



Summary of Agromet Advisory Services for different States of the country
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(For the period 22nd March to 26th March, 2007)

The extended version of the bulletin is also available at <http://imdagrmet.org>

North West India (Haryana, Punjab, Rajasthan, Uttar Pradesh, Delhi, Himachal Pradesh, Jammu & Kashmir and Uttarakhand)

Punjab

Rainfall has occurred at a few places in the State during past 24 hours. There are also reports of hailstorm / thunder squall in some parts of the State with lodging / water logging in low lying areas.

Mainly dry weather is likely over the region. Slight fall in night temperature during next 1-2 days and increase thereafter.

Advisories

- As mainly dry condition prevailed in most of the districts in the State and mainly dry weather is likely over the State for next three days, apply irrigation to *rabi* oilseeds, summer sunflower, wheat and horticultural crops.
- Undertake planting of early maturing varieties of sugarcane i.e COJ 64, COH 56 and COH 92 and mid season CO 7717, COH 99 and COS 8436. For planting select only 2/3rd portion of healthy cane free from diseases.
- Monitor *rabi* oilseeds for aphid attack and if the pest population crosses ETL, spray Dimecron @ 250 ml / ha or Methyl Demiton @ 850 ml / ha.
- Attack of aphids is reported in wheat. For controlling aphids, spray Fentitrothion 50 EC @ 250 ml / ha.
- Arrange drainage in water logged fields particularly in low lying pocket to avoid further damage due to lodging and submergence.

Haryana

Rainfall has occurred at a few places in the State during past 24 hours. There are also reports of hailstorm / thunder squall in some parts of the State with lodging / water logging in low lying area.

Mainly dry weather is likely over the State. Slight fall in night temperature during next 1-2 days and increase thereafter.

Advisories

- There was no significant rainfall during last week and mainly dry weather is likely over the State for the next three days. Under the circumstance, apply irrigation to *rabi* oilseeds, summer sunflower, wheat and horticultural crops.
- Continue planting of early maturing varieties of sugarcane i.e CO J-64, COH 56 and COH 92 and mid season CO 7717, COH 99 and COS 8436. For planting select only 2/3rd portion of healthy cane free from diseases.
- Continue sowing of sunflower.
- Attack of aphids is reported in wheat. For controlling aphids, spray 250 ml Fentitrothion 50 EC in 250 liter of water per acre.

Rajasthan

Rain / thunderstorm occurred along with hailstorm at isolated places in Ajmer, Jaipur and Bikaner divisions and weather remained mainly dry in rest divisions of the State.

Mainly dry weather is likely over the State.

Advisories

- **Wheat, gram and cumin** crops have been damaged due to hail storm at isolated places in Ajmer, Bikaner and Jaipur divisions. As the crops are at maturity stage, arrange immediately for harvesting to prevent further damage. Conserve moisture in the field in the remaining divisions.
- Monitor for the attack of **pod borer in gram** and **aphids, powdery mildew and blight** attack in **cumin**. Avoid spraying as the crops are now at maturity stage.
- Start harvesting of matured crops of **mustard and barley**.

Uttar Pradesh

Weather was mainly dry in all divisions of the State. Light rain occurred at isolated places in all divisions of the State on 21st March.

Mainly dry weather is likely over the region. Slight fall in night temperature during next 1-2 days and increase thereafter in West U.P.

Advisories

- As mainly dry weather is likely over the State for the next three days, apply irrigation to **wheat** wherever crops are at grain formation stage and **winter vegetable crops (onion)**.
- **Monitor** the violet spot in **onion**. To control the disease spray the solution of Mancozeb 0.2% @ 2 gm / liter of water.
- Monitor **mango** for **hopper** and if the pest population crosses ETL, spray the solution of 1 ml Fenitrothion or Diazenon @ 2 ml / litre of water.
- Harvesting of **winter vegetables, rabi oilseeds and sugarcane** may be continued.
- Continue sowing of **summer urd, moong, maize, sunflower and sugarcane**.

Himachal Pradesh

Precipitation occurred at many places during 2nd half of the week.

Mainly dry weather is likely over the State. Slight fall in night temperature during next 1-2 days and increase thereafter.

Advisories

- As there was significant rain during last two weeks in most of the districts of the State, postpone irrigation to the crops.
- Continue land preparation and nursery sowing and transplanting of **cauliflower and cabbage** in low and mid hills and sowing of **bhindi**.
- There is mild chance of attack of powdery mildew in **vegetables**. If attack crosses economic threshold level, spray carbendazim 0.5 % to control the disease.
- There is mild chance of attack of **pod borer in gram**. If attack crosses economic threshold level, spray Monocrotophos (Monocil 36 EC/SL) or Carbaryl 50 WP (Sevin) @ 875 ml or Endosulfan 35 EC (Thiodan/Hindon/Endocel) @ 1250 ml in 625 litres of water per ha. Spraying can be repeated at 15 days interval, if the pest still persists.

Uttarakhand

Light rain was recorded at a few places on 15th and 21st March. Very light rain was recorded at many places on 20th March while mainly dry weather prevailed during rest of the week. Sky remained mainly clear during the first half and generally cloudy during second half of the week. Very light hail occurred on 21st March at isolated places.

Mainly dry weather is likely over the region. Slight fall in night temperature during next 1-2 days and increase thereafter.

Advisories

- As mainly dry condition prevailed over most of the districts in the State and mainly dry weather is likely over the State for the next three days, apply irrigation to **mango**, **potato** and **wheat** crops.
- Continue planting of **potato** in hilly areas utilizing the recent rain.
- Field preparation and sowing / ratooning of **sugarcane** may be continued.

Jammu & Kashmir

Heavy to very heavy rain snow occurred at most places on 20th & 21st March. Light rain occurred at isolated places on 19th March over J & K state.

Mainly dry weather is likely over the region. Slight fall in night temperature during next 1-2 days and increase thereafter.

Advisories

- Drain out standing water immediately from the fields of **vegetable crops**, **wheat** and **brown sarson** as heavy to very heavy rain / snow occurred at Anantnag, Doda, Jammu, Kathua, Pulwama, Srinagar, Udhampur, Kupwara and Baramullah districts during last week.
- There are chances of cold injury to standing crops in Jammu and Kashmir. In order to protect the crops from cold injury, farmers are advised to undertake the following measures.
 - Arrange for smoking near the field to safeguard the crops from cold injury.
 - Wipe out water droplets on the leaves by pulling rope from the two sides of field. This will prevent formation of ice crystals during night time.
- Rouge out loose smut and flag smut affected **wheat** and **barley** crops in Jammu and destroy them completely to prevent further spread.
- Start harvesting of matured crops of **mustard**, **gram**, **lentil** and **pea** in Jammu division.
- Start land preparation and sowing of **summer mash** and **moong** in Jammu division.

Delhi

Light to moderate rain occurred on 21st March at most places. Very light rain occurred on 20th March at many places. Weather remained mainly dry on rest of the days.

Mainly dry weather is likely over the region.

Advisories

- As there was excess rainfall during last week over the State and mainly dry weather is likely for next three days, apply light irrigation to **vegetables**, **wheat** and **barley**.
- Harvest **mustard** crop on bright sunny days when 80% siliqua are at maturity stage.
- Prepare land and perform sowing of **pumpkin**, **ladies finger**, **beans** and **Spinach**.
- Use Parbani Kranti, Pusa Savnee and Pusa Sadabahar varieties of **ladies finger** and Jobner Green, All Green and S-23 varieties of **spinach** for sowing.
- Monitor red pumpkin beetle in **cucurbits** and if attack exceeds economic threshold level, spray carbaryl 50% WP @ 750 – 1000 gms / ha.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

Rain / thundershowers occurred at isolated places on 19th March. Mainly dry weather prevailed on 20th & 21st March.

Isolated rain / thundershowers are likely over the State.

