



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

**Thursday, 11<sup>th</sup> January, 2007**

(For the period 11<sup>th</sup> January to 15<sup>th</sup> January, 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 Uttaranchal)**

**Punjab**

Cold wave conditions are prevailing in the State with reports of ground frost in some pockets of the State.

Mainly dry weather is likely over the region. Fall in night temperature by 1-2<sup>o</sup>C.

**Warning:** Ground frost is likely over some parts of the State.

**Advisories**

- There was no significant rainfall in the State during last week and mainly dry weather is likely for the next three days. Under the circumstances, apply irrigation in **sugarcane, rabi oilseeds, gram, lentil and wheat.**
- Continue sowing of **sunflower.**
- Make necessary arrangements to protect the **rabi oilseed, gram, lentil, wheat and vegetable** crops from cold / frost injury. Apply light irrigation and arrange for smoke around the field to prevent 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.
- Apply top dressed nitrogen to early sown **wheat** crop.
- Harvesting of early maturing varieties of **toria** may be completed and mid varieties may be continued.

**Haryana**

Cold to severe cold wave conditions are prevailing in the State with reports of ground frost in some pockets of the State.

Mainly dry weather is likely over the region. Fall in night temperature by 1-2<sup>o</sup>C.

**Warning:** Ground frost is likely over some parts of the State.

**Advisories**

- There was no rainfall during last week and mainly dry weather is likely to prevail for the next three days. Under the circumstances apply irrigation to **sugarcane, gram, lentil and wheat.**
- Continue sowing of **sunflower.**
- Incidence of **shoot borer, top borer, gurdaspur borer, pyrilla, termite and red rot** is reported in **sugarcane.** To control **pyrilla** spray 600-800 ml Malathion in 800 litres of water per acre.
- Make necessary arrangements to protect **rabi oilseed, gram, lentil, wheat and vegetable** crops from cold / frost injury. Apply light irrigation and arrange for smoke around the field to prevent 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.

## Rajasthan

Weather remained dry in all divisions of the State.

Mainly dry weather is likely over the region. Fall in night temperature by 1-2<sup>0</sup>C over the State.

**Warning:** Cold wave condition is likely to prevail in some parts of Jaipur, Bikaner and Jodhpur divisions accompanied with ground frost likely to continue during next 1 or 2 days in Bikaner and Jaipur divisions.

### Advisories

- Apply irrigation and arrange for smoke near the field in north Rajasthan 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.
- As there was no significant rainfall during last week and mainly dry weather is likely over the state, apply irrigation to mustard, wheat, gram, cumin and barley.
- Undertake intercultural operations in mustard, cumin and gram to keep the field weed free. Topdress urea in mustard crop before light irrigation.
- Monitor mustard for aphids attack and if the pest population crosses ETL, dust Methyl parathion 2% or spray Endosulfan 35 EC or 50 EC @ 1.25 lit / ha.
- Also monitor gram for pod borer and cumin for aphids attack and if the pest population crosses ETL, undertake plant protection measures.

## Uttar Pradesh

Weather was mainly dry in all divisions of the State during the period.

Mainly dry weather is likely over the State. Fall in night temperature by 1-2<sup>0</sup>C over West U.P and by 2-3<sup>0</sup>C over East U.P.

**Warning:** Ground frost is likely over some parts of plains of Northwest U.P.

### Advisories

- There was no significant rainfall during last week and mainly dry weather is likely over the State for the next three days. Under these circumstances, apply irrigation to bring the soil moisture to its field capacity in rabi oilseed, pulses and winter vegetable crops.
- Continue weeding and hoeing, along with top dressing of nitrogen in winter vegetables and rabi oilseeds, wheat and pulses.
- Harvesting of sugarcane may be continued.
- Make necessary arrangements to protect the standing crops from cold/frost injury. Apply light irrigation and arrange for smoke around the field to prevent 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.

## Himachal Pradesh

The weather was mainly dry during the period.

Mainly dry weather is likely over the state. Fall in night temperature by 1-2<sup>0</sup>C.

### Advisories

- As there was no significant rain during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to vegetable crops, gram, rapeseed and mustard, wheat and barley.
- Complete land preparation and nursery sowing and transplanting of cauliflower and cabbage in low and mid hills, sowing of raddish, turnip and carrot.

