



**Summary of Agromet Advisory Services for different States of the country**  
**Issued by**  
**Agricultural Meteorology Division, India Meteorological**  
**Department, Pune, India**

**Thursday, 15<sup>th</sup> February, 2007**

(For the period 15<sup>th</sup> February to 19<sup>th</sup> February, 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**

Widespread rain with moderate to rather heavy rainfall intensity has occurred in almost all districts of the State during the last three to four days.

Isolated rain / thundershower is likely over the State during next 24 hours. Mainly dry weather is likely to prevail thereafter.

**Advisories**

- As there was excess rainfall in most of the districts of the State during last week, postpone irrigation to the crops.
- Attack of **late blight** is reported in **potato**. In order to check further spread of the disease, spray Dithane M-45 @ 500 g/acre.
- Monitor **rabi oilseeds** for **aphids** attack and if the pests population crosses ETL, spray Dimecron @ 250 ml/ha or Methyl Demiton @ 850 ml/ha.
- Spray one litre Endosulfan 35 EC in 650 litres of water to control **aphids** in **wheat**.
- Monitor the **pulse** crops for **pod borer** attack and if the pest population crosses ETL, spray Endosulphan @ 500-750 ml/ha.

**Haryana**

Widespread rain with moderate to rather heavy intensity has occurred almost in all the districts of the State in last two to three days.

Isolated light rain / thundershowers also likely over north Haryana during next 24 hours. Mainly dry weather is likely to prevail thereafter.

**Advisories**

- As there was excess rainfall in the State during last week, postpone irrigation to the crops.
- Continue sowing of **sunflower**.
- Attack of **late blight** is reported in **potato**. In order to check further spread of the disease, spray Dithane M-45 @ 500 g/acre.
- Attack of **stem borer** and **termite** is reported in **wheat**. Spray Endosulfan 35 EC @ 1.5 ml/litre of water to control stem borer.
- Apply Aldrin 30 EC @ 5 litres/ha in irrigation water to control **termite** in **wheat**.
- Monitor the **pulse** crops for **pod borer** attack and if the pest population crosses ETL, spray Endosulphan @ 500-750 ml/ha.

**Rajasthan**

Rain / thundershowers recorded with hailstorm at isolated places in the State.

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

**Warning:** Hail storm may occur at isolated places in Bikaner division.

#### **Advisories**

- Apply irrigation to **mustard, wheat, gram, cumin** and **barley** as rain / thundershowers is likely to occur only at isolated places for the next 24 hours and mainly dry weather thereafter over the State.
- Monitor **gram** for **pod borer** and if the pest population crosses ETL, spray Monocrotophos or Endosulphan @ 1 ml/litre of water.
- Cloudy weather conditions are favourable for **aphids** attack in **cumin** and if the pest population crosses ETL, undertake plant protection measures.
- Monitor **mustard** for **aphids** attack and if the pests population crosses ETL, spray Endosulphan @ 1.25 litres / ha.

#### **Uttar Pradesh**

Light to moderate rain occurred at most places in all divisions of the State on 12<sup>th</sup> and 14<sup>th</sup> February; Light to moderate rain occurred at isolated places in **Faizabad, Lucknow** and **Agra** divisions and weather was mainly dry in remaining divisions of the State on 13<sup>th</sup> February.

Mainly dry weather is likely over the State.

#### **Advisories**

- As there was no significant rain during last few weeks in Ambedkar Nagar, Azamgarh, Ballia, Balrampur, Barabanki, Basti, Deoria, Faizabad, Farrukhabad, Gonda, Hardoi, Kushi Nagar, Maharajganj, Pratapgarh, Rae Bareilly, Sant Ravidas Nagar districts in East Uttar Pradesh and Etawah, Ghaziabad, Jalaun, Jhansi, Jyotirba Phule Nagar, Maghamaya Nagar and Matura districts in West Uttar Pradesh and mainly dry weather is likely over the State for next three days, apply irrigation to **rabi oilseed crops, pulses** and **winter vegetable** in the above mentioned districts to bring soil to its field capacity.
- As there was excess rain in remaining districts of the State during last week, postpone irrigation to the crops in these districts.
- Monitor **mustard** crop for sawfly and mahu and if the pests population crosses ETL, spray Endosulphan @ 1.25 litres / ha to control the pests.
- Monitor **mango** for hopper and if the pests population crosses ETL, spray the solution of Carathane or Calixin @ 1ml/litre in water.
- Harvesting of **sugarcane** and **toria** may be continued.

#### **Himachal Pradesh**

The precipitation occurred at many places in the State.

Isolated rain / snow is likely over the State.

#### **Advisories**

- As there was excess rain during last week in all 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.
- Apply second split dose of N @ 25 – 30 kg / ha at tillering stage of **wheat**.
- 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.
- Undertake nursery preparation of **onion** with N – 53 variety. Prepare land and also start transplanting in main field.

- Farmers are advised to arrange for smoking around the field to save the crops from cold injury. Also wipe out water droplets on the leaves by pulling rope from the two sides of field.

### **Uttarakhand**

Moderate to rather heavy rain was recorded at most places on 11<sup>th</sup> February, light to moderate rain occurred at many places on 12<sup>th</sup>, 13<sup>th</sup> & 14<sup>th</sup> February and at a few places on 8<sup>th</sup> February, while mainly dry weather prevailed during rest of the days of the week. Sky remained generally cloudy to overcast during the period.

Mainly dry weather is likely over the State.

#### **Advisories**

- As there was excess rainfall in the State in most of the districts during last week postpone irrigation to the crops.
- Continue harvesting of matured crops of **sugarcane** and **pea**.
- Monitor **mango** for **mealy bug** and **gall midge**. If the pest population crosses ETL, spray Monocrotophos @ 1 ml/ liter of water to control mealy bug and spray Dimecron @ 0.3 ml/liter of water to control gall midge.
- Monitor **litchi** for **mite** attack. Spray Dimethoate @ 0.05% to control mite. Spraying may be undertaken.
- Undertake planting of **potato** in hilly areas.

### **Jammu & Kashmir**

Light to moderate rain / snow has occurred at many places on 12<sup>th</sup> & 13<sup>th</sup> February with heavy falls at isolated places on 12<sup>th</sup> February. Light to moderate rain /snow again occurred at a few places on 14<sup>th</sup> February over J & K State.

Isolated rain / snow is likely over the State.

#### **Advisories**

- There are chances of cold/frost injury to horticultural crops in Jammu division. In order to protect the crops from cold/frost injury, farmers are advised to undertake the following measures.
  - Apply irrigation and arrange for smoke near the field to safeguard the crops from cold/frost 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.
- Conserve moisture in **mustard**, **gram**, **lentil** and **peas** where the crops are at maturity stage.
- Continue planting of new saplings in **orchards**. Cover the early planted saplings with sarkanda to prevent from cold injury.
- Continue sowing **bhindi**, **beans** and **cucurbits**.

### **Delhi**

Light to moderate rain occurred at most places on all days.

Mainly dry weather is likely over the State.

#### **Advisories**

- As there was excess rainfall during last week over the State, postpone irrigation to the crops.
- Prepare land and perform sowing of **pumpkin**, **ladies finger**, **beans** and **Spinach**.
- Use Pusa Jyoti variety for sowing of **spinach**.
- If purple bleach disease is noticed in **onion**, apply dithane M-45 or dithane Z-78 @ 2 kg / ha.

## Southern Region (AP, Tamilnadu, Karnataka and Kerala)

### Kerala

Mainly dry / dry weather prevailed over the State during the period.

Mainly dry weather is likely over the State.

#### Advisories

- There was no significant rainfall in the State during last few weeks and mainly dry weather is likely over the State for the next three days. Under the circumstances, apply irrigation to **plantation crops** to bring the soil moisture to its field capacity.
- Stop irrigation 15 days prior to harvest of **mundakan rice**. Continue harvesting of the matured crop. Continue transplanting of **puncha rice**.
- Attack of **leaf eating caterpillar** is reported in **coconut**. Cut and burn the affected leaves. Release larval and pupal parasitoids to control the pest biologically.
- Attack of **spindle bug** is reported in **arecanut**. Spray Carbaryl @ 4 g/litre of water to control the pest.
- Attack of **bunchy top disease** is reported in **banana**. Apply 12.5% Phorate 10 G or 10 gm Carbofuran 3 G / plant in leaf axil or 25 gm Phorate or 20 gm Carbofuran / pit in soil, 165 days after planting.
- Protect the **plantation crops** from scorching by applying lime.