Advisories

- Apply irrigation to plantation crops viz., **coconut**, **arecanut**, **banana** and **puncha rice** as there was no significant rainfall during last week except in Pathanamthitta district and rain / thundershower is likely to occur only at isolated places for the next three days over the State. Apply irrigation depending upon soil profile stored moisture in Pathanamthitta district as there was excess rainfall during last week.
- Attack of **leaf folder**, **stem borer** and **gall midge** and **blast** and **blight** diseases is reported in **puncha rice**. Spray Carbaryl @ 2 kg / ha to control the pests. Spray Carbendazim @ 1 g / litre of water to control the diseases.
- Attack of **spindle bug** is reported in **arecanut**. Spray Carbaryl @ 4 gm / litre water to control the pest.
- Attack of **coried bug** and **leaf rot** is reported in **coconut**. Spray Sevin @ 4 gm / litre of water to control coried bug. Spray crowns and leaves with 1% Bordeaux mixture or 0.5% Copper Oxy Chloride formulation or 0.4% Mancozeb to control leaf rot. In the leaf rot affected plants, remove the rotten portions from spear and the two adjacent leaves and pour 300 ml fungicidal solution at the base of the spear which can be prepared by mixing Hexaconazole 5EC @ 2 ml or Mancozeb @ 3 gm in 300 ml of water.
- Attack of **pseudostem weevil** is reported in **banana**. In endemic area, first remove the outer sheath of all infested and uninfested plants and spray Quinalphos @ 0.05% or Chlorpyrifos @ 0.03% or Carbaryl @ 0.2%. Spraying / drenching may be done on leaf axils, rhizome, surrounding soil and all the bore holes of pseudo stem made by larvae. Repeat the treatment after three weeks if infestation persists.
- Protect the **plantation crops** from scorching by applying lime.

Tamilnadu

Dry weather prevailed on 19th, 20th and 21st March.

Mainly dry weather is likely over the State.

Advisories

- Apply irrigation to **rice**, **millet**s, **sunflower**, **maize**, **sugarcane**, **pulses**, **cotton** and **groundnut** as there was no significant rainfall for the past few weeks and dry weather is likely to prevail over the State for the next three days.
- Monitor **rice** for **stem borer** and **mealy bug** and if the pest population crosses ETL, spray Methyl Parathion 50EC @ 350 ml / ha to control stem borer and spray Dimecron 100EC @ 0.5 ml / litre of water to control mealy bug.
- Monitor **groundnut** for **aphids** and if the pest population crosses ETL, spray Dimecron 100EC or Metasystox 25EC @ 1 ml / litre of water to control the pest.
- Spray 2% DAP solution in **rice fallow pulses** to enhance pod setting.
- Continue land preparation and sowing of **summer gingelly**. Adopt 5 kg / ha seed rate for sowing. Apply M.N. mixture or Manganese Sulphate @ 5 kg / ha after sowing.

Karnataka

Mainly dry weather prevailed over coastal Karnataka on 19th March and dry weather prevailed over Interior Karnataka on 19th and 21st March. Dry weather prevailed over the State on 20th March and rainfall occurred at isolated places over Coastal Karnataka on 21st March.

Isolated rain / thundershowers are likely over the State.

Advisories

- Apply irrigation to **summer groundnut**, **sunflower**, **sugarcane** and **rice** as there was no significant rainfall during last few weeks and rain / thundershower is likely to occur only at isolated places over the State for the next three days.
- Monitor **rice** for **leaf roller**, **stem borer** and **thrips** and if the pest population crosses ETL, spray Methyl parathion 50 EC @ 350 ml / ha to control stem borer. Spray Dimecron 100 EC @ 0.5 ml / litre of water to control thrips and leaf roller.
- Monitor **groundnut** for **leaf miner** and if the pest population crosses ETL, spray Methyl Demeton @ 0.02%.
- Monitor **sugarcane** for **wooly aphids** in **Mysore**, **Mandya** and **Hassan** districts and if the pest population

crosses ETL, release *Dipha* sp, adopt wider spacing, inter-cropping with soyabean and pulses of short duration.

Andhra Pradesh

Dry weather prevailed over the state during the period.

Isolated rain / thundershowers are likely over Telangana. Mainly dry weather is likely over the rest region.

Advisories

- Attack of **Brown Plant Hopper** is noticed in **rice**. Spray Monocrotophos @ 1.6 ml / litre of water to control the pest. Incidence of **stem rot** and **sheath blight** is noticed in East Godavari district. Spray Validamycin @ 2 ml / litre of water to control the diseases.
- Continue harvesting of matured crops of **groundnut** and **red gram**. Complete harvesting **maize**.

Eastern Region (Assam, Arunachal Pradesh, Bihar, Jharkhand, Sikkim, West Bengal)

Assam

Dry weather prevailed during the period over the state.

Scattered rain / thundershowers are likely over the State during next 24 hours and isolated thereafter.

Advisories

- Maintain 3 – 5 cm water at tillering stage in the **boro rice** field.
- Mild incidence of **Hispa**, **Brown Plant Hopper**, **Yellow stem borer** and **blast** and **sheath blight** diseases in **rice** is reported in a few localities.
- Monitor attack of **Hispa**, **Brown Plant Hopper** and **blast** and **sheath blight** diseases in **boro rice**. If attack crosses economic threshold level, to control **Hispa** and **Brown Plant Hopper** insecticides like Chloropyriphos 20 E.C. @ 1.5 ml per litre of water or Phosphamidon @ 1ml per litre of water is to be applied. For management of **yellow stem borer**, *Trichogramma Japonicum* @ 50,000 per hectare in six releases is to be used. For control of **Blast** diseases as soon as 1 or 2 spots on leaf are seen Hinosan 50 E.C. @ 1ml per litre of water or Blitox @ 4gm per litre of water is to be applied and spraying is to be continued at an interval of 10-15 days till the diseases is controlled. For control of **sheath blight** diseases Carbendazim (Bavistin) @ 0.5 gm per litre of water is to be applied.
- To control rat in **wheat** field use Celphos / Quickphos tablet (1 or 2 per hole) or prepare poison bait using 80 gm Atta / Crushed Maize, 5gm Gur, 5 gm Dry fish and 5 gm Zinc Phosphate.
- Harvest already matured crops of **wheat** on bright sunny days. Wheat is ready for harvest when grain will produce cracking sound while pressed between teeth.
- Prepare land and start sowing of summer vegetables like **ladies finger**, **ridge gourd**, **cucumber** etc., transplanting of **early ahu rice** and sowing of **jute** and **maize**.
- Field should be prepared well for transplanting of **early ahu rice** and well rotten FYM or compost manure has to be applied @ 1.5 tonnes per bigha in addition to Urea @ 12 Kg, single super phosphate @ 18 Kg & MOP @ 3 Kg per bigha. The roots of uprooted seedlings are to be washed and dipped in 0.02% solution of chloriphos 40 E.C @ 1 ml per litre of water along with 1% Urea for 3 hours as a protective measure against Stem borer, Gall midge and plant hoppers. Maintain 2 – 3 cm water in the field 2 – 3 days after transplanting.
- Plough land and ladder 5 -6 times to obtain a fine seed bed for sowing of **jute**. In termite and cricket infested field the soil is to be treated with Malathion 5% dust @ 30 kg per hectare. Use seeds of varieties JRC 212, 321, 7447 etc. for sowing.
- Well drained soil is suitable for Maize cultivation. Apply Compost @ 1 tonne along with Urea @ 18 kg, SSP @ 33 kg and MOP @ 9 kg per bigha at the time of land preparation for sowing of **maize**. Use seeds of varieties Ganga-5, Hi- Starch, Campo – NLD, Naviot etc. for sowing.

Arunachal Pradesh

Sky remained mainly clear over the state. Weather was mainly dry.

Scattered rain / thundershowers are likely over the State during next 24 hours and isolated thereafter.

Warning: Thunder squall with wind speed exceeding 60 kmph likely to occur at one or two places over the State.