- Apply first split dose of N @ 25 – 30 kg / ha at crown root initiation stage (20 – 25 days after sowing) and second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) 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.
- To control grassy weeds in **barley**, spray isoproturon @ 0.75 kg / ha and for broad leaved weeds, 2,4-D Sodium @ 0.75 kg / ha (Fernoxone or Bathua Powder) in 700-800 litres of water at 2-3 leaf stage of weeds per hectare.
- As there is chance of occurrence of frost, farmers are advised to arrange for smoking around the field to save the crops from frost.
- 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.

### Uttaranchal

Mainly dry weather prevailed during the period. Sky remained mainly clear to partly cloudy during the week.

Mainly dry weather is likely over the State. Fall in night temperature by 1-2<sup>0</sup>C over the State.

**Warning:** Ground frost is likely over some parts of plains of the State.

### Advisories

- There was no significant rainfall during last week and mainly dry weather is likely to occur at a few places over the State. Under the circumstances, apply required irrigation to **potato** and **wheat** crops.
- Carryout intercultural operation, application of fertilizer and plant protection measures to **wheat** and **potato** crops.
- As there is chance of occurrence of frost, farmers are advised to arrange for smoking around the field to save the crops from frost.
- 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.
- Continue harvesting of matured crops of **toria**, **sugarcane** and **pea**.

### Jammu & Kashmir

Weather remained dry in J & K State.

Weather will be mainly dry over the State. Fall in night temperature by 1-2<sup>0</sup>C over the State.

**Warning:** Ground frost is likely over some parts of the State.

### Advisories

- 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.
- Apply irrigation to **mustard**, **wheat**, **peas** and **rabi vegetables** as there was no rainfall during last week and dry weather is likely to prevail for the next three days.
- Rouge out virus effected crops of **brinjal**, **tomato**, **cauliflower** and **cabbage** in Jammu division.
- Due to congenial weather, there are chances of **termite** attack in **wheat**. Apply Aldrin @ 5 litres / ha along with irrigation water in case of attack.

- This is proper time for late sowing of **raddish** (varieties: Pusa Himani) and **spinach** (all green prickly seed). Continue land preparation and sowing of raddish and spinach.

## Delhi

Weather remained dry during the period.

Mainly dry weather is likely over the State. Fall in night temperature by 1-2<sup>0</sup>C.

### Advisories

- As there was no significant rainfall during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **early sown vegetable crops** and also to **barley, gram, mustard** and **wheat** to bring the soil moisture to its field capacity.
- Prepare land and perform sowing of Pusa Himani variety of **raddish** and Nanteez variety of **carrot**. Treat the seeds with Captan or Thairam or Dithane M- 45 @ 2 g / kg seeds.
- Apply first split dose of N @ 25 – 30 kg / ha at crown root initiation stage (20 – 25 days after sowing) and second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.
- To control wild oats and *Phalaris minor* in **wheat** crops, use isoproturan 75% W.P. @ 1 Kg / ha and 2, 4-D AMIEN salt 58 EC @ 750-1000 ml / ha for controlling broad leaved weeds after 28-35 days of sowing.
- As there is chance of occurrence of frost, farmers are advised to arrange for smoking around the field to save the crops from frost.
- 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.

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

### Kerala

Weather was dry over the State during the period.

Isolated rain / thundershower is likely over the State.

### Advisories

- There was no significant rainfall in the State during last few weeks and rain/thundershowers is likely to occur only at isolated places 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**.
- Attack of **red palm weevil** is reported in **coconut**. Fill the leaf axils with Sevidol 8G @ 25 gm and fine sand @ 200 gm to control red palm weevil.
- Attack of **pseudo stem weevil** is reported in **banana**. Spray Quinalphos @ 0.05% or Chlorphyriphos @ 0.03% or Carbaryl @ 0.2% to control **pseudo stem weevil**. Spraying / drenching may be done on all leaf axils, rhizome, surrounding soil and all around the entire pseudostem. Repeat the treatment after 3 weeks if infestation persists.

### Tamilnadu

Mainly dry weather prevailed over Tamilnadu & Puducherry on 9<sup>th</sup>, 10<sup>th</sup> January and dry weather on 8<sup>th</sup> January.

Isolated rain / thundershower is likely over the State.

**FROST WARNING:** Ground Frost may occur at a few places over the hill ranges of **Nilgiris** district during next two nights.

