard:** harvesting; **Wheat:** harvesting; **Maize:** early vegetative / vegetative; **Kharif Vegetable:** sowing / nursery sowing; **Ginger:** land preparation. **(c) Low Hills (Below 1000 m):**

Large Cardamom: vegetative / germination; **Rabi Potatoes:** tuberization; **Mustard:** harvesting; **Wheat:** grain formation / maturity; **Maize:** early vegetative / vegetative; **Kharif Vegetables:** sowing / nursery sowing; **Ginger:** land preparation.

- **Crop Condition:** Good.
 - **Advisory:**
 - As no significant rainfall is likely to occur, farmers are advised to apply irrigation to large cardamom, potato and maize.
 - Undertake weeding to keep the field weed free.
 - Land preparation should be started for sowing of *kharif* maize. Line sowing must be done as per usual practice as soon as there is sufficient rainfall and recommended FYM/Compost should be used in the field before sowing.
 - Undertake planting of ginger during this period. The terrace where the crop has not been sown for the last 3-4 years should be selected.
- **Plant protection:**
 - 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

- **Realised Rainfall:** No significant rain occurred over the State during last week.
- **Rainfall Forecast:** Rain is likely to occur at a few places over the State during the period.
- **Major Rabi Crops:** Wheat (early maturity / maturity), potato (harvesting), pea, arhar (maturity / harvesting) and mustard (maturity / harvesting), vegetables (vegetative / flowering / fruiting / harvesting), *boro* rice (tillering / panicle initiation / flowering), early *ahu* rice (seedling / transplanting).
- **Advisory:**
 - As there is possibility of rain, undertake harvesting of already matured crops of wheat, mustard, potato, mustard and Rajmah immediately before onset of rain.
 - Top dress *boro* rice with 3 kg urea per bigha before flowering. Maintain 5 cm depth of standing water in the *boro* rice field.
 - For raising seedlings of regular *ahu* rice, nursery beds of size 10 m long and 1.25 m wide should be prepared by puddling.
 - Sow seeds of Banglami, Nilajee, Hasakumra etc. in well pulverized field under dry conditions for cultivation of direct seeded early *ahu* rice. Apply P and K @ 9 kg and 2 kg / bigha. Do not apply N as basal.
 - For sowing the seeds of mesta in April, 5-6 times ploughing and laddering should be done within March.
 - Undertake harvesting of pea and arhar crops immediately in view of expected rain if 75-80% of pods turned yellow.
 - Undertake sowing of *Bao* rice seeds within March to April. The recommended varieties of *Bao* rice for Nagaon and Morigaon districts are Maguri, Kekua Bao, Negheri Bao, Tara Bao etc.
 - Sowing of maize should be completed during March-April. Select high loamy land and varieties like Ganga-5, Highstars, NLD, Dhawal, Navjot, Kissan, Vijay etc.
 - Land preparation for summer vegetables like ladies finger, cucumber, ridge gourd, brinjal, cowpea etc. should be undertaken during this period. Yellow Vain Mosaic Virus resistant varieties such as Parvani Kranti, Arka Anamica etc. should be selected for sowing of ladies finger. Cucumber varieties like Chinese green, Apple cucumber, Pusa sanjog etc. may be sown at 120 cm x 150 cm spacing.
 - Farmers are advised to collect the high yielding varieties such as Pratap (SG-1), T-44, Kopergaon, AAU-34, AAU-39, K-851 and ML-55 for green gram and Pant-U-19, T-9, UG-157 etc. for black gram. 3 kg seeds / bigha are required for line sowing in the spacing of 30 cm (row to row) and 10 cm (plant to plant).

- Farmers may select low lying fertile soils for sowing of recommended capsularis jute varieties like JTC 212, JRC-321, UPC-94 etc. For medium land situation JRC-7447, JRC-212 etc. are best varieties. Application of BHC 10% dust at the time of land preparation is necessary to protect the seeds from soil insects. At the time of last tillage, apply 20 kg SSP, 7 kg MOP per bigha of land. Seed requirement for line sowing is 1 kg / bigha.
- Farmers can plant the high yielding varieties of ginger (Nadia, Karkai, Maran, Jorhat, chaina etc.) & turmeric (Shillong type, CL-24, PTS-38, PCT-13, VK-145, etc.) up to April. Select high loamy land for cultivation of these crops.
- Plant perennial grass such as Guinea and Napier for fodder crops.
- **Major Seasonal Crop:** sugarcane (planting), fruit crops.
- **Crop Condition:** Good.
- **Advisory:**
 - Planting of sugarcane can be undertaken with high yielding varieties such as Dhansiri, Kalang, Luhit, CO-Jor-1, CO-Jor-2 etc. Before planting, setts should be treated with 0.2% solution of Captan.
 - Farmers are advised to collect the suitable seedlings of banana as the ideal time of planting of banana is April. Take the sword sucker of dwarf variety (Jahaji), medium tall variety (Chenichampa, Malbhog, Barjahaji) for planting. Size of the pit should be 2.1 m X 2.1 m. Fertilizer should be applied as 12 kg FYM, 110 g Urea, 33 g SSP and 330 g MoP in every pit.
 - Prepare pits for planting coconut and arecanut seedlings. For areca nut and coconut, pits should be prepared at a distance of 2.5 m and 7.5 m respectively.
 - Apply first split dose of chemical fertilizer as per recommended dose for coconut trees and Khasi Mandarin of different age. This should be followed by adequate irrigation.
- **Plant protection:**
 - As there is chance of infestation of stem borer, gall midge, leaf folder etc. in *boro* rice, apply Carbofuran 3 G to protect the crop.
 - As there is chance of blast disease in *boro* rice, spray Hinosan @ 1 ml / litre of water to control blast disease.
 - As there is chance of stem borer in lemon, spray Monocrotophos @ 5 ml / 2 litres of water to the pest. To control trunk borer kerosene treated cotton should be inserted in the holes of the tree trunk made by the insect before plugging them with mud.
- **Fishery:**
 - As the water level of ponds are going down, the fishery owners may arrange for partial harvesting of marketable sized fish (>700gm). Measures to be taken to prevent EUS disease through liming. To control EUS, dip treatment in 500 ppm potassium permanganate solution may be practiced.
 - Farmers are advised to apply lime @ 25 kg for one bigha water area of the pond before releasing fingerlings. After 7 days of lime application FYM should be applied @ 250 kg and after 10 days of FYM application. Chemical fertilizers in the form of Urea (4 kg) and SSP (3 kg) should be applied in one bigha water area of the pond.
- **Animal Husbandry:**
 - Dry rice straw for hay making and preserve for future use. Store rice straw by making silage.