### Tamilnadu

Rainfall occurred at one or two places over the State on 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> February.

Isolated rain / thundershower is likely over the coastal Tamil Nadu and mainly dry weather is likely over rest of the State.

#### Advisories

- Apply irrigation to **rice, millets, sunflower, pulses, cotton and groundnut** as there was no significant rainfall for the last few weeks and dry weather is likely to prevail for the next three days.
- Continue planting of **early sugarcane**. Undertake sett treatment with *Pseudomonas fluorescence* @ 600 g / ha before planting.
- Monitor **pulse crops** for **leaf eating caterpillar** and if the pest population crosses ETL, spray Endosulphan @ 1.5 ml / liter of water to control the pest.
- Monitor **groundnut** for **red hairy caterpillar** and **leaf miner** and if the pest population crosses ETL, spray Monocrotophos @ 625 ml / ha to control red hairy caterpillar. Spray Methyl demeton @ 0.02% to control leaf miner.
- Continue harvesting of matured crops of **millets and pulses**.

### Karnataka

Dry weather prevailed over the State on all the days.

Mainly dry weather is likely over the State.

#### Advisories

- Apply irrigation to **groundnut, sunflower, sugarcane and rice** as there was no significant rainfall during last few weeks and mainly dry weather is likely to prevail for the next three days.
- Monitor **ratoon sugarcane** for **army worm** in **Bidar and Bagalkote** districts and if the pest population crosses ETL, undertake plant protection measures.
- Continue harvesting **rabi** crops like **jowar, wheat, maize and sunflower**.

### Andhra Pradesh

Isolated rain occurred over the State on 13<sup>th</sup> & 14<sup>th</sup> February and dry weather prevailed elsewhere over the State

during the rest of the week.

Isolated rain / thundershower is likely over Coastal Andhra Pradesh. Mainly dry weather is likely to prevail over rest of the State.

### Advisories

- There was no significant rainfall during last few weeks over the State and rain / thundershowers is likely to occur at isolated places over Coastal Andhra Pradesh and dry weather is likely to prevail in the rest region for the next three days. Under the circumstances, apply irrigation to *rabi* crops like **maize**, **rice**, **red gram** and **groundnut** to bring the soil moisture to its field capacity.
- Attack of **stem borer** is reported in **maize**. To control stem borer spray Endosulfan @ 2ml / litre of water.
- Attack of **tikka leaf spot** is reported in **groundnut**. To control the disease spray Dithane-M-45 @ 2 gm / litre water or Carbendazim @ 1 gm / litre water.
- Attack of **blast** is reported in **rice**. Spray Tricyclozole @ 0.5 gm (or) Edfenophos @ 1 ml / litre of water. Also monitor the crop for stem borer and if the pest population crosses ETL, spray Methyl Parathion @ 350 ml / ha.
- Start harvesting matured crop of **Bengal gram**.

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

#### Assam

Light rain occurred at isolated places on 12<sup>th</sup> & 13<sup>th</sup> February and light to moderate rain occurred at most places on 14<sup>th</sup> February over the State.

Rain / thundershower is likely at a few places over the State for next 24 hours and isolated thereafter.

### Advisories

- As there was excess rain during last week in most of the districts and rain / thundershower is likely at a few places over the State for next 24 hours and isolated thereafter, postpone irrigation to the crops.
- Continue harvesting of **sugarcane**, **arhar**, **rapeseed** and **mustard**, **pea**, **lentil** and **potato**. Red rot infested **canes** should be harvested early and field should be newly planted and rotooning should be discouraged.
- Mild incidence of **red rot** in **sugarcane**, **pod** and **apion borer** in **arhar**, **late blight** in **tomato** and **Hispa**, **Brown Plant Hopper** and **blast** and **sheath blight** diseases in **rice** is reported in a few localities.
- Monitor late blight of **tomato** and if crosses economic threshold level, spray Indofil M-45, alternatively Indofil Z-78 @ 25 gm in 10 litres of water.
- There is mild chance of attack of **aphids** and **stem borer** and **leaf blight** and **leaf spot** diseases in **wheat**. Apply Dimecron 100 E.C. @ 0.5 ml per litre of water or Malathion 50 E.C. @ 2 ml per litre of water to control aphids and stem borer. For control of leaf blight and leaf spot diseases apply Diathane Z -78 @ 2.5 gm per litre of water.
- Monitor attack **Hispa**, **Brown Plant Hopper** and **blast** and **sheath blight** diseases in **rice**. If crosses economic threshold level, to control Hispa and Brown Plant Hopper insecticides like Chloropyriphos 20E.C. @ 1.5 ml per litre of water or Phosphamidon @ 1ml per litre of water is to be applied. 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.
- Apply the plant protection measures on a non-rainy day.
- Maintain 3 – 5 cm water at tillering stage in the **rice** field.

#### Arunachal Pradesh

Sky remained partly cloudy to cloudy over the State. Weather was mainly dry on 12<sup>th</sup> February, rain / thundershower occurred at most places on 13<sup>th</sup> February and at a few places on 14<sup>th</sup> February.

Rain / thundershower is likely at a few places over the State during next 24 hours and isolated thereafter.

## Advisories

- There was no significant rainfall except in **Changlang, East Kameng, Lohit, and west Kameng** districts during last week and rain / thundershowers is likely over the State at a few places during next 24 hours and isolated rain thereafter. Under these conditions, apply required irrigation to **winter vegetables, mustard, wheat and ginger** crops. Apply irrigation depending on the soil profile stored moisture in the above mentioned districts.
- Intercultural operation may be continued in **mustard, ginger and winter vegetables**.
- Monitor **mustard** crop for **aphid** infestation. The crop should be protected from aphids by spraying of Metasystox (1ml per liter water) or neem based insecticide (2 ml / litre of water) if crosses economic threshold level.
- Continue harvesting of matured crop of **potato**.

## Bihar

Light to moderate rain occurred at many places.

Mainly dry weather is likely over the State.

## Advisories

- There was no significant rainfall during last few weeks and mainly dry weather is likely over the State for the next three days. Under the circumstances, apply required irrigation to **potato, vegetables, maize, pulses, oilseeds and wheat**.
- Apply split dose of N @ 25 – 30 kg / ha as top dressing at tillering stage of **wheat**.
- To protect the **potato** from **late blight** attack, spray Mancozeb mixed with Carbendazim which is available in market or saaf @ 2 kg / ha.
- To protect the late sown **rai** crop from **aphid** and **Alternaria blight**, spray mixed solution of Acephate @ 800 g / ha plus Copper oxy-chloride 2.5 Kg / ha.
- Monitor **rabi maize** for pest and diseases and if there is considerable symptom of leaf blight on leaves spray Mancozeb @2.5 Kg / ha.
- Prepare land and continue sowing of summer vegetables like **bhindi, bottle gourd, sponge gourd** and transplanting of **boro rice**.
- Apply N @ 50 kg, P<sub>2</sub>O<sub>5</sub> @ 50 kg and K<sub>2</sub>O @ 50 kg / ha at the time of land preparation and transplant 2 – 3 plants per hill in **boro rice** field.

## Jharkhand

Light to moderate rain occurred at most places with heavy rain accompanied with hail at isolated places.

Mainly dry weather is likely over the State.

## Advisories

- There was no significant rainfall during last week except in **East Singbhum, Palamau and Ranchi** districts and mainly dry weather is likely to prevail for the next three days in the State. Under the circumstances, apply required irrigation to **vegetables, maize and potato, pulses, oilseed and wheat** crops.
- Monitor **wheat** for **termite** attack. Spray Chlorpyrifos @ 2.5 ml / litre of water.
- If **early Blight** appears in **potato** and crosses economic threshold level, it may be protected by spraying of Mancozeb (2.5 gm per liter of water) or Ridomil (1.5 gm per litre).
- **Beans, pulses and oilseed crops** may be affected by **aphids**. If aphid population crosses economic threshold level, the crops are to be protected by application of neem based insecticide Nimarine or Venguard @ 5ml per litre water or Metasystox @ 1 ml / litre of water.
- There is mild chance of attack of **pod borer** in **arhar**. If crosses economic threshold level, spray Monocrotophos @ 1 ml / litre of water.

- Continue transplanting of *boro rice*.