## Advisories

- Rain / thundershowers likely to occur only at isolated places for the next three days. Under the circumstance, apply irrigation to the **millet**s, **sunflower**, **cotton**, **groundnut** and **pulses** to bring the soil moisture to its field capacity.
- Undertake intercultural operations, application of fertilizers and pesticides in early sown **cotton**, **groundnut** and **sunflower**.
- Undertake spraying of 2% DAP in **pulse** crops to enhance bud setting.
- Continue land preparation and sowing of nursery for *thaladi rice*.
- 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**. Dust 4% Carbaryl or spray Methyl demeton @ 0.02% to control **leaf miner**.

## Karnataka

Dry weather prevailed over the State on all days.

Mainly dry weather is likely over the State.

## Advisories

- There was no rainfall during last few weeks and dry weather is likely to prevail for the next three days. Under the circumstances, apply irrigation to early sown *rabi* crops like **jowar**, **sunflower**, **wheat** and **maize** to bring the soil moisture to its field capacity.
- Undertake intercultural operations in **wheat** and **sugarcane** to keep the field weed free.
- Monitor *ratoon sugarcane* for **wooly aphids** and if the pest population crosses ETL, release *Dipha* sp, adopt wider spacing, intercropping with soyabean and pulses of short duration as plant protection measures against wooly aphids in **Mysore**, **Mandya** and **Hassan** districts.
- Undertake transplanting of *summer rice* in the main field. Maintain thin film of water at the time of transplanting.

## Andhra Pradesh

Dry weather prevailed over the State during the period.

Mainly dry weather is likely to prevail over the State.

## Advisories

- There was no significant rainfall during last few weeks over the State and dry weather is likely to prevail for the next three days. Under the circumstances, apply irrigation to *rabi* crops like **gram**, **maize**, **red gram** and **groundnut** to bring the soil moisture to its field capacity.
- Undertake land preparation and sowing of **maize** in Coastal Andhra Pradesh.
- Continue land preparation and nursery sowing of *rabi rice*. Transplanting may be undertaken at proper age of seedlings.
- Attack of **stem borer** is reported in **rice** nursery in **West Godavari** district. Spray Monocrotophos @ 2ml / liter of water to control the pest.
- Attack of *Maruka stem borer* is reported in **red gram**. Spray Dichlorovos @ 1ml + Chlorpyrifos @ 2.5 ml / liter of water to control the pest.

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

### Assam

Weather was dry over the state during the period.

Isolated rain / thundershower is likely over the State.

## Advisories

- As there was no significant rain in all the districts during last few weeks and isolated rain / thundershower is likely over the State for next three days, apply irrigation to **wheat, rapeseed and mustard, potato, pea, lentil** and early sown **vegetables**.
- Continue harvesting of **sugarcane** and **arhar**. Red rot infested **canes** should be harvested early and field should be newly planted and rotooning should be discouraged.
- Apply second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.
- Mild incidence of **red rot** in **sugarcane**, **pod** and **apion borer** in **arhar**, **aphids** and **saw fly** in **mustard** and **late blight** in **tomato** is reported in a few localities.
- Monitor aphids and saw fly in **mustard** and if crosses economic threshold level, spray Rogor or malathion @ 2ml per litre of water.
- 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.
- Continue land preparation and sowing of **winter vegetables** and **transplanting of rice**.
- Maintain 2 – 3 cm water in the **rice** field after 2 – 3 days of transplanting and 3 – 5 cm water at tillering stage.

## Arunachal Pradesh

Mainly dry. Sky remained partly cloudy to mainly clear over the State.

Isolated rain / thundershower is likely over the State.

### Advisories

- There was no rainfall in the State during last week and isolated rain / thundershowers is likely over the State. Under these conditions, apply required irrigation to the standing crops.
- Intercultural operation may be continued as and when required in **mustard, ginger** and **winter vegetables**.
- First top dressing in early sown **potato** (33 Kg Urea/ha) followed by earthing up and spray with 1.25 Kg Dithane M-45 in 500 litre water may be continued.

## Bihar

Weather was dry.

Mainly dry weather is likely over the State. Fall in night temperature by 2-3<sup>0</sup>C over the State.