Advisories

- Intercultural operation may be continued in **ginger**.
- Monitor **mustard** crop for aphid infestation. The crop should be protected from aphids by spraying of Metasystox (1 ml per liter water) if it crosses economic threshold level.
- Continue field preparation and sowing of **summer vegetables** like **ladies finger** and **cucurbits**, **fox tail millet** and **maize**.

Bihar

Light rain occurred at a few places on 15th March.

Mainly dry weather is likely over the State.

Advisories

- Mainly dry weather is likely over the State for the next three days. Under the circumstances, apply irrigation to **maize** and **wheat**.
- Prepare land and continue sowing of summer vegetables like **bhindi**, **bottle gourd**, **sponge gourd**, **maize** and **moong**.
- Maintain 3 – 5 cm standing water in the **boro rice** field.
- Start harvesting of already matured **wheat** crop. Wheat is ready for harvest when grain will produce cracking sound while pressed between teeth.
- Monitor **rabi maize** for pest and diseases and if there is considerable symptom of leaf blight above economic threshold level on leaves spray Mancozeb @2.5 Kg / ha.

Jharkhand

Mainly dry weather is likely over the State.

Advisories

- As there was no significant rain during last week over the State and mainly dry weather is likely over the State for the next three days, apply irrigation to **maize** and **wheat** crops.
- Monitor **wheat** for **termite** attack. Spray Chlorpyrifos @ 2.5 ml / litre of water.
- Continue harvesting of the matured **pulse** crops.
- Maintain 3 – 5 cm water in the **boro rice** field.

Sikkim

Sky remained partly cloudy during the period. No rain occurred during the week.

Scattered rain / thundershowers are likely over the State.

Advisories

- Apply irrigation to **wheat**, **large cardamom**, **orange** and **vegetable crops** as there was no significant rainfall during last week.
- Monitor **large cardamom** for **stem borer** and if the pest population crosses ETL, spray Endosulfan 35EC @ 1 ml / litre of water on a non rainy day to control the pest. Remove **Chirkey** and **Foorkey** affected plants and destroy the affected plants completely.
- Continue land preparation and sowing of **maize** and **ginger**. Line sowing may be undertaken in maize to ensure plant population. Arrange for drainage facilities in ginger to avoid rhizome rot during early stage.
- Undertake intercultural operations, application of fertilizers and pesticides in **orange**, **large cardamom** and **vegetable crops** on a non rainy day.

West Bengal

During the said period very light rain occurred at isolated places on 20th over Gangetic West Bengal. Weather was mainly dry over rest of the period.

Scattered rain / thundershower are likely over Sub-Himalyan west Bengal & isolated over Gangetic West Bengal during next 24 hours and mainly dry weather thereafter.

Advisories

- As there was no significant rain in the State during last week and scattered rain / thundershowers are likely over Sub-Himalyan west Bengal & isolated over Gangetic West Bengal during next 24 hours and mainly dry weather thereafter, apply irrigation to **sugarcane** and early sown **sesamum**, **groundnut** and **green gram** wherever crops are at vegetative stage.
- Continue harvesting of already matured crops of **wheat** on bright sunny days. Wheat is ready for harvest when grain will produce cracking sound while pressed between teeth.
- Apply second split dose of 25 – 30 kg N / ha at 6 weeks after transplanting of **boro rice**. Maintain 3 – 5 cm water in the field after 2 – 3 days of application of fertilizer.
- There is mild chance of infestation of Brown Plant Hopper in **boro rice** during this time. If infestation exceeds economic threshold level, apply Endosulphon 2% dust on a non-rainy day to control the insect. After 7-10 days spray Emidacloprid 17.6% @ 1 ml / 7.5 litres of water. 750 litres of water will be required for 1 hectare of land.
- Prepare land and complete sowing of **sesamum**, **groundnut** and **green gram**.
- Select improved variety from Rama, Tilottoma, HT-1 etc. for sowing of **sesamum**. Seed rate is 6 - 7.5 kg per ha. Seeds may be sown at row spacing of 30 cm distance. No fertilizer is required if it is sown after harvesting of potato crop. Otherwise apply FYM @ 12 – 15 cart per ha and 25 kg N, P₂O₅ and K₂O each per ha.
- Select improved variety from JL24, J-11, A.K-12-24 etc. for sowing of **groundnut**. Seed rate is 110 - 125 kg per ha. Seeds may be mixed by 7.5 packets of 200 gm each of Rhizobium culture followed by sundrying.
- Select improved variety from K-851, Panna, Sonali, Pusha, Baishalkhi etc. for sowing of **green gram**. Seed rate is 25 - 30 kg per ha. Seeds may be mixed with 4 – 5 packets of 200 gm each of Rhizobium culture followed by sundrying.
- Prepare land for sowing of **jute** in North Bengal. Apply compost manure @ 7.5 – 12.5 tonnes / ha. Apply N, P₂O₅ and K₂O each @ 25 kg / ha also before last land preparation. Select improved variety from Shyamali, Sonali & Sobujsona etc. for *C. capsularis* and Chaitali, Basudev, Baisakhi, Nabin etc. for *C. olitorius* for sowing. Seed rate is 7.5 kg per ha for *C. capsularis* and 5 kg per ha for *C. olitorius*.
- Seeds may be treated with 1 gm carbendazime per kg of seeds before sowing.

Central Region (Gujarat, Chhattisgarh, Maharashtra, MP & Orissa)

Gujarat

Weather was dry over the State during the period.

Mainly dry weather is likely over the State.

Advisories

- As there was no significant rain in the State during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **new sugarcane crop**, **summer groundnut** and **summer bajra** to bring the soil moisture to field capacity.
- Maintain 3 – 5 cm water in the **rice** field. Apply 30 kg N / ha as a supplementary dose to the crop.
- Continue harvesting of **Kharif cotton**, **Castor** and **Wheat**.
- Apply 75 kg N / ha as top dressing at 45 days after planting of new **sugarcane** crop.
- Apply 60 kg N as a supplementary dose after 30 days from sowing of **summer bajra**.

Chhattisgarh

Weather remained dry over the state.

Mainly dry weather is likely over the State.

Advisories

- As there was no significant rain in the State during last week and mainly dry weather is likely for next three days, apply irrigation to **new sugarcane crop** and **vegetables** and also to **sunflower**, **summer groundnut**, **sesamum** and **green gram** wherever crops are at vegetative stage.
- Apply 75 kg N / ha as top dressing at 45 days after planting of **sugarcane**.
- Apply 30 kg Nitrogen / ha after 25 - 30 days from sowing of **sunflower**.
- Apply second split dose of 25 – 30 kg N / ha at 6 weeks after transplanting of **summer rice**. Maintain 3 – 5 cm water in the field at tillering stage.
- Continue preparation of land and sowing of **summer vegetables** like **ladies finger**, **pumpkin**, **barbati** etc.

Maharashtra

Mainly dry weather prevailed all over the State.

Isolated rain / thundershowers are likely over South Konkan during next 24 hours and mainly dry weather thereafter. Weather will be mainly dry over rest of the State.