Arunachal Pradesh

- **Realised Rainfall:** Rain occurred in East Siang, Lohit, Papumpara, Upper Subansiri and West Kameng districts of the State during last week and no significant rainfall in the remaining districts of the State.
- **Rainfall Forecast:** Rainfall is likely at many places over the State.
- **Major rabi crops:** Pea, maize, potato
- **Crop Stage:** Pea, potato (harvesting), maize (grain formation)
- **Crop Condition:** Good.
- **Advisory:**
 - Potato and pea may be harvested in bright sunny days.
- **Major Seasonal Crop:** Vegetables(maturity/harvesting)

- Matured fruits of orange, guava and pineapple may be harvested for sale and avoid over maturity.
- Undertake weeding be done followed by fertilizer application in vegetables.
- Harvest the winter crop of vegetables which are ready for harvest like cabbage, cauliflower and broccoli may be harvested which are ready for harvest.
- Harvest the late transplanted vegetables like cabbage and cauliflower etc.
- **Animal Husbandry:** Vaccination and deworming from time to time for gastrointestinal parasites be done with mineral mixture supplement in feed.

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

Andhra Pradesh

- **Realised Rainfall:** Most of the district received no rainfall during last week.
- **Rainfall Forecast:** Dry/mainly dry weather is likely over the State during the period.
- **Major Crops:** Cotton, Sugarcane and Vegetables
- **Crop Stage:** boll maturity (cotton). *Rabi* crops are at grain development/maturity stage.
- **Crop Condition:** Good.
- **Advisory:**
 - As there was no rainfall during last week, farmers are advised to apply irrigation to standing *rabi* crops like maize and groundnut.
 - Undertake top dressing of fertilizer i.e, 35 kg urea and 15 kg MOP per acre is to be applied for cotton in Krishna, Guntur and Prakasam districts. Spraying 2% urea or 2% KNO₃ should be taken up two times at weekly intervals.
 - Farmers in Ananthpur district are advised to apply neem coated urea to rice, which will reduce the nitrogen losses and also incidence of pests. Neem coated urea can be prepared by mixing 43 kg of urea + 15 kg neem cake which is sufficient for one acre of rice field.
 - To prevent fruit drop and to increase fruit size in mango, spray Planofix @ 4.5 ml+ 50 g Potassium nitrate (Multi-K) in 10 litres of water at peanut to marble stage and irrigate.
 - To prevent the fruit drop in water melon, farmers are advised spray Planofix @ 2 ml per litre of water.
 - Under the present temperature conditions irrigation to maize crop which is at flowering and tasseling stage, is to be scheduled for optimum yield.
- **Plant protection:**
 - Under the high temperature conditions in Northern Telangana zone incidence of panicle mite may occur in rice crop which is at panicle initiation stage. To control the pest spray Profenophos @ 2ml/l or Dicofol @ 5ml/l.
 - Under present weather condition incidence of early shoot borer is noticed in sugarcane in Southern Telangana zone. To control, adopt the following IPM measures.
 - Plant the setts in deep furrows
 - Spray Lindane @ 10 kg per acre in 2:3:4 ratios at 1, 30 and 60 days after transplantation
 - Give irrigations at close intervals
 - In sugarcane field, at 3 days after transplantation and in ratoon crop immediately after ratooning, spread sugarcane trash @ 1.25 tonnes per acre
 - Spray Endosulphan @ 2 ml per litre of water at 4, 6 and 9th week after transplantation
 - Release of parasitic complex *Trichogramma chelonis* @ 20,000 per acre at 30 days after transplantation, 4 times at 10 days interval.
 - Present weather conditions are favourable for the incidence of leaf folder in rice in Anantpur district. To control, pull the rope across the field 2-3 times at tillering stage, so that larvae falls down from the leaves or spray Chloripyriphos @ 2.5ml/litre or Acephate @ 1.5 gm /litre or Cartaf hydrochloride @ 2.0 gm/ litre.
 - Prevailing weather conditions are congenial for the incidence and spread of yellow and red spider mites in sugarcane in Southern Telangana zone. To control, spray Wettable Sulphur @ 3 g per litre of water to cover the under surface of the leaves.

- Prevailing weather conditions are congenial for the incidence of jassids and red mites in brinjal and bhendi. To control, Jassids
 - Spray Dimethoate or Methyl demeton @ 2 ml per litre of water.
 To control, Red mites
 - Spray Dicofol @ 5 ml or Wettable Sulphur @ 3 g per litre of water.
- Incidence of thrips, mites and Chaenophora blight is noticed in chillies To control,
 - To control, Thrips
 - Spray Acephate @ 1.5 g or Fipronil @ 2 ml per litre of water.
 - To control, Mites
 - Spray Phosolone @ 2 ml per litre of water.
 - To control, Chaenophora blight
 - Spray Copper-oxy-chloride @ 30 g + Plantamycin @ 1 g in 10 litres of water twice at weekly intervals.
- Under prevailing weather condition eriophyid mite is noticed in coconut. To control,
 - Collect and destroy mite infested fallen nuts & buttons
 - Apply recommended dose of NPK fertilizers
 - Spray Azaderachtin 10,000 ppm @ 5 ml per litre of water.
- Flower:
 - Incidence of bud borer and mites is noticed in jasmine. To control,
 - Bud borer
 - Spray Endosulfan or Malathion @ 2 ml per litre of water.
 - Mites
 - Broadcast Wettable Sulphur @ 8-10 kg per acre.
- Poultry:
 - To minimize the summer effect, the following management practices need to be adopted
 - Arrange fans and foggers in sheds
 - Cover the sheds with paddy straw and arrange sprinklers
 - Feed poultry birds with wet mash to increase the feed intake
 - Provide cool water for drinking.
- Cattle and Buffaloes:
 - The prevailing weather conditions are congenial for the occurrence of
 - Foot and mouth disease in cattle,
 - ET and sheep pox in sheep,
 - Ranikhet disease in poultry
 - To prevent the diseases, vaccinate the animals.

Karnataka

- **Realised Rainfall:** Most of the districts received no rainfall during last week.
- **Rainfall Forecast:** Dry weather is likely over the State during the period.
- **Major Crops:** Pigeonpea (maturity/harvesting), Sunflower (maturity/harvesting), Vegetables (Flowering/fruiting/ harvesting), *Rabi* Sorghum (grain development), Bengalgram (maturity / harvesting).
- **Advisory:**
 - Farmers are advised to provide irrigation to *rabi* crops as dry weather is likely to prevail for the next five days and there was no significant rainfall during last week.
 - Farmers in northern dry zone are advised to undertake sowing of sweet gourd, ridge gourd and transplanting of onion under irrigated condition.
 - Farmers in Southern Transition zone are advised to complete transplanting of rice.
 - Complete harvesting of green gram, black gram, cow pea etc. and undertake threshing, winnowing, cleaning, drying, etc in coastal Karnataka.