### Advisories

- There was no rainfall during last week and mainly dry weather is likely over the State for next three days. Under the circumstances, apply required irrigation to bring the soil moisture to field capacity in **vegetables, maize, pulses, oilseeds** and **wheat**.
- Weeding, intercultural operations and top dressing operation may be continued in **rabi maize, pulses / oilseed** and **vegetable** crops.
- Preparation of nursery bed for sowing of **boro rice** may be continued.
- To avoid cold injury, immerse the field with water over night and drain out in the morning.
- To save **Boro rice** seedlings from cold injury apply light irrigation and in night protect it by polythene cover or thatch cover.

## Jharkhand

Weather remained mainly dry.

Mainly dry weather is likely over the State. Fall in night temperature by 2-3<sup>0</sup>C.

### Advisories

- There was no rainfall during last week and mainly dry weather is likely over the State for next three days. Under the circumstances, apply required irrigation to bring the soil moisture to field capacity in **vegetables, maize** and early sown **potato, pulses, oilseed** and **wheat** crops.
- Continue field preparation, sowing / transplanting of **onion, tomato, cabbage, cauliflower, brinjal, chilli, potato, garlic, pea** and early **summer vegetables**. To maintain optimum temperature in nursery beds, cover them with straw.
- Weeding, intercultural operation, application of fertilizer may be continued in early planted **vegetable, maize, rabi pulses, oilseed** and **potato** crops.
- Monitor the crop for attack of **fruit borer** in **arhar** and to control the borer spray Monocrotophos (1ml / litre of water).

## Sikkim

Sky remained generally cloudy during the period.

Mainly dry weather is likely over the State. Fall in night temperature by 2-3<sup>0</sup>C over the State.

### Advisories

- There are chances of cold injury due to anticipated fall in night temperature. Undertake the following measures to overcome cold injury.
  - Apply irrigation and arrange for smoke 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.
- There was no significant rainfall during the last few weeks and dry weather is likely to prevail over the State for the next three days. Under the circumstances, apply irrigation to **vegetables, mustard** and **wheat**.
- Undertake intercultural operations in **wheat, rabi vegetables** and **mustard** to keep the field weed free.
- Monitor **rabi vegetables** for pests like **leaf eating caterpillars** and if the pests population crosses ETL, undertake plant protection measures.
- Undertake weeding, application of fertilizers and pesticides in orchards particularly for **orange**.

## West Bengal

During the period weather remained mainly dry throughout the State.

Weather will be mainly dry over the State. Fall in night temperature by 2-3<sup>0</sup>C.

### Advisories

- As there was no significant rainfall in all the districts of the State during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane, rapeseed** and **mustard, gram** and **lentil, wheat** and **potato** crops.
- Apply second split dose of nitrogenous fertilizer (25 – 30 kg N / ha) at 40 – 45 days after sowing at tillering stage of **wheat**.
- To check Boron deficiency in **wheat** spray Borax @ 5 g / litre of water on the standing crop.
- Monitor blight disease in **wheat** and in the event of occurrence of this disease, apply Mancozeb @ 2.5 g per liter of water and spray 2 times at an interval of 7 days.

- 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.
- Land should be prepared and nursery sowing of **boro rice** may be carried out.
- Select varieties from CR-126-42-1, Khitish, IE-2233, PNR 381, IR-36, Lalat, Annada, Aditya, Tulsi etc. for short duration and Shasyasri, Prakash, Kunti, Ajaya, Pratap, Suraksha etc. for medium duration **boro rice**.
- There is mild chance of attack of brown spot disease in **rice** nurseries. If crosses economic threshold level, spray ediphenphos 50% @ 1 ml or triamiphos 48% @ 1 ml or carbendazim 50% @ 1 g to manage the disease. 750 litres of water is required for spraying 1 ha of land.

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

### Gujarat

Weather remained dry 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 weather will be mainly dry over the State for next three days, apply irrigation to **pre-monsoon irrigated cotton, Kharif cotton, 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 the seed bed for raising **rice** nursery. Give seed treatment with Amisan or captan @ 3 gms per kg seeds to prevent fungal diseases. To control seed borne diseases soak the seeds 8 to 10 hours in mixture of 6 g streptocycline and 12 g mercury compound in 25 liter water. Dry the seeds and use for nursery.
- 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.
- Apply first split dose of N @ 25 – 30 kg / ha at crown root initiation stage (20 – 25 days after sowing) and second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.

### Chhattisgarh

Weather remained dry in the State during the period.

Mainly dry weather is likely over the State.

#### Advisories

- As there was no significant rainfall in all the districts during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane, 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**.
- Apply second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.
- Undertake earthing up in **potato** crop.