## Sikkim

Sky remained generally cloudy during the period. Light to moderate rain occurred at many places on 8<sup>th</sup>, 12<sup>th</sup> & 14<sup>th</sup> February over East Sikkim. Very light rain occurred at a few places on 9<sup>th</sup> & 13<sup>th</sup> February. No rain occurred on 10<sup>th</sup> & 11<sup>th</sup> February during the week. Rainfall was excess during the period.

Isolated rain / thundershower is likely over the State.

### Advisories

- Apply irrigation to *vegetables, mustard, large cardamom* and *wheat* depending upon soil profile stored moisture.
- Monitor *large cardamom* for *stem borer* and undertake plant protection measures to prevent further damage. Remove *Chirkey* and *Foorkey* affected plants and destroy the affected plants completely.
- Start land preparation and undertake sowing of *maize* after applying FYM / compost. Line sowing may be undertaken to ensure plant population.

## West Bengal

During the said period light to moderate rain occurred at many places on 12<sup>th</sup>, very light to light rain occurred at a few places along with moderate rain at isolated places on 13<sup>th</sup>, and Light to moderate at most places along with heavy rain at isolated places occurred on 14<sup>th</sup> over Sub Himalyan West Bengal.

More over rain occurred at a few places on 12<sup>th</sup>, very light to light rain occurred at most places along with moderate rain at isolated places on 13<sup>th</sup>, moderate to heavy rain occurred at many places on 14<sup>th</sup> over Gangetic West Bengal.

Isolated rain / thundershowers are likely over Sub-Himalayan West Bengal. Mainly dry weather is likely over rest of the State.

### Advisories

- As there was excess rainfall in most of the districts of the State during last week and isolated rain / thundershowers are likely over Sub-Himalayan West Bengal, postpone irrigation to the crops.
- Prepare land and complete transplanting of *boro rice*. Transplant 2 – 3 plants per hill in rice field. Apply N @ 50 kg, P<sub>2</sub>O<sub>5</sub> @ 50 kg and K<sub>2</sub>O @ 50 kg per ha at the time of land preparation.
- Apply 25 – 30 kg N / ha at 3 weeks after transplanting of *boro rice*. Maintain 3 – 5 cm water in the field at tillering stage.
- Monitor brown rust disease in *wheat* and in the event of occurrence of this disease, apply carboxyn or oxycarboxyn @ 1 gm per liter of water if more than 20 % plants are affected by the disease.
- Keep vigilance against infestation of loose smut disease of *wheat*. Wrap the disease affected inflorescence with wet gunny bag and burn the same to prevent spreading of the disease.
- Monitor Pod borer in *gram* and if exceeds economic threshold level, spray 5 % Neem extract or spray 35 EC Endosulphon @ 1000 ml or 25 EC Quinolphos @ 1000 ml / ha in 500 liters water.
- Uproot or rogue out and burn the wrinkle leaf affected plants of *potato*. The disease is spread by white fly. Spray dimethoate @ 2 ml per litre of water to control white fly.
- There is mild chance of attack of late blight disease in *potato*. If attack crosses economic threshold level, apply mancozeb @ 2.5 g per litre of water at 7 – 10 days interval.

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

### Gujarat

Rainfall occurred at isolated places over Saurashtra, North Gujarat region on 13<sup>th</sup>, at South Gujarat on 12<sup>th</sup> & Saurashtra on 14<sup>th</sup> February.

Isolated rain / thundershower is likely over North Gujarat during next 24 hours. Mainly dry weather is likely over

rest part of the State.

### Advisories

- As there was no significant rain in the State during last few weeks and isolated rain / thundershower is likely over North Gujarat during next 24 hours and mainly dry weather is likely over rest part of the State for next three days, apply irrigation to **castor**, **mustard** and **wheat** to bring the soil moisture to field capacity.
- Continue harvesting of already matured crops of **sugarcane**. Harvest the crop when brix reading of sugarcane is 19 or more unit.
- Prepare land and continue transplanting of **rice** seedling. Transplant 2 – 3 plants / hill. Maintain 2 – 3 cm water in rice field 2 – 3 days after transplanting.
- There is mild chance of attack of aphids, mustard saw fly and jassids in **mustard**. If aphid population exceeds economic threshold level, spray pesticides phosphamidon @ 4 ml or dimethoate @ 10 ml or monocrotophos @ 12.5 ml in 10 liter water as per requirement. Second spray 10 to 15 days after first spray if required or dust the methyl parathion 2% powder or quinalphos 1.5 % @ 25 kg / ha.
- Prepare field for sowing of **summer groundnut** by 1 or 2 ploughings. Before ploughing apply 8 to 10 MT compost or 1 MT castor cake in the field. Select varieties from J-11, GG-2, 4, 6, TG-26, ICGS-37, 44. Adopt spacing of 22.5 to 30 cm between the rows. Apply 25 kg N, 50 kg P<sub>2</sub>O<sub>5</sub> / ha at the time of sowing as basal dose.

### Chhattisgarh

Rainfall occurred in Bilaspur division on 12<sup>th</sup> to 14<sup>th</sup> February and in Raipur and Baster divisions on 13<sup>th</sup> and 14<sup>th</sup> February.

Mainly dry weather is likely over the State.

### Advisories

- As mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane (new crop)**, **vegetables**, **gram**, **mustard**, **potato**, **linseed**, **safflower** and **wheat** and also to early sown **sunflower** wherever crops are at vegetative stage.
- Continue preparation of land and sowing of **sunflower** and planting of new crop of **sugarcane**.
- Select varieties from CO-62175, C.O.L.K.-8001 etc. for planting of **sugarcane**. Use top 1/3<sup>rd</sup> portion of the cane as a seed for best germination. Dip 2-3 eyes pieces in a solution of Agelal or Bavistine fungicide (2gm / lit of water) for 30 minutes before planting.
- Attack of **stem borer** is reported in **wheat**. Monitor **stem borer** population in **wheat** and if crosses economic threshold level, apply demecron 85 EC @ 2 ml / 3 litres of water.
- Monitor Pod borer in **gram** and if exceeds economic threshold level, spray 5 % Neem extract or spray 35 EC Endosulphon @ 1000 ml or 25 EC Quinalphos @ 1000 ml / ha in 500 liters water.

### Maharashtra

Light rain has occurred at isolated places in North Konkan. Light rain also occurred at isolated places in Marathwada & Vidarbha on 14<sup>th</sup> February. Mainly dry weather prevailed over rest of the State.

Mainly dry weather is likely over the State.

### Advisories

- As there was no rain during last few weeks in the State and mainly dry weather is likely over the State for next three days, apply irrigation to **rabi jowar**, **safflower**, **rabi maize**, **sunflower**, **potato**, **onion**, **gram**, **sugarcane (Pre-seasonal)** and **wheat**.
- Apply 136 kg Nitrogen / ha along with 85 kg each of P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O after 12 to 16 weeks from planting of **sugarcane (Pre-seasonal)**.
- Prepare land for sowing of **summer groundnut**. For sowing select a variety from SB-11, M-13, GT-26, TAG-24, TPG-41 & Koyna.



- Prepare land and start transplanting of **rice** seedlings. Transplant 3 – 4 seedlings / hill at the time of transplanting. Maintain 2 – 3 cm water in the field after 3 – 4 days of transplanting.
- Prepare land for sowing of **summer sunflower**. For sowing select an improved variety from EC-68414, Morden & SS-56 & hybrid variety from KBSH-11 & APSH-11.
- Prepare land for sowing of **summer bajra**. For sowing select a variety from Sradha & Saburi.
- Mild incidence of **White Woolly Aphids** in Pune, Kolhapur and Aurangabad & **Pyrilla** & **White fly** in Nashik in sugarcane, **Aphids** and **Leaf cater pillar** in Nashik division, **Sugary disease** in Pune and **aphids** in Kolhapur division in *rabi* jowar, **Aphids** in Kolhapur division in safflower, **Rust** in Kolhapur division in wheat and **Pod borer** in Pune, Aurangabad, Amravati and Nashik division in gram, is reported.
- Monitor infested plant by **Sugary disease**, **aphids** in *rabi* jowar & if exceeds economic threshold level, spray 5% Neem extract or Diamethoate 500 ml or Methyl Dimeton 400 ml or Monocrotophos 300 ml / ha in 500 liter water. Spraying may be repeated after 10 – 15 days.
- Monitor Aphids in **Safflower** and if exceeds economic threshold level, spray 5 % Neem extract or spray 35 EC Endosulphon @ 700 ml or 25 EC Quinolpos @ 1000 ml/ha in 500 liter water . Second spraying may be done after 15 days.
- Monitor infested plant by Rust in **wheat** and if exceeds economic threshold level, spray 75 % Mancozeb 1500 gm + Urea 20 kg/ha in 500 liter water.
- Monitor Pod borer in **gram** and if exceeds economic threshold level, spray 5 % Neem extract or spray 35 EC Endosulphon @ 1000 ml or 25 EC Quinolpos @ 1000 ml / ha in 500 liters water.