- In North Transition zone Undertake harvesting and threshing of Chickpea, Sorghum, cotton, Wheat as early as possible. Produce (grains) should be sun dried and stored. In rainfed areas, Plough the land, keep it exposed to sun for destroying weeds and pest eggs.
- Farmers are advised to undertake intercultural operations in sugarcane and *rabi* vegetable crops like brinjal, cabbage, cauliflower, capsicum and tomato to keep the fields weed free.
- Continue harvesting of Bengal gram, sorghum and safflower in north east dry zone.
- As dry weather is likely during next five days, farmers are advised to provide irrigation to the dry land horticultural crops and other field crops depending on soil type and crop condition in Eastern dry zone.
- As temperature is rising give three irrigations at critical stages of mango, one just after fruit setting (at mustard stage), another at marble stage (20 days later) and again 15-20 days prior to fruit maturity. If sufficient water is available, irrigation can be given at 20 days interval starting from fruit setting till maturity.
- Undertake soil solarization as temperature is rising for healthy nursery growing.
- Groundnut crop is at pod development stage which is critical stage for irrigation, as temperature is rising farmers are advised to give irrigation.
- 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 as to save more water for future use and to control the heavy evaporation of water, spread the mulch materials around the trees/plants.
- In some area, paddy crop is at different stages (tillering and panicle initiation stages). This is the right time for giving first and 2nd top dressing. At tillering stage (25-30 days after planting) apply 7.5 kg nitrogen and 18.75 kg potassium per acre of paddy. At panicle initiation stage (45-55 days after planting), apply only 7.5 kg nitrogen per acre. Before top dressing, drain the water from fields, apply fertilizer preferably during evening hours and later impound the water 24 hours after application. To increase the use efficiency of urea treat it with either coal tar (1 litre/50 kg urea) or nimin (500 g/50 kg urea) before application.
- To control the dropping of tender nuts and buds in arecanut take up the spray of Carbendazim @ 1 gm or Mancozeb @ 2 gm per liter of water.
- **Plant protection:** Present weather conditions were congenial for the incidence of
 - sucking pests in water melon, sweet gourd, ridge gourd crop in North dry zone, take up spraying of 0.5 ml Imidachloprid or 2.5 g. Acetamaprid dissolved in one liter of water.
 - bacterial blight disease in pomegranate crop spray the crop with Streptomycin Sulphate 0.5 g. + Copper oxy-chloride 2 g. dissolved in one liter water. Then take up spraying of micro nutrients viz., 1 g. Zinc Sulphate + 1 g. Magnesium Sulphate + 1 g. Barax + 1 g. Calcium dissolved in one liter of water.
 - jassids insects and powdery mildew disease in mango, spray the crop with 1 ml Monocrotophos along with 1 g. Carbandizeme dissolved in one liter of water.
 - blast in rice, spray with carbendazim @ 1gram/litre of water.
 - leaf spot and bud necrosis in sunflower, spray with Mancozeb 2g/lt) and Imidacloprid (0.5ml/lt) respectively.
 - collar rot in groundnut, to control drench the crop with Mancozeb @3 g/litre of water.
 - powdery mildew in pulse, mango crops, to control spray Carbendezim @ 1gm or water soluble Sulphur @ 3 gm per liter of water can be sprayed.
 - hoppers in mango spray Melathion @ 2ml / lit of water or Monocrotophos @ 1.25 ml / lit of water.
 - inflorescence bug in arecanut. Place the 10 gms Phorate granules in small polythene bag and keep inside the inflorescence part of arecanut
 - Purple blotch in onion to control spray Chlorthalonil 2g/lit.
 - inflorescence dieback and inflorescence caterpillar in arecanut in Southern Transition zone and Coastal zone. To control spray with mancozeb @ 2 gram/litre and chloropyriphos @ 2ml/litre of water.
 - Pseudostem weevil in banana, to control apply 20 gram carbofuran per plant.
 - leaf spot in Sapota, spray 2 g Mancozeb (Dithane M-45) per liter of water.
 - mites in coconut spray water soluble sulphur @ 5gm/liter of water or spray a mixture of neem oil (20 ml) + garlic solution (20 gm) + soap powder solution (5 gm) per liter of water to the coconut flower and fruit bunch.

- tea-mosquito in cashew nut, to control spray 1 ml of Monocrotophos or 2 ml dimethoate per liter of water
- dry condition is congenial for leaf hoppers at flowering stage of mango. For control of leaf hoppers spray Rogor or Metasistox @ 2ml/l + Wettable sulphur @3g/l. Spray 1.7 ml Dimethoate 30 EC plus wettable sulphur 3.0 grams per liter of water to control Jassids and powdery mildew of Mango.
- In nursery if damping off is noticed drench the nursery with Mancozeb @ 2gram/litre of water and If Murda complex is noticed spray with imidacloprid @0.5ml/litre of water.
- **Animal Husbandry**
 - Due to increase in day temperature from 34° to 35°C in poultry farm there is a probability of drop in feed intake, egg weight drops and shell quality deteriorates. So farmers are advised to maintain optimum temperature between 18° to 29° C in poultry shed for better production.
 - Due to high day temperature between 36°-37°C, the dairy farmers are advised to not to allow grazing of animal between 12 p.m to 5 p.m, supply of adequate quantity of drinking water, sprinkle the water on the animals before milking & floor should be cool and clean. Calves are deworms during summer months to increase the appetite of the animals.
 - Undertake summer deep ploughing to expose the pupae and eggs of insect pests and weed seeds as temperature is rising.
 - Conservation of fodder (hay, silage and in large heaps) to meet the requirement during lean period.
 - Animals should be given mineral supplements based on the deficiency in the region.
 - Dry fodder to be fed after uniform mixing with 2% urea and 10% molasses or jaggery to improve palatability.
- **Fishing**
 - Due to high wind speed fisher men's should avoid to go for fishing in deep sea.

Kerala

- **Realised Rainfall:** Most of the districts of the State received no rainfall during last week.
- **Rainfall Forecast:** Mainly dry weather is likely during next 48 hours and isolated rainfall is likely thereafter over the State.
- **Major Seasonal Crops:** Rice (grain maturity/harvesting), Vegetables and plantation crops (coconut, arecanut, pepper and cashew).
- **Crop Condition:** Good.
- **Advisory:**
 - As there was no rainfall during last week and no significant rainfall is likely to prevail for the next five days, farmers are advised to apply irrigation.
 - Farmers of Wayanad district are advised to undertake harvesting of arecanut, pepper, coffee and cardamom. Start land preparation and planting of ginger.
 - Farmers of Ernakulam district are advised to continue sowing of summer vegetables such as cucurbits. Adopt integrated pest management against fruit fly in cucurbits. In home gardens cover the fruits with paper cover. In large-scale cultivation apply carbaryl 0.2% or malathion 0.2% suspension containing jaggery or sugar at 10g/l at fortnightly intervals at flowering and fruit initiation.
 - Apply urea @ 87 g, 300g mussoriephose and 85g M.O.P. and 65 g urea, 250g mussoriephose and 100g M.O.P. respectively per plant to one month and two months old nendran banana plants. Banana plants of three to five months old need to be fertilised at 65 g urea and 100 g M.O.P. each for every month. After bunch emergence apply 65g urea per plant.
 - Undertake planting of vegetables in garden lands and rice fallows for summer cultivation. For summer cultivation of vegetables, prepare the land by burning stubbles of previous crop. Treat vegetable seeds with Bavistin @ 2g/kg of seed before sowing.
 - Farmers are advised to irrigate the coconut crop frequently depending on the soil condition to reduce the nut fall and to increase the nut setting. Mulch the basin with dry palm leaves for reducing the heat load at the root zone and for water conservation.