## Maharashtra

Dry weather prevailed all over the State.

Mainly dry weather is likely over the State.

### Advisories

- As there was no significant 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.
- Inter cultural operation may be done 2 to 3 times in non-irrigated Jowar to preserve moisture in the field.
- Second dose of 40 kg Nitrogen / ha may be applied to late sown wheat after weeding.
- Second dose of 136 kg Nitrogen / ha may be applied after 6 to 8 weeks from planting of sugarcane (Pre-seasonal). Dose may be given with 1 kg Neem cake powder in 6 kg Urea.
- Second dose of 50 kg Nitrogen / ha may be applied to potato before irrigation.
- To increase pollination at flowering stage in sunflower, hand covered with woolen cloth may be moved 3 to 5 times on floral disc smoothly day after day early in the morning.
- Mild incidence of White Woolly Aphids in Aurangabad and Latur & Pyrilla, White fly & mealy bug in Nashik and white fly in Latur division in sugarcane, Aphids and Jassids in Nagpur and Aurangabad and also Lalya disease in Amravati, Aurangabad and Nagpur and Boll worm in Latur and Amravati division in cotton and leaf roller in Nagpur and Aurangabad, pod borer in Amravati and Latur division in tur, Aphids and Leaf cater pillar in Nashik division and Sugary disease in Latur and Kolhapur division in *rabi* jowar, Aphids in Latur & Aphids & Jassids in Amravati division in safflower, Rust in Kolhapur division in wheat, Pod borer in Pune, Latur, Kohlapur, Amravati and Nashik division in gram and Hairy cater pillar in Kohlapur, Aurangabad and Latur division in sunflower 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.
- Monitor Aphids in Safflower and if exceeds economic threshold level, spray 5 % Neem extract or spray 35 EC Endosulphon @ 700 ml or 25 EC Quinolphos @ 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 Quinolphos @ 1000 ml / ha in 500 liters water.
- Monitor Hairy cater pillar in Sunflower and if exceeds economic threshold level, spray 5% Neem extract or spray 35% Endosulphon @ 1000 ml or 25 % Quinolphos @ 1000 ml / ha in 500 liters water or dust 10% Carbaril powder or 1.5% Quinolphos powder @ 25 kg / ha.
- There is mild chance of occurrence of blast disease in onion. For the control of Blast disease, spray Blitox or Indofil M-45 @ 1250 gm/ha in 500 liter water.

## Madhya Pradesh

Dry weather prevailed over the State.

Mainly dry weather is likely over the State.

### Advisories

- Apply irrigation and arrange for smoke 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.

- There was no rainfall in all the districts during the last few weeks and mainly dry weather is likely to prevail for the next three days over the State. Under the circumstances, apply irrigation to early sown *rabi* crops like wheat, gram and mustard to bring the soil moisture to its field capacity.
- Undertake intercultural operations like weeding in early sown *rabi* crops like gram, mustard, wheat, masoor, linseed etc. to keep the field weed free.
- Monitor gram for leaf eating caterpillar. If the pest population crosses ETL, spray Monocrotophos @ 750 ml/ha.

## Orissa

Weather was dry over the State during the above period.