### Madhya Pradesh

Rainfall occurred at a few places in North M.P. on 12<sup>th</sup> and 14<sup>th</sup> February and East M.P. on 13<sup>th</sup> February, at isolated places in South east M.P on 12<sup>th</sup> February, West M.P on 13<sup>th</sup> February, and South West M.P. on 14<sup>th</sup> February. Mainly dry / dry weather prevailed over rest of the state on remaining period.

Mainly dry weather is likely over the State.

### Advisories

- Due to recent hailstorm, early sown crops have been damaged but the rains are beneficial to late sown irrigated wheat crop.
- Monitor **wheat** for **kandwa** disease and remove and destroy the affected plants completely to prevent further spread of the disease.
- Monitor **mustard**, **masoor** and **linseed** for **mahu** insect and avoid spraying chemicals as the crops are now at maturity stage.

### Orissa

Rainfall occurred at most places over the State on 14<sup>th</sup> February, at a few places on 13<sup>th</sup> February and weather was dry on 12<sup>th</sup> February.

Mainly dry weather is likely over the State.

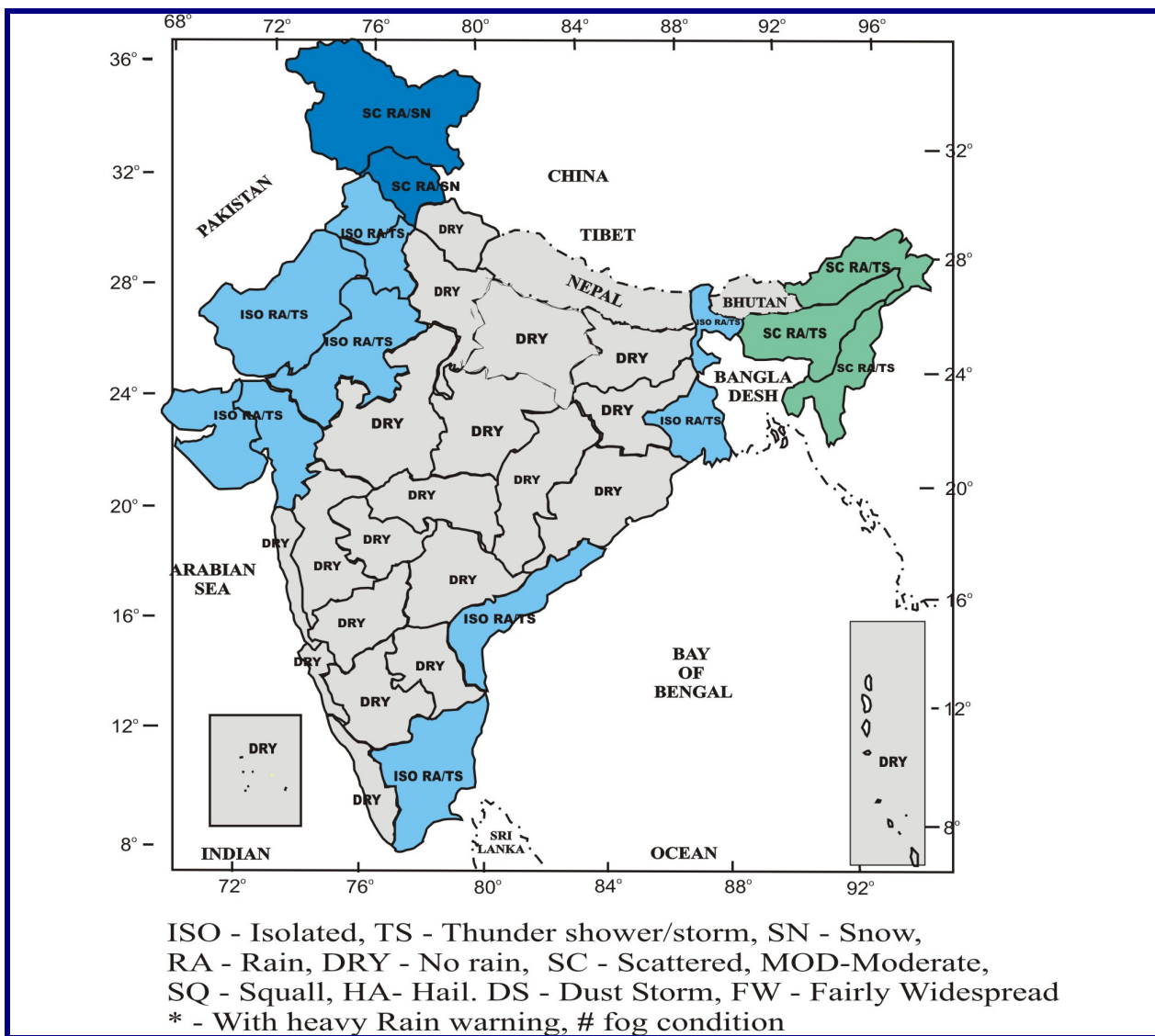
### Advisories

- As there was no significant rain during last few weeks in **Bolangir**, **Kalahandi**, **Koraput**, **Malkangiri** and **Nawarangpur** districts and mainly dry weather is likely over the State for next three days, apply irrigation to **mustard**, **vegetables**, **groundnut** and **pulses** in these districts to bring soil to its field capacity.
- As there was excess rain in remaining districts of the State during last week, postpone irrigation to the crops in these districts.
- Prepare land with basal application of 50 kg N, 50 kg P<sub>2</sub>O<sub>5</sub> and 50 kg K<sub>2</sub>O / ha and complete transplanting of **Dalua Rice**. Transplant 2 -3 seedlings per hill. Maintain 2 – 3 cm water in the field after 2 – 3 days after transplanting.

- Prepare land with basal application of 8 kg N, 16 kg P<sub>2</sub>O<sub>5</sub> and 16 kg K<sub>2</sub>O and start sowing of **summer groundnut**. Select varieties from Smruti and AK 12-24.
- Start sowing of **summer moong** with basal application of 8 kg N, 16 kg P<sub>2</sub>O<sub>5</sub> and 8 kg K<sub>2</sub>O / acre.
- Monitor the **mustard** crop for **saw fly** and spray Endosulfan @ 2 ml / litre of water to control the pest if it crosses economic threshold level (ETL).
- If powdery mildew in **pulses** crosses ETL, spray sulfax @ 5 gm per litre in 200 litres per acre.
- Monitor **brinjal** and **tomato** for wilt and if it crosses ETL, spray 1.5 g Streptocycline and 20 g copperoxychloride in 10 litre of water.
- Monitor thrips in **chillies** and if it crosses ETL, spray 300 ml Ethion or 400 ml Dimethoate per acre.

## Forecast Map

Valid upto 18<sup>th</sup> February 07



## *Salient weather features for the week ending 14/02/07*

### **METEOROLOGICAL ANALYSIS**

- Last week's western disturbance as an upper air system moved away eastwards on 8th.
- A fresh western disturbance as a low pressure area lay over central Pakistan on 9th. Moving slowly in an east-northeasterly direction, it lay over central Pakistan and adjoining Rajasthan and Punjab on 10th. It persisted there on 11th and 12th. Moving further east-northeastwards slowly it weakened and lay as an upper air system over Haryana and neighbourhood extending upto mid-tropospheric level on 13th. It lay over East Uttar Pradesh and adjoining Bihar extending upto 3.1 km a.s.l. on 14th with a trough from this system extending upto south coastal Orissa.
- An upper air cyclonic circulation extending upto 1.5 km a.s.l. lay over Jharkhand and neighbourhood with a trough running upto south Chhattisgarh on 13th and became less marked on 14th.
- A trough in easterly at lower levels lay over southwest Bay of Bengal off Tamil Nadu coast on 9th and off south Tamil Nadu on 10th. It ran from Commorin area to south Tamil Nadu on 11th and from Commorin area to Keral on 12th. It moved away westwards on 13th.