- In Northern zone rice seedlings can be prepared for the third crop where irrigation facility is available. Short duration varieties like jyothi, hrusva, revathi may be preferred. To increase the water retention capacity apply compost or FYM to the fields. Farmers are advised to keep vigil against stem borer and leaf roller. Use Tricho cards @ 2cc/acre. Cut each card into 10 pieces and place @ 1 piece per 5 cents. Yellow card for stem borer and blue card for leaf roller. Replace the cards once in every 7-10 days.
- This is ideal time for ginger planting. Treat the seeds with pseudomonas / trichoderma against foot rot disease. Apply green leaf mulching to prevent soil erosion and to increase the organic matter content in the soil. Use disease free planting materials.
- Complete harvesting of rice in Pathinamthitta and Thiruvananthapuram districts.
- Farmers in High Altitude zone are advised to cultivate crops like ginger turmeric vegetables etc. as an intercrop in irrigated coconut gardens. Stem bleeding may become more severe. Irrigate the coconut palms and provide shade to the young palms.
- Broadcast lime @ 500 g per arecanut palm and incorporate into soil.
- Irrigate the coconut crop frequently depending on the soil condition to reduce the nut fall and to increase the nut setting. Mulch the basin with dry palm leaves for reducing the heat load at the root zone and for water conservation. Apply 2/3rd of the total fertilizer now to those fields where irrigation facilities are not available.
- Farmers in northern zone are advised to give second dose of fertilizer in banana plantations which were planted during September – October. Irrigate the crop at the rate of 40-50 litres per nendran banana. Mulch the crop with dried leaves.
- This is ideal time for planting pepper. Apply mulch and protect the plants from the scorching sun.
- Farmers are advised to go for harvesting of black pepper in northern zone. The harvested berries are piled up in a heap to initiate browning. Irrigate the vines. Mulch the vine with dry leaves and to reduce the soil temperature and also for conserving water. Clean the basins of the pepper vines and remove the weeds. Apply Trichoderma along with farm yard manure and Neem cake in foot rot affected plots as prophylactic measure.
- Apply top dressing in cucurbitaceous vegetables.
- Delay sowing/planting of new crop in Southern zone until pre-monsoon showers are received.
- **Plant Protection:** Weather conditions are favourable for mild incidences of –
 - mealy bug infestation in vegetables and Papaya, other garden plants are also affected by mealy bug. Spray dimethoate at 0.05% to control them.
 - sigatoka leaf spot disease in banana, spray 1% Bordeaux mixture or Tilt 25 EC (1 ml/lit of water) after cutting the severely affected leaves and burning it. Apply neem-garlic emulsion to control the vectors spreading Bunchy top virus. Against pseudo stem weevil, spray with chlorpyrifos 0.03 %.
 - mahali disease in arecanut. To control apply 1% Bordeaux mixture against. Provide good drainage in the garden.
 - powdery mildew and shoot borer in vegetables in High Altitude zone. Farmers are advised to apply 2-3 g wettable sulphur for controlling powdery mildew and Sevin (50%) (3 gram per litre) to control shoot borers.
 - tea mosquito bug and twig blight in cashew. To control, spray Quinalphos 2 ml/litre (25 E.C) + Mancozeb 2 g/litre against Tea Mosquito Bug and apply Bordeaux paste on the cut surface after removing the branches affected by twig blight. Collect and destroy the pupae of stem borer from the basal region. Remove the emerging shoots from the healthy seedlings and proper sanitation by appropriate weed control.
 - bunchy top virus in banana in High Altitude zone. Apply neem-garlic emulsion to control the vectors spreading.
 - blast and sheath rot diseases in rice in High Altitude zone, spray 2.0 g pseudomonas in 1 litre of water at weekly intervals.
 - In Northern zone apply wettable sulphur 5 g / liter of water against calyx mite in coconut. Cut and remove bud rot affected portions of coconut palm and apply 10% Bordeaux paste on cut surface. Apply Sevin (8 gm in 2 lit. of water) to the grooves of red palm weevil affected palms. Pheromone traps can

also be used to destroy red palm weevil. Apply calyxin (5ml in one liter of water) to the palm affected by stem bleeding.

- The dry conditions may favour the multiplication of white flies and jassids which act as vectors for spreading crinkling in cucurbits especially bittergourd. Spraying of neem oil + castor oil garlic emulsion may be undertaken.

Materials: 20 ml castor oil, 80 ml neem oil, 6g ordinary bar soap and 120g garlic. Preparation of neem oil + castor oil – garlic emulsion (1 litre):

Mix castor oil and neem oil together. Slice the bar soap and dissolve in 50 ml water. Mix the oil and soap solution and dilute with 6litres of water. Grind 120g of garlic and blend it well with the oil-soap emulsion and sieve.

- Erect traps against fruit flies in bitter gourd and snake gourd. Caution should be taken to avoid insertion of rain water in to the traps. Set pheromone traps also to destroy male flies. To control bacterial wilt in cowpea, drench with kocide @ 2g/litre and for Fusarium wilt / Rhizoctonia root rot, drench the soil as well as spray with fytran 4 g/litre. Spraying fytran 4 g/litre is effective against the attack of Colletotrichum (karivalli) also. In case of cow pea stem borer, apply carbaryl @ 2g/litre.
- Dryness can aggravate the incidence of pests like aphids, mites, etc in vegetables. Farmers are advised to look out for symptoms like leaf crinkling, brittleness/rough leaves, etc. Placing and yellow board smeared with castor oil among the vegetable crops will help to control the pests causing this condition.
- Farmers of Southern zone are advised to adopt proper control measures on a prophylactic basis against the pseudostem borer in banana. A solution of Sevin (50%) (4 g/l) may be poured/ sprayed into the leaf axils and on the pseudostem. Prophylaxis is important in the case of pseudostem borer because the damage caused by this pest usually becomes visible only at the bunching stage. In the case of organic banana, pseudostem borer can be controlled by spraying BIOMET (preparation of Metarhizium) / BIOGUARD (preparation of Beauveria) @ 5ml/litre. The spray fluid should reach the leaf axils and on the pseudostem. In addition to this smear the surface of the pseudostem with a slurry of 1kg clayey soil and 2 hand full of ash.

- **Animal Husbandry:**

- Cattle should be provided with drinking water since dry conditions are being expected. In the case of poultry bred under deep litter system, farmers are advised to see that the litter is not damp. Animals may keep cool by sprinkling water over the body.