Advisories

- As there was no rain during last few weeks in the State and only isolated rain / thundershowers are likely over South Konkan during next 24 hours and mainly dry weather will prevail over rest of the State for next three days, apply irrigation to **sugarcane (Pre-seasonal)**, **summer groundnut**, **summer sunflower**, **summer bajra**, **summer maize** and **sugarcane (Suru)**.
- Apply 140 kg Nitrogen / ha along with 85 kg each of P₂O₅ and K₂O at the time of earthing up in **sugarcane (Pre-seasonal)**.
- Second dose of 125 kg Gypsum / ha may be applied after 30 days after sowing of **summer groundnut**. Undertake intercultural operation wherever crops are at vegetative or flowering stage (within 6 weeks of sowing) to keep the field weed free.
- 20 kg Blue green Algae / ha may be applied in **summer rice** field after 10 days from transplanting in Vidarbha. Maintain 3 – 5 cm water in the field at tillering and flowering stage. Second dose of 40 kg Nitrogen / ha may be applied after 30 days from transplanting. Use 1 kg Neem cake powder in 6 kg urea at the time of above application. Water may be drained out before fertilizer application & maintain water level after 2 days.
- Apply 30 kg Nitrogen / ha after 25 - 30 days from sowing of **summer sunflower**.
- Apply 45 kg Nitrogen / ha after 25 - 30 days from sowing of **summer bajra**.
- Second dose of 100 kg Nitrogen/ha may be applied after 6 to 8 weeks from transplanting of **sugarcane (Suru)**. Use 1 kg Neem cake powder with 6 kg Urea at the time of application.
- Mild incidence of **sap sucking insects** and **tikka disease** in **Latur** in summer groundnut and **stem borer** in **Raigad** district in rice is reported.
- Monitor **summer groundnut** for sap sucking insects and if exceeds economic threshold level, spray Chlorpyrifos or Rogor @ 15 ml in 10 liters of water. Use 500 liters of above solution for spraying one hectare of land.
- Monitor **summer groundnut** for **tikka disease** and if exceeds economic threshold level, spray Carbendazim (Bavistin) @ 5 gm or Tridemorf @ 7 ml in 10 liters water. Use 500 liters above solution for spraying one hectare of land.
- Monitor **rice** crop for **stem borer** and if exceeds ETL, use 10G Phorate @ 10 kg or 5G Quinolphos @ 15 kg powder / ha or spray Fenitrothion 50% WSC @ 800 ml / ha in 500 liters of water.

Madhya Pradesh

Rainfall occurred at isolated places in North West M.P. on 21st March. Dry weather prevailed over rest of the State on remaining period.

Mainly dry weather likely over the State.

Advisories

- Start harvesting of matured crop of *irrigated wheat*.
- Start land preparation and sowing / planting of *summer moong* and *sugarcane*. Undertake seed treatment with *Rhizobium* before sowing moong. Do sett treatment with *Azospirillum* before planting sugarcane.

Orissa

Weather was dry over the State during the above period.

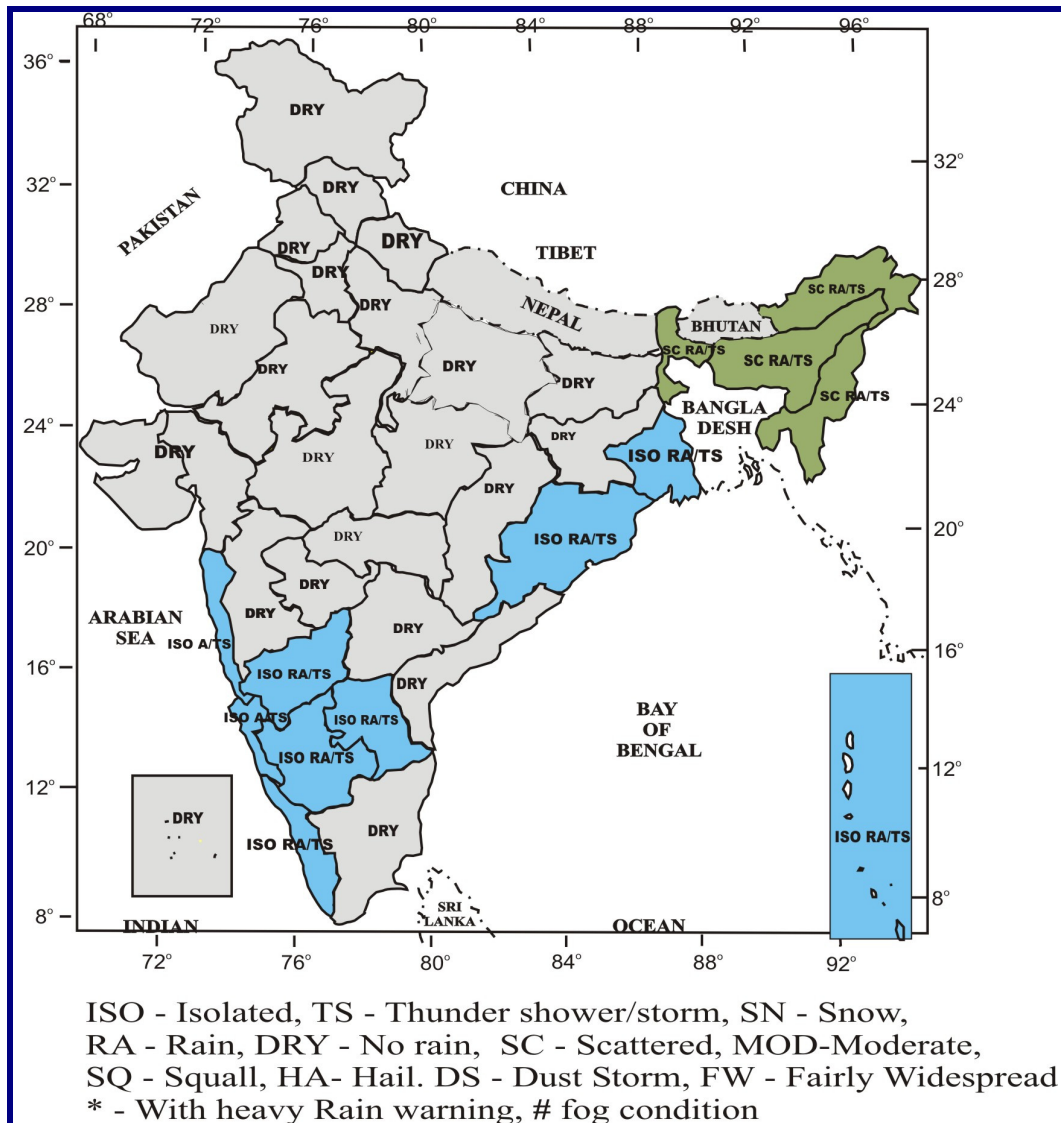
Isolated rain / thundershowers are likely over the State during next 24 hours and mainly dry weather thereafter.

Warning: Thunder squall likely to occur at isolated places over the State during next 48 hours.

Advisories

- As weather was dry during last week and isolated rain / thundershowers are likely over the State during next 24 hours and mainly dry weather thereafter, apply irrigation to *vegetables, sugarcane* and *pulses*.
- Prepare land with basal application of 8 kg N, 16 kg P₂O₅ and 16 kg K₂O / acre and continue sowing of *summer groundnut*.
- Continue sowing of *summer moong* with basal application of 8 kg N, 16 kg P₂O₅ and 8 kg K₂O / acre.
- Monitor the infestation of *Spodoptera* in summer pulse crop. To manage the pest, spray Chloropyriphos @ 2 ml per litre of water. To control the *Yellow vein mosaic* spray methyl demeton @ 2 ml per litre of water.

Forecast Map Valid upto 25th March 07



Salient weather features for the week ending 21/03/07

METEOROLOGICAL ANALYSIS

- Last week's induced cyclonic circulation at lower levels over East Uttar Pradesh and adjoining East Madhya Pradesh due to the western disturbance became less marked on 15th. However, an upper air through in lower levels ran from west Assam to Mizoram on 15th and 16th and became less marked on 17th.
- A western disturbance as an upper air system lay over north Pakistan and neighbourhood on 17th & 18th. Moving eastwards, it lay over north Pakistan and adjoining Jammu & Kashmir on 19th & 20th and over Jammu & Kashmir and neighbourhood on 21st. An induced cyclonic circulation at lower levels due to this system lay over south Pakistan and adjoining West Rajasthan during 19th to 20th and over central Pakistan and adjoining Punjab & Rajasthan on 21st.
- Strong northwesterly winds at lower tropospheric levels prevailed over Indo-Gangetic plains during 15-17th.

- A trough in the westerlies at 500 hPa level ran roughly along 77° E to the north of 20° N on 15th. It moved eastwards and ran roughly along 95° E to the north of 20° N on 18th. It moved away eastwards thereafter.
- A weak trough in easterlies lay over extreme south peninsula during many days of the week.