### **RAINFALL**

Under the influence of the above systems:

- Isolated rain/snowfall occurred over Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Punjab and West Uttar Pradesh on 8th.
- Rain/thundershower occurred at a few places over Orissa, west Bengal, Jharkhand, Bihar, East Uttar Pradesh and northeastern States on 8th, and over the above regions outside East Uttar Pradesh and Bihar on 9th.
- A fresh active wet spell started on 10th with rain/thundershower at many places over Rajasthan at a few places over Gujarat and isolated precipitation over Jammu & Kashmir, Himachal Pradesh, Uttaranchal, Punjab and West Uttar Pradesh. The activity increased thereafter causing rain/snow at many places over these sub-divisions outside Rajasthan during 11-13th and at a few places on 14th. The activity continued over Rajasthan and Gujarat upto 11th. Isolated rainfall also occurred over Konkan & Goa during this period. Isolated heavy rainfall was realized over Rajasthan on 11th and over Haryana on 11th and 12th.
- The active wet spell extended to central and east India on 11th causing rain/thundershowers at many places over East Uttar Pradesh, north Madhya Pradesh, north Chhattisgarh on 11th, north Madhya Pradesh, north Chhattisgarh, East Uttar Pradesh, Bihar, Sub-Himalayan west Bengal & Sikkim on 12th, north Madhya Pradesh, north Chhattisgarh, interior Orissa on 13th, East Madhya Pradesh, Chhattisgarh and all the sub-divisions of east India on 14th. Scattered to isolated rain/thundershowers also occurred over remaining parts of central and east India during this period.
- The enhanced rainfall belt extended to northeastern States causing fairly widespread rainfall on 14th.
- Isolated rain/thundershower occurred over Tamil Nadu during 10-12th and on 14th, over Kerala during 12-13th and over north Andhra Pradesh on 14th.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

### **FOG**

Morning fog conditions prevailed over many parts of Indo-Gangetic plains during 8-9th and at some places over northwest India on 14th.

### **MINIMUM TEMPERATURES**

- The Minimum temperatures were above normal by 2-4 °C throughout the week except on 10th and 14th over the plains of northwest India. They were above normal by 4-6 °C on 10th and normal on 14th over the region.

- They were above normal by 3-5 °C during 8th to 11th and by 2-4 °C afterwards over east India.
- During the week they were above normal by 2-4 °C over northeast India except Arunachal Pradesh where they were normal on 10th and 11th.
- Night temperatures were above normal by 2-5 °C over central India during 8th to 13th and normal on 14th.
- Minimum temperatures were above normal over Rajasthan and Gujarat by 4-8 °C during 9-10th and by 2-5 °C on remaining days of the week. They were above normal by 2-4 °C over remaining parts of west India during the week except on 14th when they were below normal by 2-3°C.
- They were below normal by 2 °C during 8th & 9th, normal during 10th & 11th and above normal by 2-3° C during 12-14th over Tamil-Nadu and Kerala. They were normal over remaining parts of south India during the week except on 14th when they were below normal by 2-4 °C.

#### **RAINFALL DURING THE WEEK ENDING ON 14<sup>TH</sup> FEBRUARY, 2007.**

Rainfall was excess/normal in 26, deficient/scanty in 4 and no rain in 6 out of 36 meteorological sub-divisions (Actual: 17.7 mm, Normal: 4.8 mm and Departure: 272%).

#### **CUMULATIVE SEASONAL RAINFALL (1<sup>ST</sup> JANUARY TO 14<sup>TH</sup> FEBRUARY, 2007)**

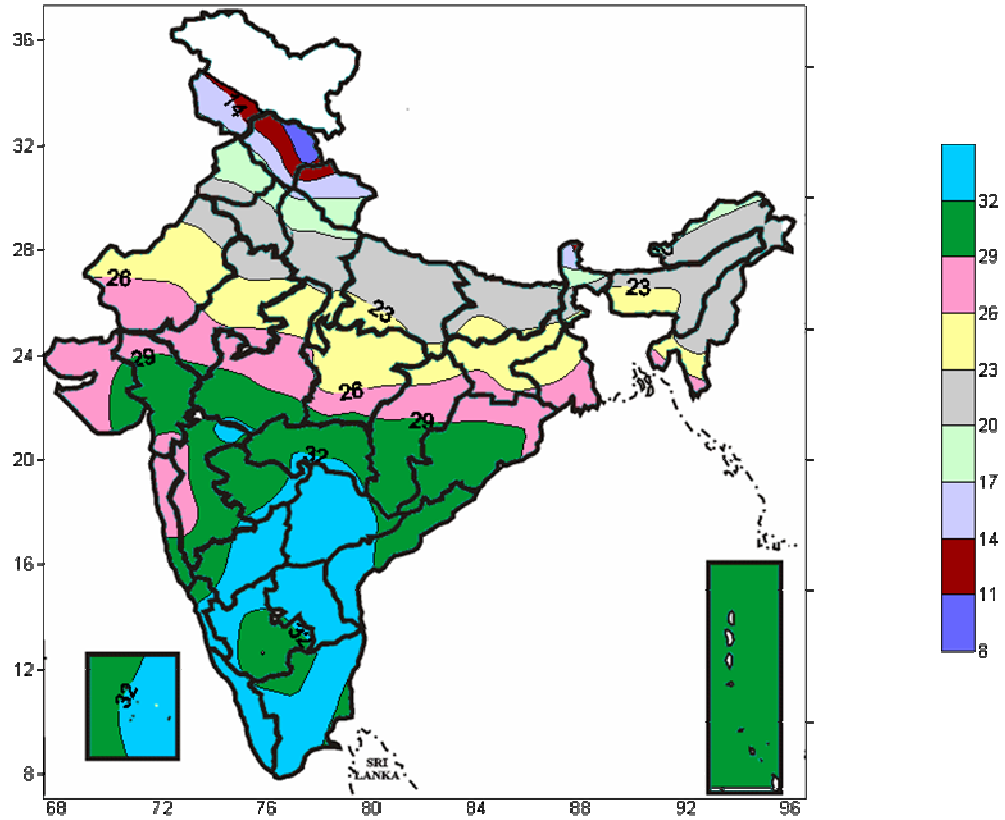
Rainfall was excess/normal in 14, deficient/scanty in 21 and no rain in 1 out of 36 meteorological sub-divisions. (Actual: 22.4 mm, Normal: 30.7 mm and Departure: -27%).

#### **OUTLOOK FOR THE WEEK ENDING ON 21<sup>ST</sup> FEBRUARY, 2007.**

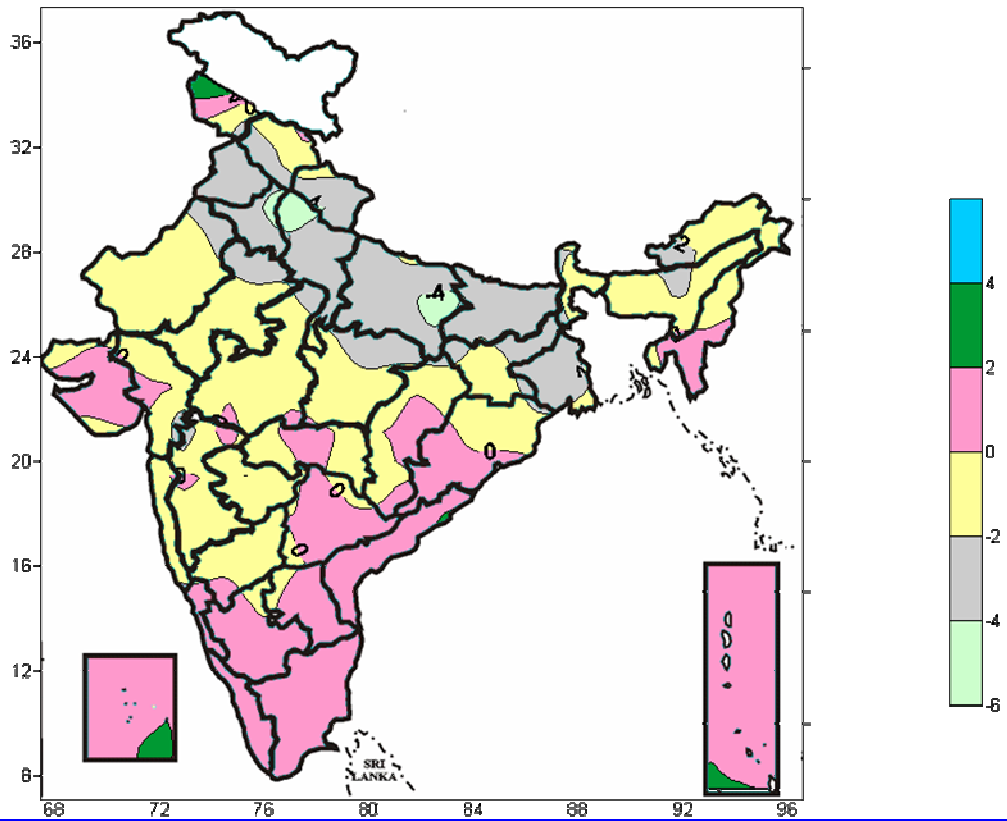
- Scattered precipitation activity is likely over Western Himalayan region and adjoining northern plains for 2-3 days commencing from 17th.
- Night temperatures are likely to exhibit no significant change over Indo-Gangetic plains till 18th and slight fall thereafter.