Tamil Nadu

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry/mainly dry weather is likely during next 48 hours and isolated rainfall is likely thereafter over the State.
- **Major Rabi Crops:** Groundnut, pulses and *thaladi* rice, sugarcane, banana and vegetables.
- **Crop Stage:** grain formation/development (rice), pod maturity (pulses), picking (cotton)
- **Crop Condition:** Good
- **Advisory:**
 - As there was no significant rainfall during last week, farmers are advised to apply need based irrigation to the crops.
 - Farmers in western zone are advised to apply, 80 kg of Gypsum per acre on 40 - 45 day, remove the weeds and cover with soil for each plant. Because of these, rooting will be deeper which will result in healthy and sizeable pods.
 - Farmers who have sown groundnut in 'Thai Pattam' are advised to go for application of 80 kg of Gypsum per acre on 40 - 45 day, remove the weeds and cover with soil for each plant to get healthy and sizeable pods.
 - Farmers in Tuticorin, Virudunagar and Thirunelveli are advised to undertake harvesting of sorghum, sunflower and cotton as dry weather conditions prevail during these days.

- Farmers in Thanjavur, Trichy, Nagappattinam and Thiruvarur are advised to undertake intercultural operations in rice fallow pulses viz., black gram and green gram. In the rice fallow black gram, spray 2% DAP + 1% KCl solution on morning or evening at flower initiation and another spray at 10 days interval.
- Undertake intercultural operations and application of fertilizers in vegetables and sugarcane.
- To avoid the evaporative loss of soil moisture after receiving the rain, farmers are advised to go for mulching the inter row spacing with crop residues or weed biomass.
- Conserve moisture in orchard crops as dry weather conditions prevail during these days.
- Banana bunches should be covered with leaves to prevent sun scorching.
- During this summer, farmers who have sown Capsicum and green chillies experience problems like early flower dropping and poor formation of mature chillies due to early growth retardation. To overcome this, spraying of solution containing 10 mg of Planofix per litre of water over the plants aged between 60 and 90 days is advised.
- Farmers are advised to spray 0.5% of Potassium Chloride can be sprayed to withstand the water shortage in north eastern zone.
- **Plant Protection:** Weather conditions are favourable for
 - army worm in rice. Spraying of quinolphos 25 EC 400 ml or monochrotophos 36 SL 200 ml / acre is advised.
 - sucking pest in cotton and chillies. Spraying of dimethoate at 500 ml/ha is recommended.
 - fruit borer and mites in chillies. For controlling fruit borer, spray chlorpyriphos at 1.5 l/ha and for mite use dicofol at 1.5 l/ha or wettable sulphur at 3.75 kg/ha. For spraying the above chemicals, use hand sprayer. If the incidence is severe, apply carbofuron at 1 kg/ha.
 - leaf bugs in small onion crop. Leaves become stunted and young leaves will have their tips appear coiled as the bugs suck juices out of the leaves. Control this menace by spraying Triazophos (2 ml/litre) or Profinophos(2ml/litre).
 - fruit borer incidence in brinjal crop. To control spray Imidachlor @ 3 ml/ lit of water.
 - blast disease in rice. Foliar application of Pseudomonas florescense @ 400g/acre or Tricyclazole @ 120 g/acre can be applied to avoid spread of this disease.
 - white fly incidence in rice fallow black gram. To control spray with Monocrotophos and Dimethoate @ 400 ml /acre.
 - leaf eating insect and bugs in rice fallow pulse crops. To control spray Endosulphon 35E.C @ 400 ml per acre along with sticking agent khadi bar soap 600g + palm sugar 200g + cotton seed extract 200 ml in 200 L of water.
 - muranai disease in chilli. To control spray dimethoate or dicofol 2ml/lt.
 - white fly in rice fallow black gram spray Monocrotophos (or) Dimethoate @ 400 ml /acre to prevent the incidence, which could spread yellow mosaic disease.
 - The expected weather is conducive for the brown spot incidence in rice varieties in Coimbatore. Spray Edifenphos @ 500 ml.
 - Since high temperature is expected in coming days which conducive for mealy bug incidence in cotton, sunflower, vegetables and fruit crops like guava in Coimbatore. Look out for the incidence and spray fish oil rosin soap 4%.
- **Animal Husbandry**
 - Calves above 3 months and sheep and goat above 2 months should be vaccinated against Foot and Mouth disease.
 - Calves should be protected against intestinal worm to achieve good growth and perform to their potential in later stages.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]

Maharashtra

- **Realised Rainfall:** Dry weather prevailed during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State during the period.
- **Major rabi Crops:** linseed, wheat, mustard and vegetables.
- **Major summer crops:** summer rice, groundnut, sunflower, maize, *bajra*.

- **Crop Stage:** wheat (maturity / harvesting), mustard, linseed (seed maturity / harvesting), vegetables (vegetative / flowering / fruiting / harvesting) and summer rice (panicle initiation / flowering / grain formation in Konkan and tillering / panicle initiation in East Vidarbha), summer groundnut (vegetative / flowering / pegging), summer sunflower (vegetative), summer maize(vegetative), summer *bajra* (vegetative / flag leaf initiation).
- **Crop Condition:** Satisfactory.
- **Advisory:**
 - Conserve moisture in the crop field at maturity stage of *rabi* crops.
 - Complete harvesting of already matured mustard, linseed and wheat in morning hours.
 - Maintain 5-8 cm water level in the rice field. Apply nitrogenous fertilizer @ 40 kg / ha at tillering stage of rice crop.
 - Apply fourth dose of 136 kg Nitrogen and 85 kg Phosphorous and potash each / ha, after 4 to 4.5 months from planting followed by irrigation in pre-seasonal sugarcane.
 - Apply second dose of 100 kg nitrogen / ha with 1 kg neem powder for 6 kg urea to *suru* sugarcane after 6 to 8 weeks from planting followed by irrigation.
 - Apply second dose of 45 kg nitrogen / ha to summer *bajra* after 30 days of sowing.
 - To reduce the transpiration rate in banana, spray mixture of 800 g Kaolin dissolved in 10 liters of water.
 - Due to increase in evaporation, irrigation in groundnut may be given at 8-10 days interval.
 - Use sprinkler and drip irrigation system in summer season in order to save the water.
 - Due to increase in temperature fruit drooping may occur in mango, to reduce the dropping, mulching of roots with grass and application of water @ 100 to 150 litres / plant may be done.
 - As dry weather prevailed during last week over the State and dry weather is likely to prevail during next five days, apply protective irrigation to the standing crops.
- **Plant Protection:**
 - Due to cloudy condition of last week there may be attack of tea mosquito and thrips in cashew on inflorescence. Spray Endosulfan 35% @ 15 ml / 10 litres of water with 10 g of Urea / 10litres of water. If the attack is on fruit setting, then spray Carbaryl 20% @ 20 g or Prophanophos 50% @10 ml or Lamdacylotrin 5% @ 6 ml in 10 litres of water
 - Due to change in weather there may be attack of thrips in mango. Spray Phosalon 35% @ 15 ml or Dimethoate 30% @ 10 ml in 10 litres of water.
 - Weather conditions are favourable for mild incidences of –
 - blight in rice in Konkan, spray Carbendazim @ 1 g / liter or Copper oxychloride @ 2.5 g / litre of water.
 - black fly in orange, sweet lemon & lemon, spray Confidor @ 0.5 ml per litre of water.
 - leaf roller in summer groundnut, spray Phosphamidon 85% @ 120 ml or Cypermethrin 20% @ 200 ml or Quinolphos @ 1000 ml / ha in 500 litres of water.
- **Fishery:**
 - The growth of fishes and water in the pond may be checked periodically as there is no significant rain for last few weeks. Natural feed and supplementary feed like groundnut cake, rice or wheat bran be mixed in 1:1 proportion and mixed with water may be given twice a day.