RAINFALL

- Fairly widespread/widespread rain/snowfall occurred over Western Himalayan region on 20th & 21st. It was isolated to scattered on 15th, 18th and 19th over this region.
- Isolated to scattered rain/thundershowers occurred over plains of northwest India and Rajasthan on 20th and 21st.
- Isolated to scattered rain/thundershowers occurred over east India, north Madhya Pradesh and Chhattisgarh on 15th. Isolated rain/thundershowers also occurred over Orissa and Gangetic West Bengal on 16th.
- Isolated to scattered rain/thundershowers occurred over northeastern States during 15-17th.
- Isolated rain/thundershowers occurred over Kerala on many days during the week.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

MINIMUM TEMPERATURES

- Cold wave condition prevailed over some parts of East Uttar Pradesh and Jharkhand on 16th and over Bihar, Gangetic West Bengal, Jharkhand and Orissa on 17th. The minimum temperatures were below normal by 3-4 °C over the remaining parts of east India during 16-19th and over northeast India during 17-19th. They were normal during remaining days of the week.
- The minimum temperatures over northwest & central India were below normal by 2-5 °C in the beginning of the week. With the rise in temperature they became normal during mid-week and above normal by 2-5 °C towards the end of the week.
- They were above normal over west India by 2-5 °C during many days of the week.
- They were normal over south India throughout of the week.

MAXIMUM TEMPERATURES

- The maximum temperatures over northwest & central India were below normal by 3-6 °C during first half of the week. They became normal over northwest India and above normal by 2-4 °C over central India during second half of the week.
- While they were above normal by 2-4 °C over Gujarat and Rajasthan, they were below normal 2-5 °C over east India during many days of the week.
- They were normal on many days over remaining parts of the country.

RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 21ST MARCH, 2007)

Rainfall was excess/normal in 4, deficient/scanty in 17 and no rain in 15 out of 36 meteorological sub-divisions (Actual: 6.0 mm, Normal: 7.8 mm and Departure: -22%).

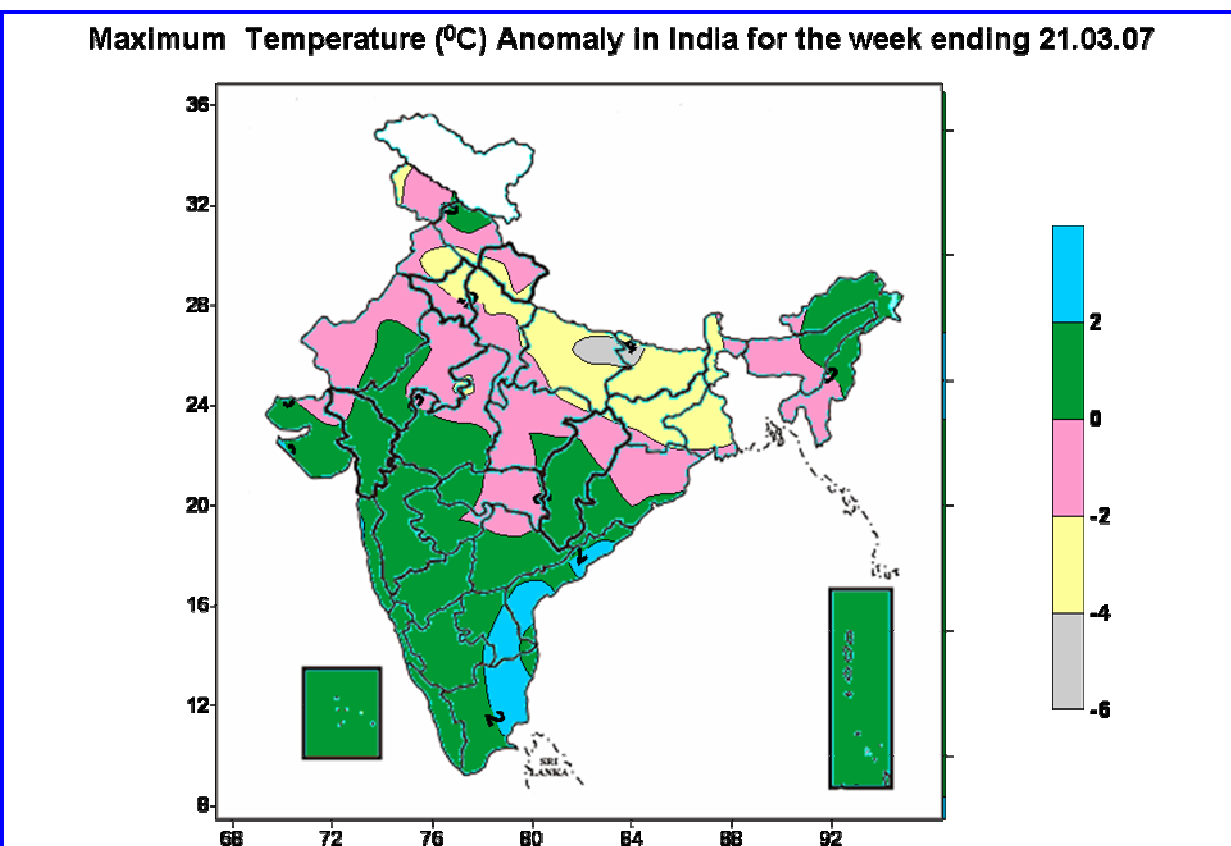
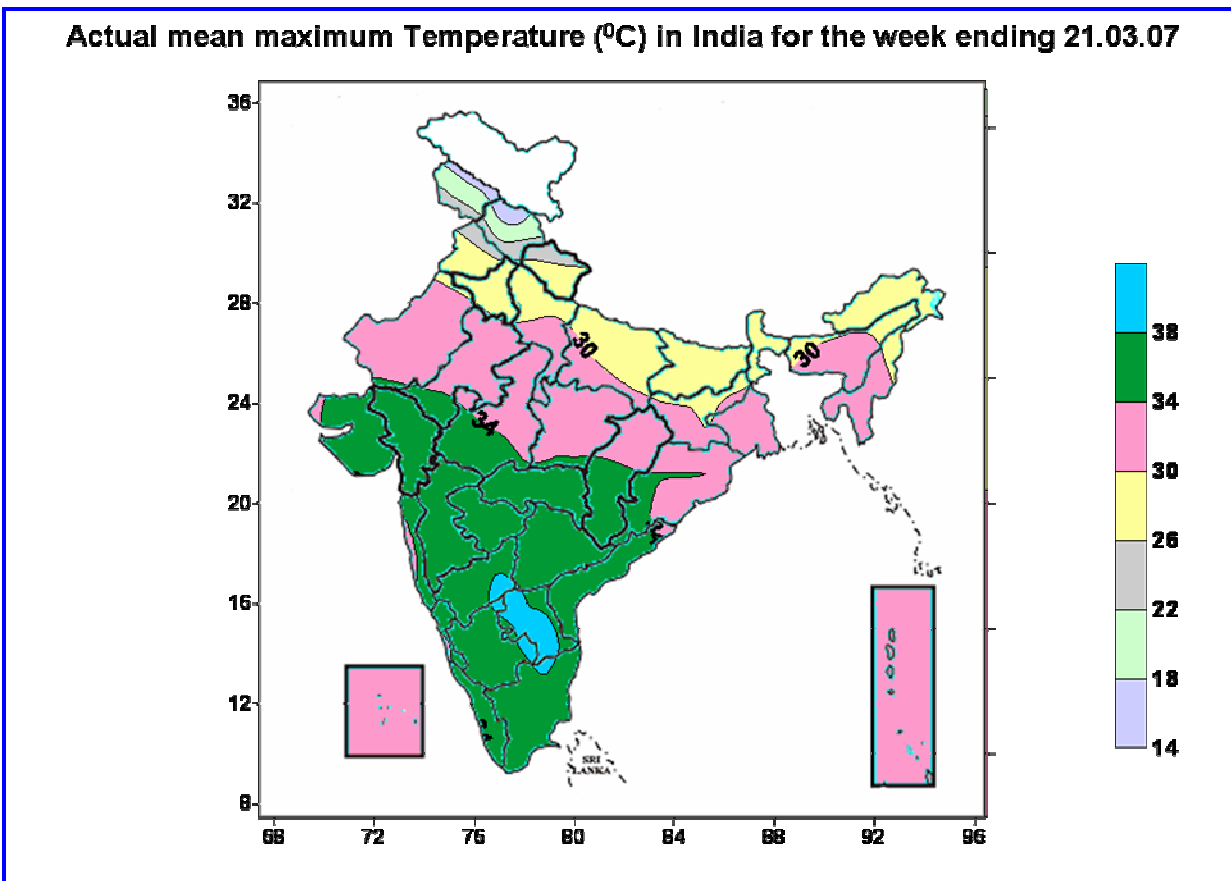
CUMULATIVE SEASONAL RAINFALL (1ST MARCH TO 21ST MARCH, 2007)

Rainfall was excess/normal in 16, deficient/scanty in 15 and no rain in 5 out of 36 meteorological sub-divisions. (Actual: 30.7 mm, Normal: 19.9 mm and Departure: +54%).