## Contour maps for the week ending 14<sup>th</sup> February, 2007

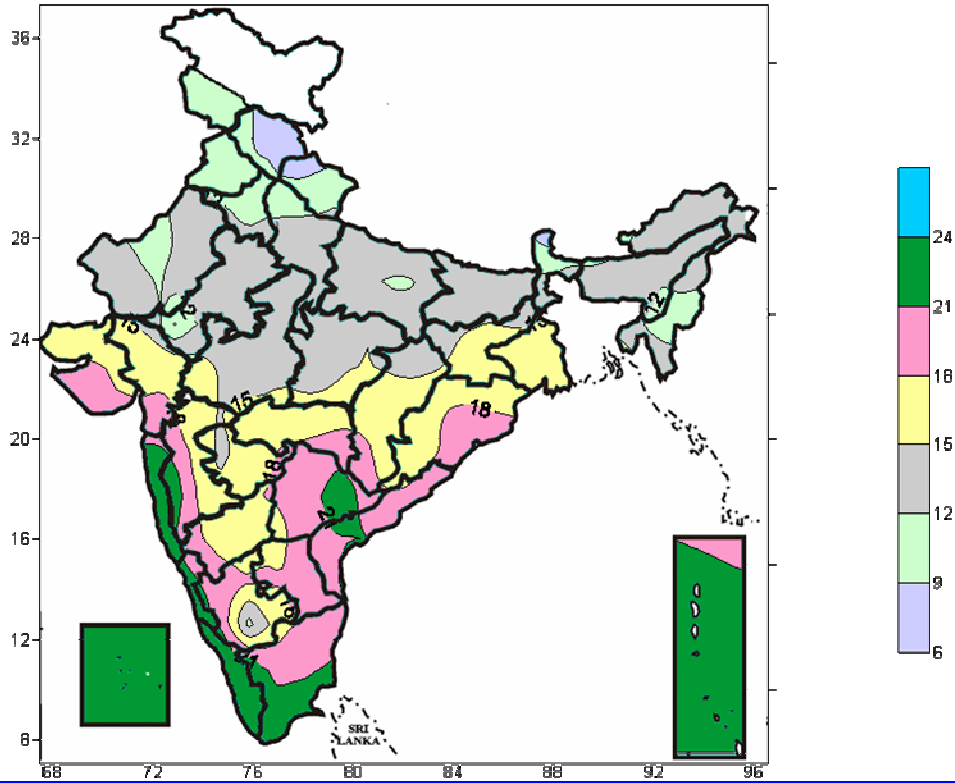
**Actual mean maximum Temperature (°C) in India for the week ending 14.02.07**



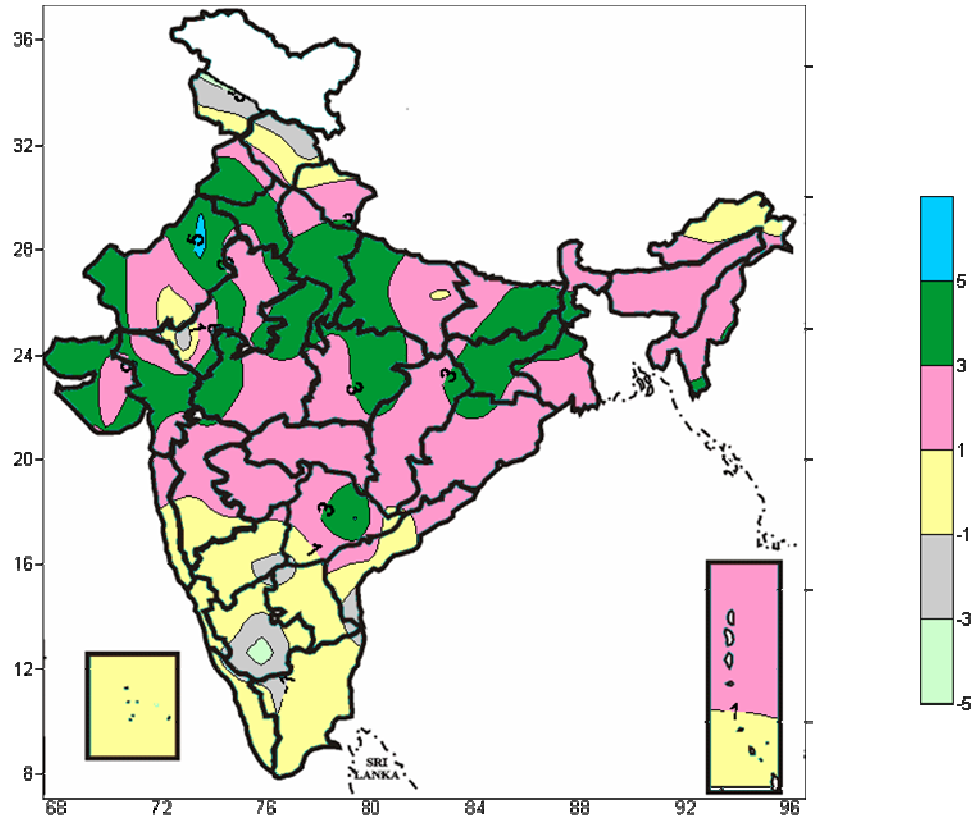
**Maximum Temperature (°C) Anomaly in India for the week ending 14.02.07**



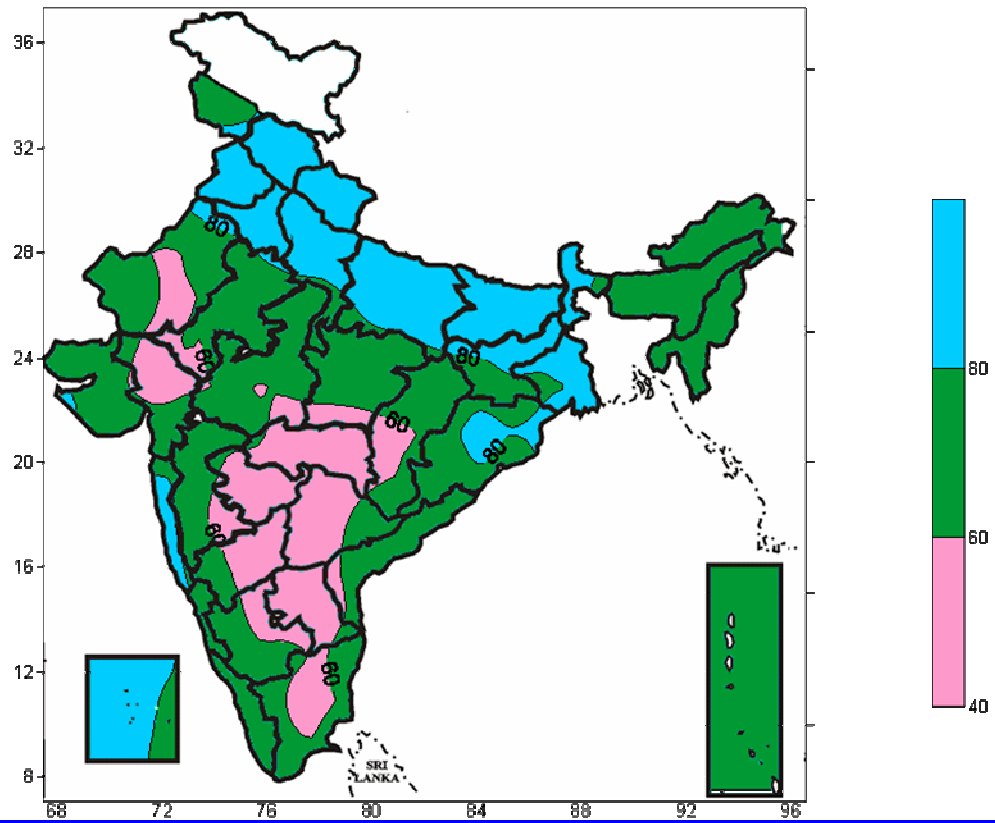
**Actual mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 14.02.07**