Gujarat

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State.
- **Major Rabi Crops:** Wheat, potato, mustard, gram, vegetables.
- **Crop Stage:** wheat (early maturity / maturity), mustard (maturity / harvesting), gram (maturity / harvesting), potato (maturity / harvesting) and vegetables (vegetative / flowering / fruiting / harvesting).
- **Crop Condition:** Satisfactory.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.

- Under prevailing weather, apply irrigation to sugarcane at an interval of 10 to 12 DAS according to soil texture. Second supplementary dose of Nitrogen @ 50 kg N / ha should be applied.
- Prepare land and undertake sowing of green gram. Select the improved variety from K-851, Mung Gujarat-3, 4 and CO-4. The seed rate should be 25 kg / ha with spacing of 30 x 10 cm. Treat seeds with *Rhizobium* culture @ 1 packet / 8 kg seeds. At the time of sowing fertilizer dose of N and P should be applied @ 20 kg and 40 kg / ha.
- In view of prevailing dry weather, undertake harvesting of already matured crops of wheat, pulses and mustard. Also harvest matured, onion and garlic crops and store it in ventilated shaded place. Undertake harvesting of fenugreek during morning time.
- As there is no chance of rain, apply 60 kg / ha N as top dressing at 30 DAS of pearl millet, 40 kg/ha N to fodder sorghum at 30 DAS and 30 kg / ha N as first split dose to bitter gourd.
- This is proper time for sowing of summer vegetables like ladies finger, brinjal, chilli etc. Select varieties like Pusa Savani, Parbhani Kranti, Guj. Okra -2 and GOH-1 for ladies finger, GOB-1 and GBH-1 for brinjal and GVC-101 and GVC-111 for chilli.
- Complete harvesting of potato crops.
- **Major Seasonal Crop:** Fruit crops and Sugarcane (vegetative / harvesting).
 - Due to high temperature and humidity forecast during next week avoid irrigation to fruit trees.
 - Spray a solution of 200 mg NAA + 200 g urea in 10 litres of water to mango tree to enhance fruit size and reduce fruit drop.
 - Due to increase in air temperature, farmers are advised to protect banana bunch with plastic sheet.
- **Plant Protection:**
 - Due to high temperature and humidity forecast during next week, there is possibility of sucking pests in groundnut, cow pea and vegetables. Spray monocrotophos 36 EC @ 0.1% to manage sucking pests.
 - Weather conditions are favourable for mild incidences of –
 - thrips causing leaf curl in chilli, spray Triazophos 40 EC @ 10 ml or Acephate 75 SP @ 10 g / 10 litres of water at 10 to 12 days interval.
 - mealy bug in mango, dust 2% methyl parathion powder around the mango tree for effective control of mealy bug.
 - leaf weber in sesame, for control of leaf weber, spray Endosulfan 35 EC @ 20 ml in 10 litres of water.
 - jassids, thrips and aphids in groundnut, for the control of jassids, thrips and aphids, spray Monocrotophos 36EC @ 10 ml or Phosphamedon 85EC @ 3 ml or Dimethoate 30EC @ 10 ml in 10 liters of water.
- **Animal Husbandry:**
 - Due to high temperature and humidity, keep the animals under shade during noon hours and avoid feeding between 11 to 15 hrs. Make arrangement of curtains for poultry house.

CENTRAL INDIA [M.P., CHHATTISGARH]

Madhya Pradesh

- **Realised Rainfall:** No rainfall occurred over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State during the period.
- **Major Rabi Crops:** wheat (grain development), pulses, gram (grain development/maturity), sugarcane (cane development), cotton (boll development/ maturity) and vegetable crops (late vegetative)
- **Crop Condition:** Satisfactory.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions over central India, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - Farmers are advised to undertake sowing of summer ladyfinger and cucurbits. Undertake planting of sugarcane under irrigated conditions during summer.
 - Undertake pit preparation for planting of new orchard crops.

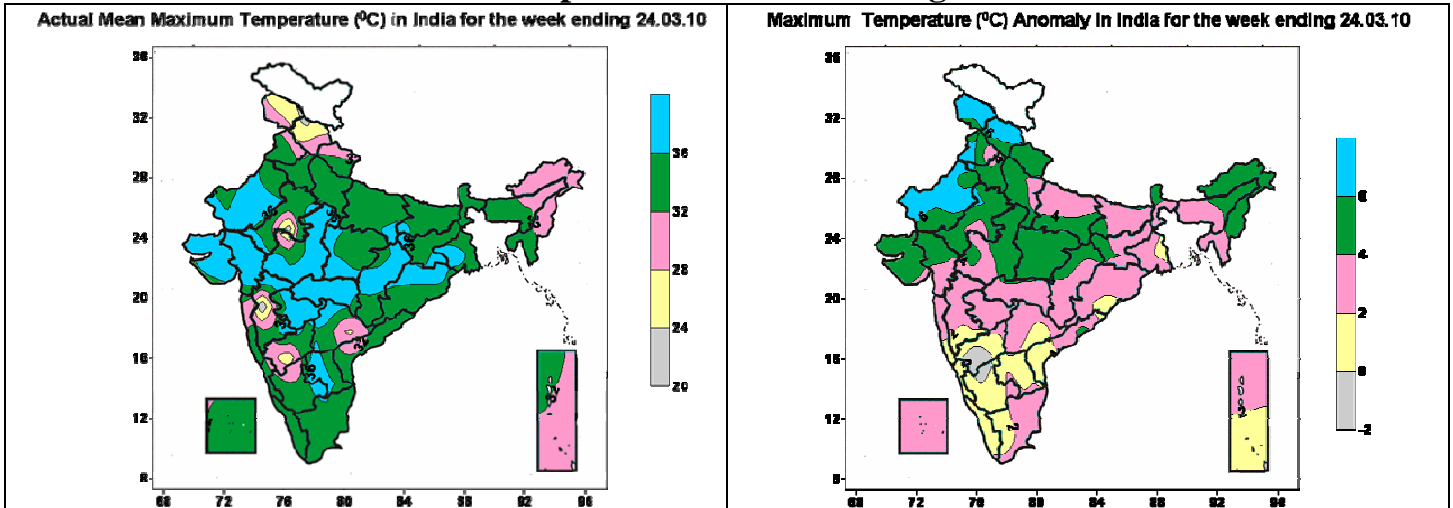
- Farmers are advised to continue transplanting of onion, cabbage.
- Farmers should irrigate their berseem crop after cutting of green fodder and give nitrogenous fertilizer as per recommendation.
- Undertake sowing of maize (African tall, Vijay, Kissan) for fodder.
- Prepare field and sow cucurbitaceous vegetables i.e. water melon, musk melon and other cucurbitaceous vegetables.
- Undertake sowing of summer sunflower, moong, ladyfinger and cow pea.
- Undertake harvesting of matured gram and mustard. After harvesting of gram and wheat farmers may start preparation of field for summer moong and urd crop.
- **Animal Husbandry:**
 - Cattle should be vaccinated to save them from infections/diseases like Black Quarter and FMD etc. The animals should be dewormed through deworming tablets. Take care the pregnant animals and feed them balance diet. Provide the animal's clean water and balance and nutrients rich food.
- **Plant Protection:** Weather conditions are favourable for-
 - termites in wheat, apply chloropyriphos 20 E.C. with irrigation water.
 - sucking pest in chilly, tomato, brinjal, spray Dimetoate 1 ml per litre of water or Phosphomidan 3 ml per 10 litre of water.
 - termites in wheat, spray chloropyriphos 20 E.C. with Irrigation water and spray of Neem seed kernels Extract (5%),use pheromone traps (4 in one acre),
 - mango hopper, spray with Imidachlopid 200 SL @ 0.25 ml/l or Endosulfan 35 EC @ 1.5 ml/l in mango plantation.
 - aphids in safflower, spray Rouger @ 750 ml / hac.
 - sucking pest in bhindi, spray Emydachloroprid 17.8 SL in 0.5 ml per litre of water.
 - stem borer in sugarcane, spray Foret 10 G 10 Kg per hectare of water.