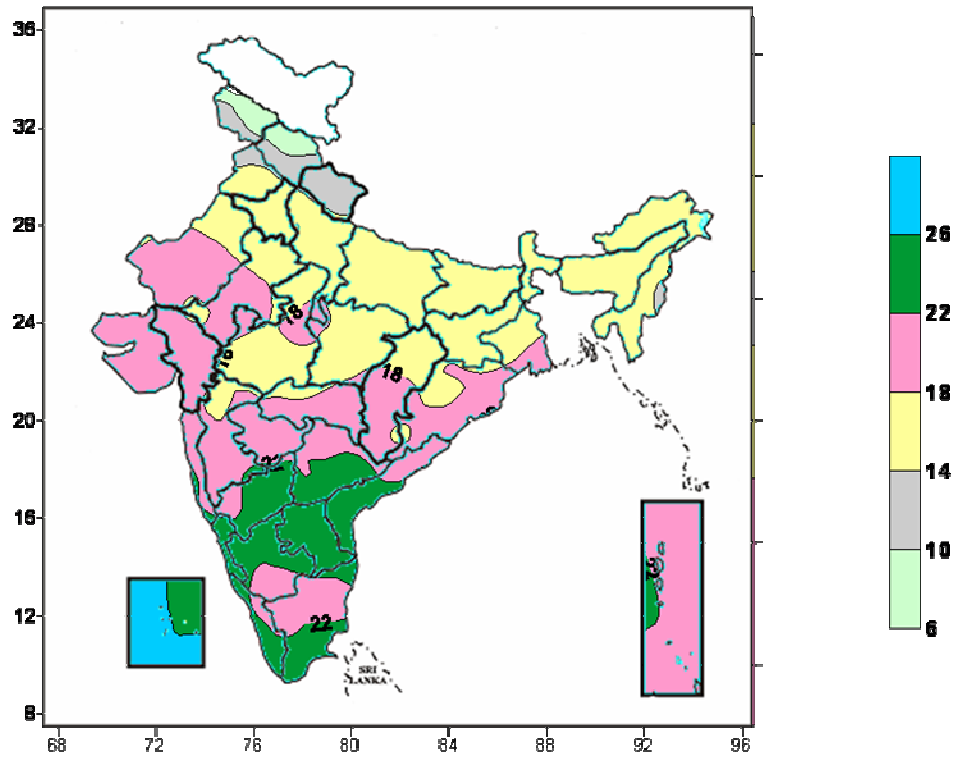
OUTLOOK FOR THE WEEK ENDING ON 28TH MARCH, 2007.

- Decrease in rainfall activity over northeastern States.
- Rise in day temperature over Indo-Gangetic plains. Fall in night temperature during first half and rise thereafter over the above region.

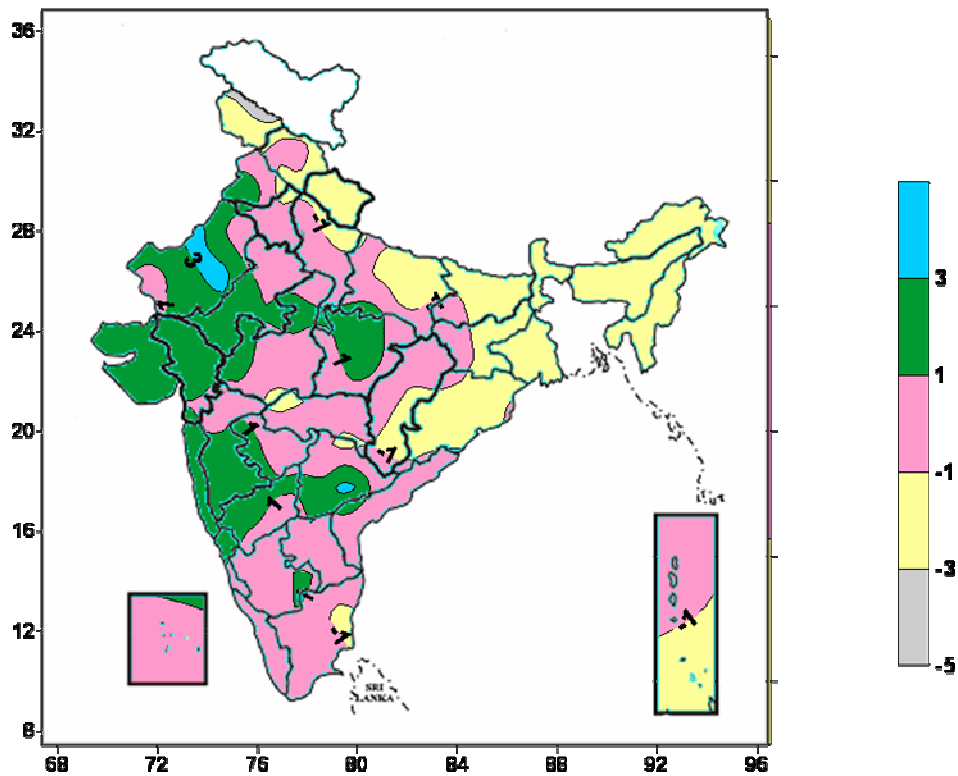
Contour maps for the week ending 21st March, 2007



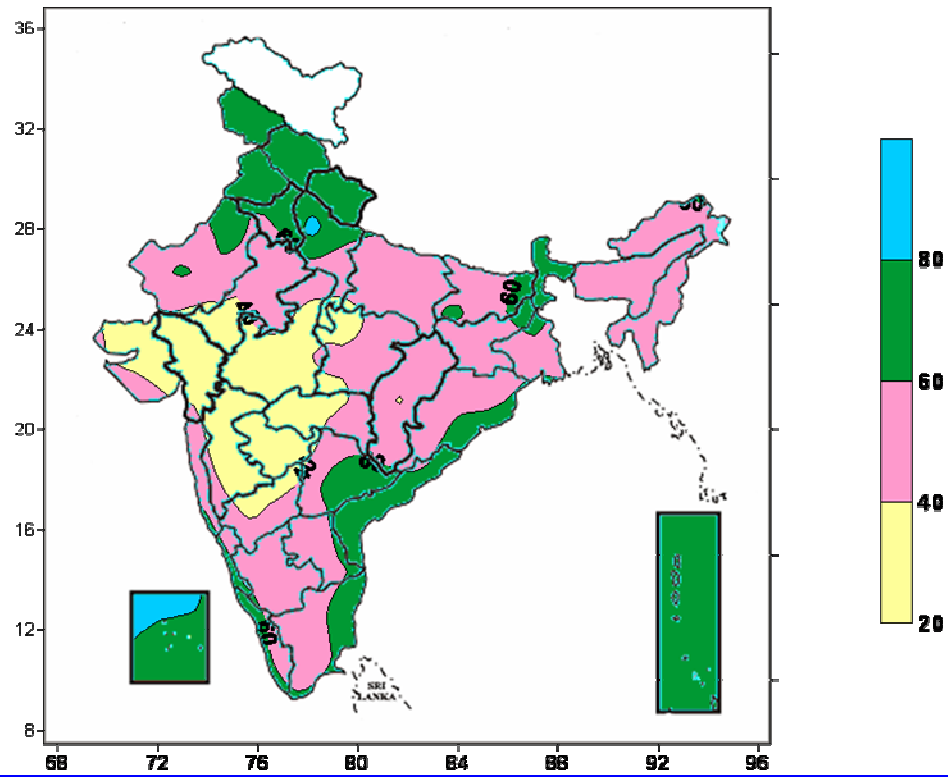
Actual mean Minimum Temperature ($^{\circ}\text{C}$) In India for the week ending 21.03.07