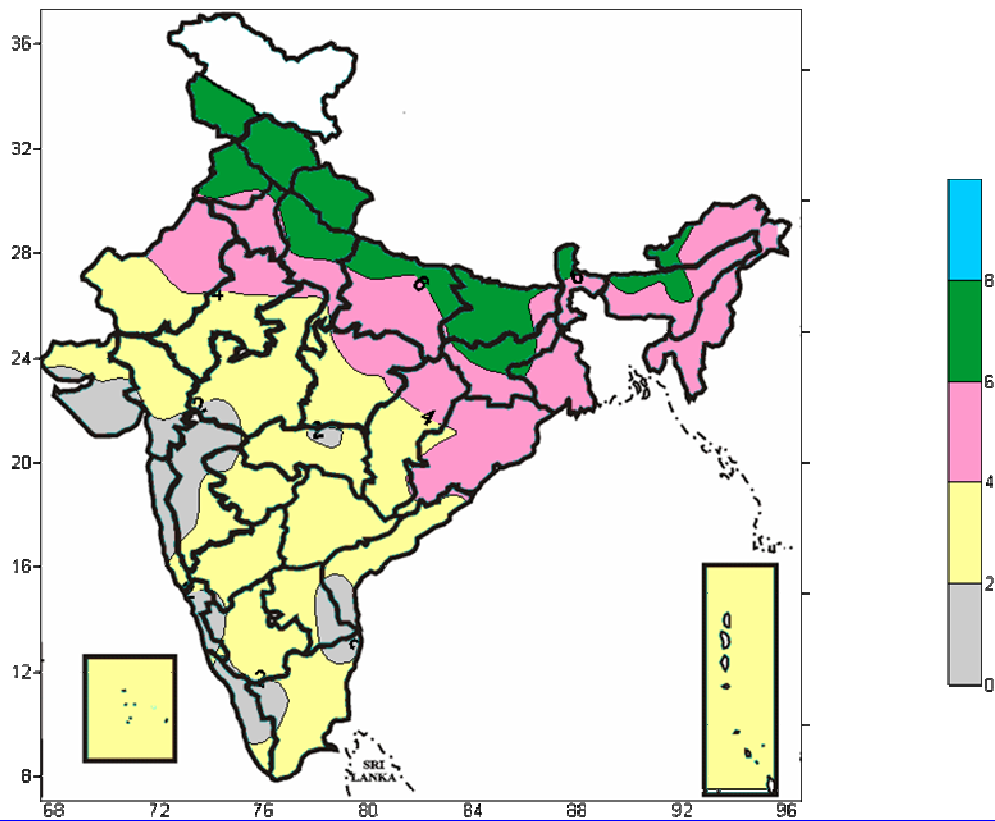
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 14.02.07**



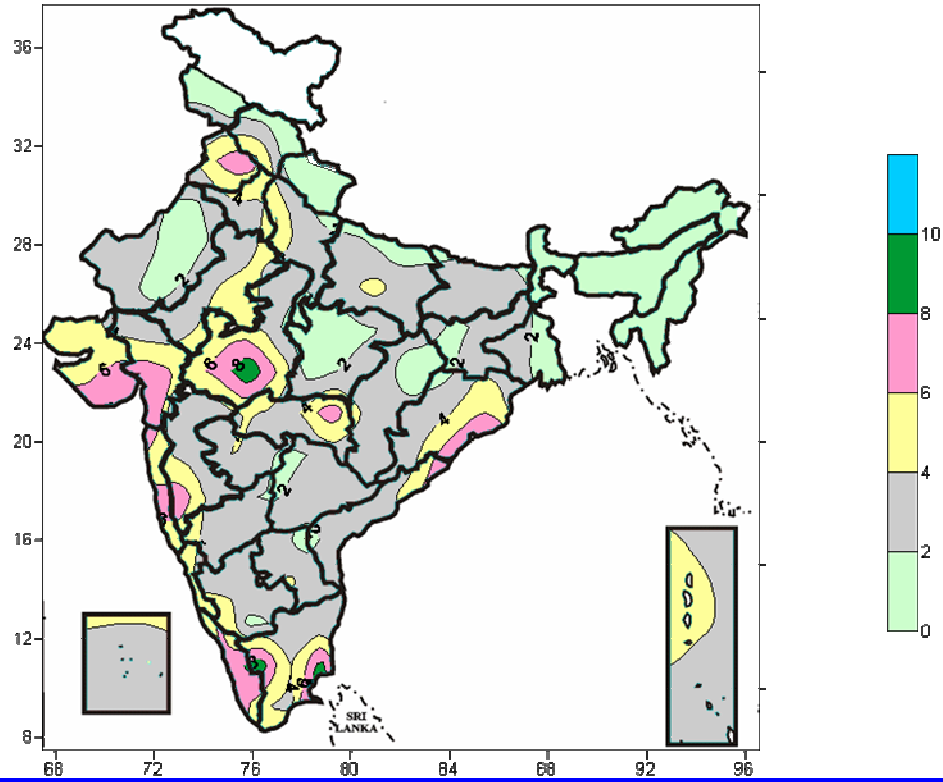
Relative humidity (%) over India for the week ending 14.02.07



Cloud amount (Okta) over India for the week ending 14.02.07



### Wind speed (knots) over India for the week ending 14.02.07



## Desert Locust Forecasting



### Rainfall (mm)

Station Name	08.02.07	09.02.07	10.02.07	11.02.07	12.02.07	13.02.07	14.02.07
Amritsar	NIL						
Barmer							
Sriganganagar							
Jaisalmer							
Kota							
Deesa							
Churu							

### Temperature (degree celcius)

Station Name	08.02.07	09.02.07	10.02.07	11.02.07	12.02.07	13.02.07	14.02.07
Amritsar	16.0	15.0	14.5	13.5	15.0	14.0	11.0
Barmer	23.5	24.0	21.0	18.5	18.5	19.5	18.0
Sriganganagar	17.0	19.0	16.5	15.5	15.0	16.5	12.5
Jaisalmer	22.5	-	21.0	16.5	18.0	18.5	17.0
Kota	22.5	20.5	20.5	21.0	21.5	19.0	18.0
Deesa	23.0	24.0	23.0	22.0	20.0	22.0	20.5
Churu	-	-	-	-	-	-	-

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



## CROP – STATE – STAGE

### Delhi

<b>Barley</b>	<b>Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot, and turnip)</b>	<b>Early sown vegetable crops</b>	<b>Wheat</b>	<b>Mustard/Gram</b>
Vegetative	Sowing/ Transplanting	Vegetative/ flowering/ fruiting/ harvesting	Tillering	Flowering/Pod formation

### Haryana

<b>Horticultural crop</b>	<b>Sugarcane</b>	<b>Gram /Lentil</b>	<b>Rabi oilseeds</b>	<b>Wheat</b>
Vegetative	Vegetative	Flowering/Pod formation	Vegetative/ Flowering	Tillering
<b>Toria</b>	<b>Sunflower</b>			
Harvesting	Sowing			

### Himachal Pradesh

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

### Jammu & Kashmir

<b>Vegetable crops</b>	<b>Toria / Brown Sarson</b>	<b>Mustard</b>	<b>Pea/Lentil/Gram</b>	<b>Wheat / Barley</b>
Flowering/Fruiting/Harvesting	Maturity / harvesting	Maturity	Pod maturity	Grain formation

### Punjab

<b>Sugarcane</b>	<b>Rabi oilseeds</b>	<b>Gram/Lentil</b>	<b>Horticultural crop</b>	<b>Wheat</b>
Vegetative	Vegetative/ Flowering	Flowering /Pod formation	Vegetative	Tillering
<b>Toria</b>	<b>Sunflower</b>			
Harvesting	Sowing			

### Rajasthan

<b>Mustard</b>	<b>Wheat</b>	<b>Cumin</b>	<b>Gram</b>	<b>Barley</b>
Siliquea development	Grain formation	Seed formation	Pod development	Grain formation