Chattisgarh

- **Realised Rainfall:** Dry weather prevailed over the State during last week.
- **Rainfall Forecast:** Dry weather is likely to prevail over the State during the period.
- **Major Rabi Crops:** Wheat (early maturity / maturity), *boro* rice (tillering / panicle initiation / flowering), gram (maturity / harvesting), mustard (maturity / harvesting).
- **Crop Condition:** Good.
- **Advisory:**
 - In view of prevailing dry weather condition during last few weeks and also during next five days along with persisting high temperature and heat wave conditions, farmers are advised to apply light and frequent irrigation to the standing crops to meet the excess evaporative demands.
 - The summer rice is at tillering / panicle initiation / flowering stage. Maintain 5–7 cm standing water in the rice fields.
 - Complete the inter-cultural operation followed by irrigation in groundnut before flowering to increase the pegging and finally yield.
 - Undertake harvesting of already matured crops of wheat and complete harvesting of potato, mustard and pulse crops.
 - This is proper time for sowing of summer vegetables like pumpkin, bitter gourd, bottle gourd, okra etc. with assured irrigation. Sowing of these vegetables should be completed at the earliest.
- **Major Seasonal Crop with stage:** Sugarcane (vegetative), Autumn sugarcane (planting), vegetables (flowering / fruiting / harvesting).
- **Advisory:**
 - Intercultural operation, fertilizer application, earthing up followed by irrigation is advised at knee high stage in sugarcane crop sown during the month of November.
 - Farmers are advised to prepare well pulverized field for planting of sugarcane. Top one third portions of the cane should be used for seed purpose. Before planting the sugarcane setts should be treated with hot water / hot air / fungicides. Planting should be carried with assured irrigation facilities.

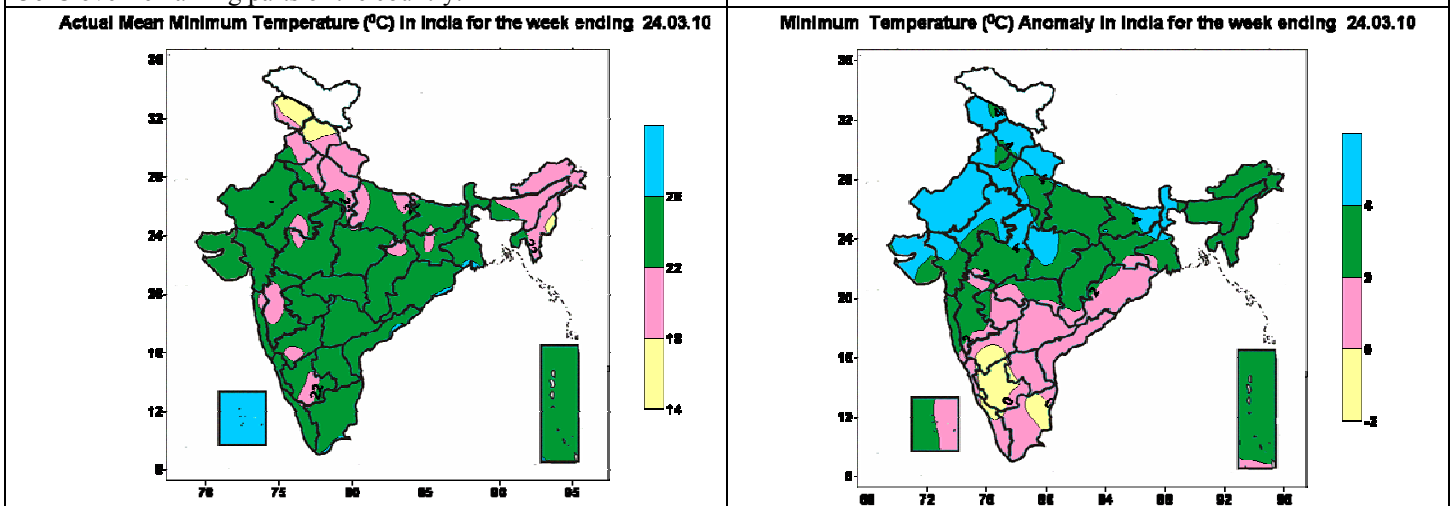
Annexure I

Contour maps o for the week ending 24.03.10



Actual Mean Maximum temperature ranged between 36⁰C and above over most parts of West Rajasthan, Saurashtra & Kutch, Gujarat, West Madhya Pradesh, Marathwada, Vidarbha, some parts of East Rajasthan, East Madhya Pradesh, East Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Maharashtra, East Madhya Pradesh, Chattisgarh, Orissa, Telangana, Rayalaseema, Interior Karnataka, 28 to 32⁰C over most parts of Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Andaman Nicobar Islands, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, East Rajasthan, West Madhya Pradesh, Konkan, Madhya Maharashtra, Karnataka, Telangana, Coastal Andhra Pradesh, Lakshadweep Island, 24 to 28⁰C over some parts of Jammu & Kashmir, Himachal Pradesh, East Rajasthan, West Madhya Pradesh, Madhya Maharashtra, North Interior Karnataka, 20 to 24⁰C over some parts of Himachal Pradesh, East Rajasthan, West Madhya Pradesh, Madhya Maharashtra, Telangana, 32 to 36⁰C over remaining parts of the country.

Actual Mean Maximum temperature anomaly ranged between 6⁰C and above over most parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, some parts of Haryana, East Rajasthan, 4 to 6⁰C over most parts of Uttarakhand, Punjab, Haryana, Delhi, West Uttar Pradesh, East Rajasthan, Gujarat, Saurashtra & Kutch, East Madhya Pradesh, Arunachal Pradesh, Nagaland, Manipur, some parts of Jammu & Kashmir, Himachal Pradesh, West Rajasthan, West Madhya Pradesh, Bihar, Jharkhand, 0 to 2⁰C most parts of Raylaseema, Kerala Coastal Karnataka, Coastal & South Interior Karnataka, some parts of Gangetic West Bengal, Coastal Orissa, Andhra Pradesh, North Interior Karnataka, Konkan & Goa, Madhya Maharashtra, -2 to 0 over some parts of North & South Karnataka, 2 to 4⁰C over remaining parts of the country.