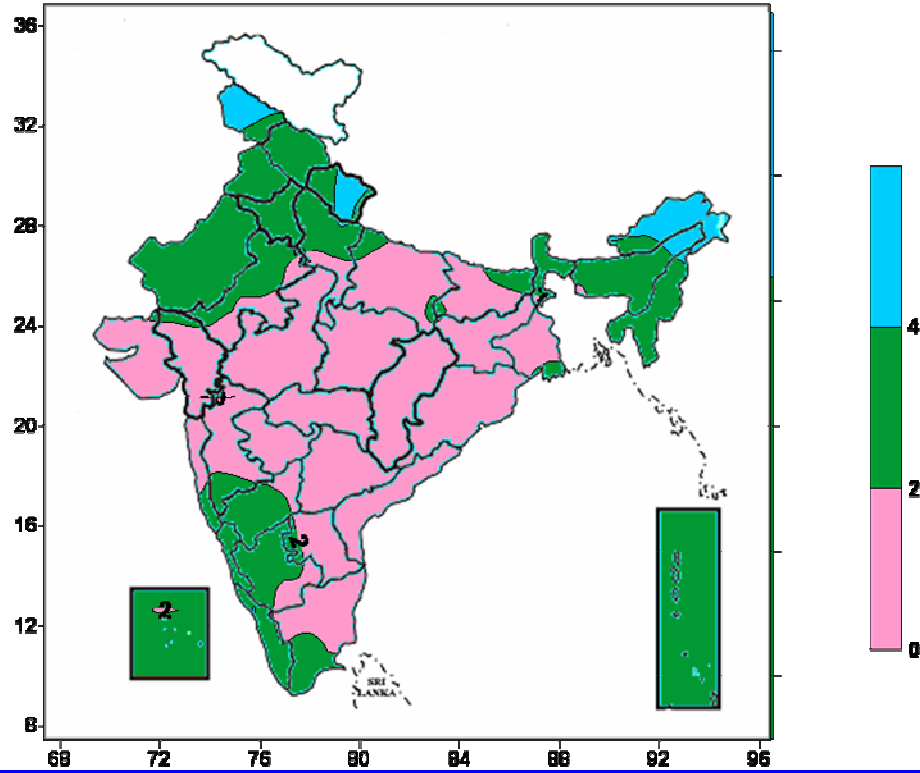
Minimum Temperature ($^{\circ}\text{C}$) Anomaly In India for the week ending 21.03.07



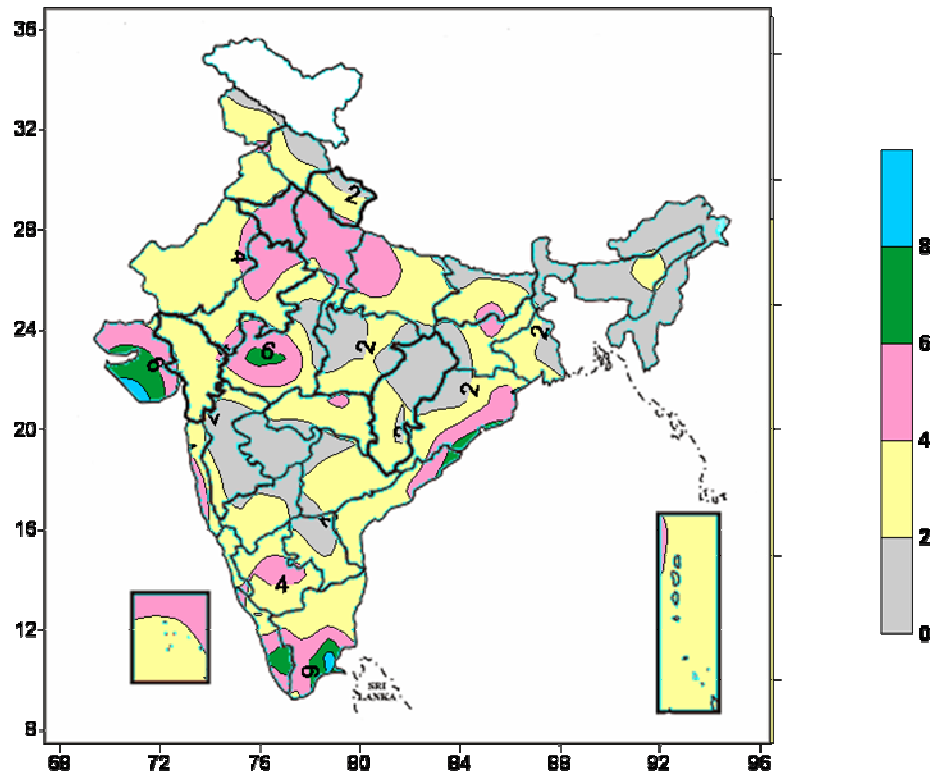
Relative humidity (%) over India for the week ending 21.03.07



Cloud amount (okta) over India for the week ending 21.03.07



Wind speed (knots) over India for the week ending 21.03.07



Desert Locust Forecasting



Rainfall (mm)

Station Name	15.03.07	16.03.07	17.03.07	18.03.07	19.03.07	20.03.07	21.03.07
Amritsar	-	-	-	-	-	0.5	4.5
Barmer	-	-	-	-	-	-	-
Sriganganagar	-	-	-	-	-	-	1.0
Jaisalmer	-	-	-	-	-	-	-
Kota	-	-	-	-	-	-	-
Deesa	-	-	-	-	-	-	-
Churu	-	-	-	-	-	-	-

Temperature (degree Celcius)

Station Name	15.03.07	16.03.07	17.03.07	18.03.07	19.03.07	20.03.07	21.03.07
Amritsar	14.5	-	16.5	19.0	18.5	19.5	20.5
Barmer	22.0	23.5	-	28.0	29.5	27.0	26.5
Sriganganagar	16.5	18.5	-	22.0	25.0	-	-
Jaisalmer	21.5	24.0	26.0	27.0	27.5	24.5	23.0
Kota	22.0	22.5	25.5	27.5	29.5	23.0	30.0
Deesa	24.0	-	26.5	29.0	27.5	31.0	27.0
Churu	-	-	-	-	-	-	-

There is no chance of locust infestation in Rajasthan and the adjoining areas during this week.