### Uttar Pradesh

<b>Wheat / Barley</b>	<b>Rabi pulses</b>	<b>Sugarcane</b>	<b>Mango</b>	<b>Winter Vegetables</b>
Vegetative	Flowering /seed formation	Harvesting	Flowering / matured tree	Vegetative/ flowering
<b>Rabi Oilseeds( Rai and Mustard)</b>	<b>Toria</b>			
Flowering /seed formation	Harvesting			

### Uttarakhand

<b>Pea</b>	<b>Mango/Litchi</b>	<b>Wheat</b>	<b>Sugarcane</b>	<b>Potato</b>
Harvesting	Flowering	Tillering/Flowering	Maturity / harvesting	Tuber growth
<b>Apple</b>				
Vegetative / flowering				

### Assam

<b>Vegetables</b>	<b>Sugarcane</b>	<b>Wheat</b>	<b>Boro Rice</b>	<b>Potato</b>
Vegetative/ Flowering/ Fruiting/ Harvesting	Harvesting	Tillering/Flowering	Tillering	Tuber formation / maturity
<b>Pea and Lentil</b>	<b>Arhar</b>	<b>Rape seed and Mustard</b>		
Pod maturity/ Harvesting	Maturity/Harvesting	Pod maturity/ Harvesting		

### Arunachal Pradesh

<b>Mustard</b>	<b>Ginger</b>	<b>Potato</b>	<b>Wheat</b>	<b>Winter vegetables</b>
Flowering	Vegetative	Harvesting	Tillering/Flowering	Harvesting

### Bihar

<b>Summer Vegetables</b>	<b>Rabi vegetables</b>	<b>Wheat</b>		<b>Rabi Maize</b>
Sowing	Flowering / fruiting / harvesting	Flowering		Tasseling / Silking / cob initiation

	<b>Boro Rice</b>	<b>Potato</b>	<b>Rabi Oil seeds (Toria, Sarson, Linseed)</b>	<b>Rabi Pulses (Lentil, Gram, Pea)</b>
	Transplanting	Tuber growth / maturity	Pod formation / maturity	Pod formation / early maturity

**Jharkhand**

<b>Boro rice</b>	<b>Rabi Maize</b>	<b>Wheat</b>	<b>Potato</b>
Transplanting	Tasseling / silking	Tillering	Tuber formation
<b>Rabi vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)</b>	<b>Summer vegetables</b>	<b>Rabi pulses and oilseeds (Gram, masoor, lentil, linseed, oat, mustard and kusum)</b>	<b>Arhar</b>
Vegetative / flowering / fruiting	Sowing	Pod formation	Pod formation / maturity

**Sikkim**

<b>Orange</b>	<b>Mustard</b>	<b>Rabi vegetables</b>	<b>Wheat</b>	<b>Large Cardomom</b>
---	Siliqua development/ Maturity	Fruiting /Harvesting	Grain formation	Vegetative

**West Bengal**

<b>Boro rice</b>	<b>Sugarcane</b>	<b>Wheat</b>	<b>Rapeseed and Mustard</b>	<b>Gram/ Lentil</b>
Land preparation / Transpalntation	Cane maturity / harvesting	Flowering /Milking	Pod formation / early maturity	Pod formation / early maturity
<b>Early transplanted Boro rice</b>	<b>Potato</b>			
Early vegetative/Tillering	Tuber formation / Tuber growth/Early maturity			

**Chattisgarh**

<b>Gram / Mustard</b>	<b>Vegetables (Tomato, chilli, brinjal)</b>	<b>Sugarcane</b>	<b>Wheat</b>	<b>Safflower,</b>
Pod formation / early maturity	Vegetative / Flowering/ Fruiting / harvesting	Maturity/Harvesting	Flowering / Milk	Vegetative /Branching
<b>Sunflower</b>	<b>Early Sown Sunflower</b>	<b>Potato</b>	<b>New crops Sugarcane</b>	<b>Early sown Sugarcane</b>
Field preparation / sowing	Germination / early vegetative / vegetative	Tuber formation / Tuber growth / early maturity	Planting	Sprouting/Early vegetative
<b>Linseed</b>				
Seed formation / early maturity				

**Gujarat**

<b>Mustard</b>	<b>Wheat</b>	<b>Pre-monsoon irrigated Cotton</b>	<b>Castor</b>	<b>Sugarcane</b>
Pod formation/ Maturity	Flowering /Milk	Boll formation / picking	Flowering / spike formation	Maturity / Harvesting
<b>Kharif Cotton</b>	<b>Summer Groundnut</b>	<b>Summer Rice</b>	<b>Early sown Groundnut</b>	
boll maturity/picking	Land preparation/sowing	Transplantation	Germination	

**Maharashtra**

<b>Sugarcane (Seasonal) (Madhya Mahrashtra, Marthwada and Vidarbha)</b>	<b>Kharif cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Tur (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Safflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
cane maturity / harvesting	Boll maturity / picking	Pod maturity / harvesting	Grain formation/grain maturity / harvesting – in some parts of Pune & Kolhapur Div.)	Head formation /(Head maturity- at some places)
<b>Wheat (Madhya Maharashtra, Marathwada, Vidarbha &amp; Konkan)</b>	<b>Gram (Madhya Maharashtra, Marathwada, Vidarbha &amp; Konkan)</b>	<b>Rabi Maize (Madhya Maharashtra, Marathwada, Vidarbha &amp; Konkan)</b>	<b>Rabi Sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Sugarcane Preseasonal (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Milk/Dough	Pod formation /Pod	Cob initiation/cob	Head formation/Seed	Sprouting / early

	maturity / harvesting	formation/cob maturity	maturity / harvesting	vegetative
<b>Potato</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Onion</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Summer Groundnut</b> (Madhya Maharashtra, Marathwada, Vidarbha & Konkan)	<b>Summer Rice</b> (Konkan)	<b>Summer Sunflower</b> (Madhya Maharashtra, Marathwada & Vidarbha)
Tuber growth / tuber maturity	Bulb formation/bulb growth	Land preparation/sowing Early sown at germination	Germination / seedling	Land preparation/Sowing
<b>Summer Bajra</b> (Madhya Maharashtra, Marathwada & Vidarbha)				
Land preparation/Sowing				

**Madhya Pradesh**

<b>Irrigated Wheat</b>	<b>Mustard</b>	<b>Gram</b>	<b>Masoor</b>	<b>Linseed</b>
Grain formation	Maturity	Maturity	Maturity	Maturity
<b>Wheat</b>				
Grain development				

**Orissa**

<b>Vegetables</b>	<b>Dalua Rice</b>	<b>Mustard</b>	<b>Pulses</b>	<b>Rabi Groundnut</b>
Flowering / Fruiting / Harvesting	Transplanting	Pod formation/ pod maturity	Vegetative / flowering / pod formation	Pod formation/ Pod maturity
<b>Sugarcane</b>	<b>New Sugarcane crop</b>	<b>Early transplanted Dalua Rice</b>		
Maturity / harvesting	Planting	Tillering		

**Andhra Pradesh**

<b>Rabi Groundnut</b>	<b>Rabi Maize</b>	<b>Gram</b>	<b>Rabi red gram</b>	<b>Rabi rice</b>
Pegging / pod formation	Cob formation	Harvesting	Pod formation /Maturity	Tillering

**Karnataka**

<b>Sugarcane (Ratoon crop)</b>	<b>Rabi Wheat</b>	<b>Rabi jowar, Sunflower and maize</b>	<b>Summer groundnut and Sunflower</b>	<b>Summer rice</b>
Vegetative	Harvesting	Harvesting	Vegetative	Transplanting ( some places) / Vegetative

**Kerala**

<b>Rubber</b>	<b>Mundakan rice</b>	<b>Puncha rice</b>		
Tapping	Harvesting	Field preparation / transplanting		

**Tamil Nadu**

<b>Rice (Navarai)</b>	<b>Millets</b>	<b>Cotton</b>	<b>Rice fallow Pulses (Blach gram and Green gram)</b>	<b>Oilseeds (Groundnut)</b>
Tillering	Harvesting	Vegetative	Vegetative	Vegetative
<b>Sunflower</b>	<b>Pulses (Blach gram and Green gram)</b>	<b>Maize</b>	<b>Sugarcane (Early season)</b>	<b>Thaladi Rice</b>
Vegetative	Harvesting	Vegetative	Planting	Raising nursery
<b>Early planted Sugarcane</b>				
Early vegetative				

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