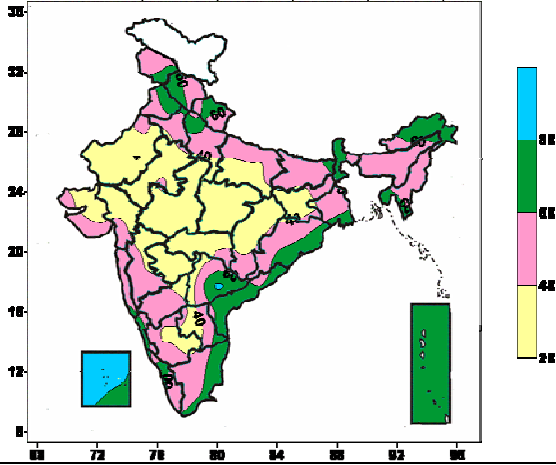
Actual Mean Minimum Temperature ranged between 26⁰C and above over most parts of Lakshadweep Islands, 18 to 22⁰C over most parts of Punjab, Haryana, Delhi, West Uttar Pradesh, North East India, some parts of East Uttar Pradesh, Bihar, Jharkhand, Chattisgarh, East Rajasthan, Madhya Pradesh, Madhya Konkan, Maharashtra, Tamil Nadu, North & South Interior Karnataka, 14 to 18⁰C over most parts of Himachal Pradesh, Punjab, Nagaland, Manipur, some parts of Jammu &

Minimum Temperature anomaly ranged 4⁰C and above over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Punjab, Delhi, Rajasthan, Sub-Himalayan West Bengal & Sikkim, some parts of West Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Madhya Pradesh, Gujarat, Saurashtra & Kutch, 0 to 2⁰C over most parts of Orissa, Andhra Pradesh, Coastal Karnataka, Tamil Nadu, Kerala, Marathwada, some prats of Chattisgarh,

Kashmir, Himachal Pradesh, 22 to 26°C over remaining parts of the Country.

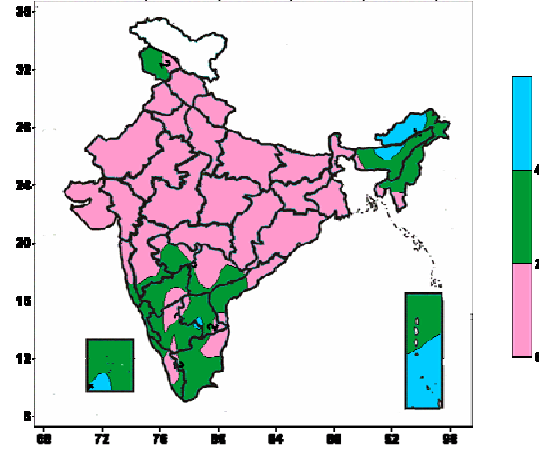
Vidarbha, West Madhya Pradesh, Madhya Maharashtra, Konkan & Goa, North & South Interior Karnataka, Andaman & Nicobar, Lakshadweep Islands -2 to 0°C over most parts of South Interior Karnataka, some parts of Tamil Nadu, Kerala, North Interior Karnataka, Marathwada, Vidarbha, 2 to 4°C over remaining parts of the Country.

Relative Humidity (%) over India for the week ending 24.03.10



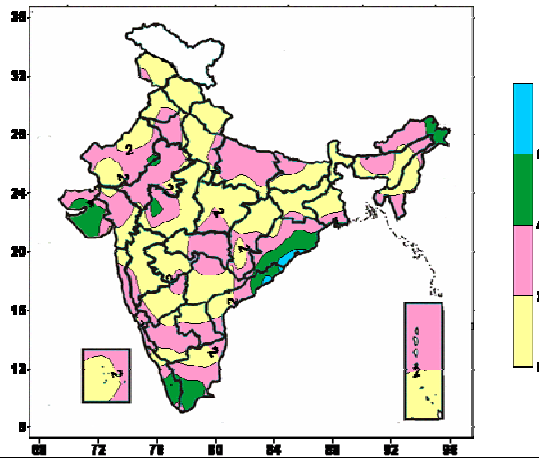
Relative humidity between 80% and above over most parts of Lakshadweep Island, some parts of Telengana, 60 to 80% over most parts of Coastal Andhra Pradesh, Coastal Orissa, Coastal Tamil Nadu, Andaman & Nicobar Island, some parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, East Uttar Pradesh, Bihar, West Bengal, Sikkim, Arunachal Pradesh, Mizoram, Tripura, Assam & Meghalaya, Rayalaseema, Telangana, Kerala, Konkan & Goa, Lakshadweep Island, 20 to 40% over most parts of Rajasthan, Madhya Pradesh, Chattisgarh, Jharkhand, Saurashtra & Kutch, Gujarat, Marathwada, Vidarbha, some parts of Haryana, Uttar Pradesh, Bihar, Gangetic West Bengal, Orissa, Telengana, Rayalaseema, Interior Karnataka, Madhya Maharashtra, 40 to 60% over remaining parts of the country.

Cloud amount (okta) over India for the week ending 24.03.10



Cloud amount 4 okta and above over Most parts of Andaman & Nicobar, some parts of Arunachal Pradesh, Assam & Meghalaya, Rayalaseema, South Interior Karnataka, Lakshadweep Island, 2 to 4 okta over most parts of Jammu & Kashmir, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Andhra Pradesh, Marathwada, Tamil Nadu, Kerala, Karnataka, some parts of Tripura, Konkan & Goa, Madhya Maharashtra, 0 to 2 okta over remaining parts of the country.

Wind speed (knots) over India for the week ending 24.03.10



Wind speed ranged between 6 knots and above over some parts of Orissa, coastal Andhra Pradesh, 4 to 6 knots over most parts of Saurashtra & Kutch, some parts of Rajasthan, West Madhya Pradesh, Arunachal Pradesh, Nagaland, Coastal Orissa, Coastal Andhra Pradesh, Kerala, Tamil Nadu, 0 to 2 knots over most parts of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, West Uttar Pradesh, Bihar, Jharkhand, West Bengal, Sikkim, Manipur, Mizoram, Madhya Pradesh, Madhya Maharashtra, Marathwada, North Interior Karnataka, Lakshadweep, Islands, some parts of Rajasthan, Haryana, East Uttar Pradesh, Assam & Meghalaya, Tripura, Gujarat, Chhattisgarh, Orissa, Konkan & Goa, Vidarbha, South Interior Karnataka, Andhra Pradesh, Kerala, Tamil Nadu, Andaman & Nicobar Island, 2 to 4 knots over remaining parts of the Country.