CROP – STATE – STAGE

Delhi

Barley	Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot, and turnip)	Early sown vegetable crops	Wheat	Mustard
Grain formation	Sowing/ Transplanting	Vegetative/ flowering/ fruiting/ harvesting	Flowering / milk	Seed maturity / harvesting
Gram				
Pod maturity / harvesting				

Haryana

Horticultural crop	Sugarcane	Gram /Lentil	Rabi oilseeds	Wheat
Vegetative	Vegetative	Pod formation / maturity	Pod formation / maturity	Flowering/ grain formation
Toria	Sunflower			
Harvesting	Sowing			

Himachal Pradesh

Wheat	Gram	Summer vegetables (Cauliflower, Cabbage in low and mid hills)	Vegetables (Tomato, brinjal, ladies finger)	Barley
Flowering	Pod formation	Nursery sowing /Transplanting	Vegetative/flowering / fruiting / harvesting	Flowering
Onion	Rape seeds and Mustard	Fruit plants		
Bulb formation	Pod maturity	Prune		

Jammu & Kashmir

Vegetable crops	Brown Sarson	Wheat / Barley (in Kashmir division)	Pea/Lentil/ Mustard	Wheat / Barley (in Jammu)
Fruiting/ Harvesting (in Jammu Division) Vegetative- in Kashmir Division	Flowering / seed formation – in Kashmir Division	Flowering	Maturity / harvesting	Grain development
Fruit crops	Summer mash and moong			
Plantation	Sowing			

Punjab

Sugarcane	Early sown Sugarcane	Gram/Lentil	Horticultural crop	Wheat
Sowing	Vegetative	Pod formation / maturity	Vegetative	Grain formation / Milking
Toria	Summer Sunflower	Rabi oilseeds		
Harvesting	Early vegetative	Pod formation / maturity		

Rajasthan

Mustard	Wheat	Cumin	Gram	Barley
Harvesting	Grain maturity	Seed Maturity	Pod Maturity	Harvesting

Uttar Pradesh

Wheat / Barley	(Pulses and Maize /Summer pulses)	Sugarcane	Summer Sugarcane	Winter Vegetables
Grain formation/ maturity (early varieties) Grain formation (late varieties)	Harvesting / Sowing (Moong,Urad)	Sowing	Field preparation	Flowering/harvesting
Rabi Oilseeds(Rai and Mustard)	Early sown Summer crop	Summer Sunflower	Early Summer Vegetables	Summer Vegetables
Harvesting	Seedling /Early vegetative	Sowing	Seedling	Sowing
	Mango			
	Flowering / Fruit setting			

Uttarakhand

New crop Potato	Mango/Litchi/ Apple	Wheat	Sugarcane	Potato
Germination/Vegetative growth	Flowering	Flowering/Milky	Sowing and ratooning	Germination / vegetative growth

Assam				
Summer vegetables	Sugarcane	Wheat	Boro Rice	Early Ahu rice
Sowing	Harvesting	Maturity	Milk / dough	Transplanting
Early Summer vegetables	Jute	Maize		
Germination/ early vegetative	Land preparation/ Sowing	Land preparation/ Sowing		

Arunachal Pradesh				
Mustard	Ginger	Potato	Wheat	Summer vegetables
Pod formation/Maturity	Vegetative	Harvesting	Grain formation	Sowing
Foxtail millet	Maize	Direct Seeded Ahu Rice		
Land preparation / sowing	Land preparation / sowing	Land preparation / sowing		

Bihar				
Summer Vegetables/ Fruit crops	Boro Summer Rice	Wheat	Potato	Rabi Maize
Sowing	Early vegetative/tillering	Grain formation / maturity	Harvesting	Cob formation / maturity
Summer Maize			Rabi Oil seeds (Sarson, Linseed)	Rabi Pulses (Lentil, Gram, Pea)
Sowing Early sown crops- Germination/ early vegetative			Maturity/Harvesting	Maturity/Harvesting

Jharkhand			
Boro rice	Rabi Maize	Wheat	Potato
Early vegetative/tillering	Cob formation	Grain formation/milking	Tuber Maturity
Rabi vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)	Summer vegetables	Rabi pulses and oilseeds (Gram, masoor, lentil, linseed, oat, mustard and kusum)	
Harvesting	Sowing	Maturity/Harvesting	

Sikkim				
Maize /Ginger	Mustard	Summer vegetables	Wheat	Large Cardomom
Sowing	Siliqua Maturity	Sowing	Grain formation/ development	Early flowering
Orange	Early sown vegetables			
Early flowering	Early vegetative			

West Bengal				
Boro rice	Wheat	Sesamum	Groundnut	Green gram
Tillering/Panicle initiation / flowering	Maturity / harvesting	Sowing	Sowing	Sowing
New Crop Sugarcane	Early sown Sugarcane	Early sown Sesamum	Early sown Groundnut	Early sown Green gram
Planting	Sprouting/Early vegetative/Vegetative	Germination/Early vegetative	Germination/Early vegetative	Germination/Early vegetative
Jute				
Land preparation / sowing				

Chattisgarh				
Gram, Mustard	Vegetables (Tomato, chilli, brinjal)	Green gram	Sugarcane	Wheat
Harvesting	Fruiting / harvesting	Germination / early vegetative / vegetative	Sprouting/Early vegetative/vegetative	Maturity/Harvesting
Sunflower, Groundnut	Early Sown Sunflower	Summer Vegetables	Summer rice	Linseed
Germination / early vegetative / vegetative	Germination / early vegetative / vegetative	Sowing	Tillering	Harvesting
Summer sesamum	Early sown Summer sesamum	Green Gram	Early sown Green Gram	
Germination / early vegetative / vegetative	Germination / early vegetative / vegetative	Field preparation/Sowing	Germination/Early vegetative	

Gujarat				
Kharif Cotton	Wheat	Rice	Castor	Bajra
Picking	Maturity/ Harvesting	Early vegetative/Tillering	Harvesting	Early vegetative / tillering

Mustard	Summer Groundnut	New Sugarcane		
Harvesting	Early vegetative/ Vegetative	sprouting / early vegetative / vegetative		

Maharashtra

	Rabi Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	Safflower (Madhya Maharashtra, Marathwada & Vidarbha)	Wheat (Madhya Maharashtra, Marathwada, Vidarbha & Konkan)	Rabi Maize (Madhya Maharashtra, Marathwada, Vidarbha & Konkan)
	Harvesting	Harvesting	Maturity/Harvesting	Cob maturity/Harvesting
Rabi Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Onion (Madhya Maharashtra, Marathwada & Vidarbha)	Summer Groundnut (Madhya Maharashtra, Marathwada, Vidarbha & Konkan)	Summer Rice (Konkan, Vidarbha & Kolhapur dist.)
Seed maturity / harvesting	Early vegetative/active growth	Harvesting	Early vegetative/ Vegetative / flowering (Flowering/ pegging in Thane, Raigad & Ratnagiri & Pegging / pod formation in Sindhudurga district)	Early tillering / tillering – in Vidarbha. Flag leaf initiation in Thane, Raigad, & Ratnagiri dist. / Panicle initiation / flowering– in Sindhudurg dist.
Summer Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)	Summer Bajra (Madhya Maharashtra, Marathwada & Vidarbha)	Summer Maize (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marathwada and Vidarbha)	
Early vegetative / vegetative / vegetative (floral bud formation in Latur)	Early vegetative / vegetative (flag leaf initiation in Nasik)	Early vegetative / Vegetative	Sprouting/Early vegetative	

Madhya Pradesh

Irrigated Wheat	Summer moong and sugarcane			
Harvesting	Sowing / planting			

Orissa

Vegetables	Dalua Rice	Mustard	Pulses	Summer pulses
Flowering / Fruiting / Harvesting	Tillering / panicle initiation / panicle emergence	Pod maturity/Harvesting	Pod formation Maturity	Germination/Early vegetative
Early sown Sugarcane	Sugarcane	Rabi Groundnut		
Harvesting	Early vegetative	Pod maturity/Harvesting		

Andhra Pradesh

Rabi Groundnut	Rabi Maize	Gram	Rabi red gram	Rabi rice
Pod harvesting	End Harvesting	Harvesting	Pod harvesting	Grain formation

Karnataka

Sugarcane (Ratoon crop)	Rabi Jowar and Wheat	Sunflower	Summer groundnut	Summer rice
Vegetative	Harvesting	Budding	Vegetative	Transplanting (some places) / Tillering

Kerala

Rubber	Puncha rice			
Tapping	Panicle initiation			

Tamil Nadu

Rice (Navarai)	Early planted Sugarcane	Cotton	Rice fallow Pulses (Black and Green gram)	Oilseeds (Groundnut)
Flowering	Vegetative	Vegetative	Pod formation	Vegetative
Sunflower	Summer gingelly/ Maize	Early sown Summer gingelly /Maize		
Vegetative	Sowing	Vegetative		