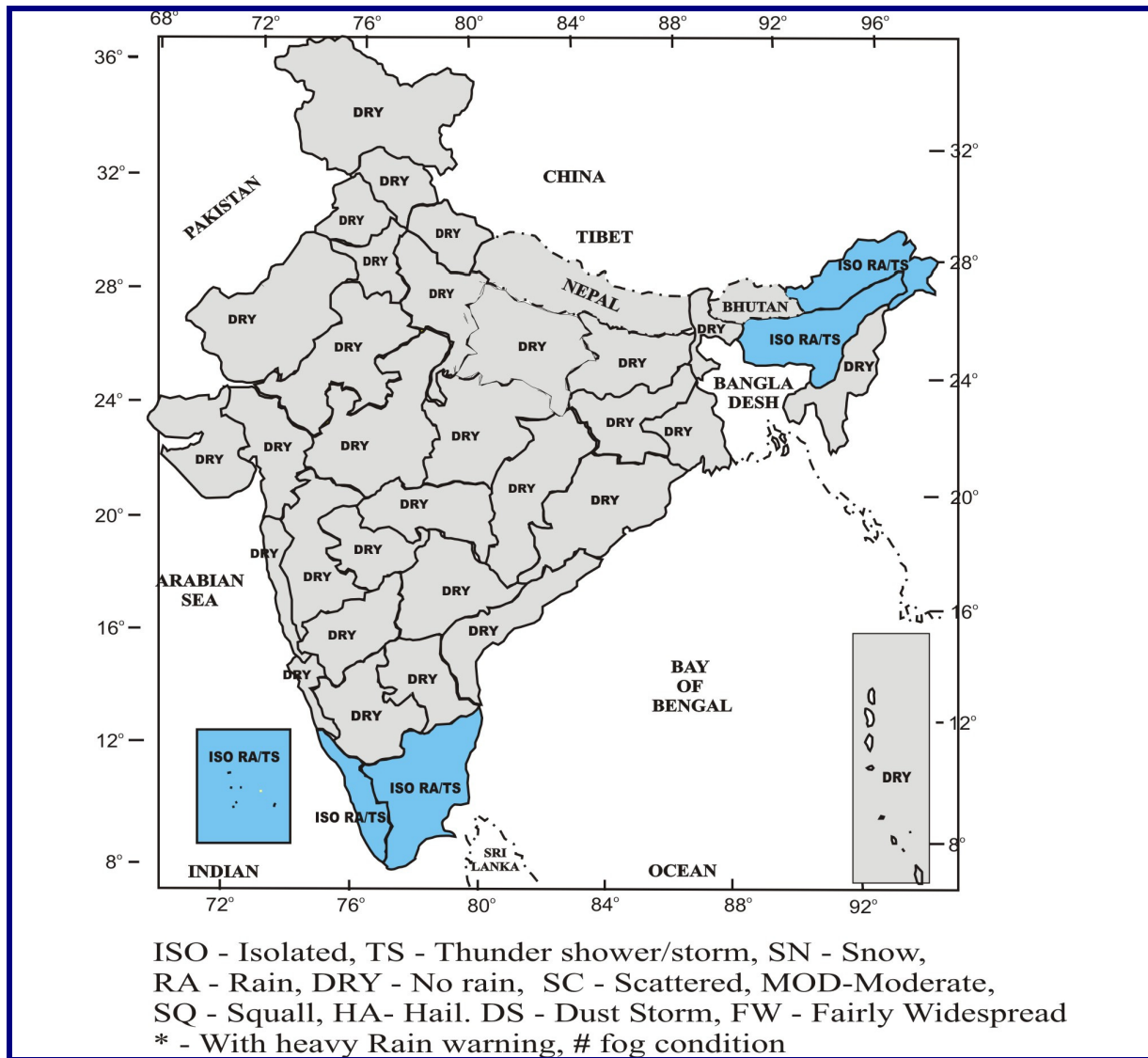
Mainly dry weather is likely over the State. Fall in night temperature by 2-3<sup>0</sup>C.

### Advisories

- There was no rainfall during last week and mainly dry weather is likely over the State for next 3 days. Under the circumstances, apply required irrigation to mustard, vegetables, groundnut and sugarcane to bring the soil moisture to field capacity.
- Continue nursery preparation and sowing of *dalua* rice.
- Monitor the crop for saw fly in mustard and spray Endosulfan @ 2 ml. / litre of water to control the pest if it crosses ETL.
- Monitor brinjal for *Epilachna* beetle and if it crosses ETL, spray Carbaryl @ 4 g/litre of water.
- Continue harvesting matured vegetables, sugarcane and pulse crops.

# Forecast Map

Valid upto 14<sup>th</sup> January 07



## *Salient weather features for the week ending 10/01/07*

### METEOROLOGICAL ANALYSIS

- A western disturbance as an upper air system lay over north Pakistan and neighbourhood on 4<sup>th</sup> & 5<sup>th</sup> January, over Jammu & Kashmir and neighbourhood on 6<sup>th</sup> January and moved away eastwards on 7<sup>th</sup> January.
- Another western disturbance as an upper air system lay over north Pakistan and adjoining Jammu & Kashmir on 9<sup>th</sup> January and moved away eastwards on 10<sup>th</sup> January.
- An upper air cyclonic circulation extending upto lower tropospheric levels lay over Assam and neighbourhood during many days of the week.
- A weak easterly wave affected Nicobar Islands and extreme south peninsula during the week.

### RAINFALL

Under the influence of the above systems:

- Scattered snowfall activity occurred over higher ridges of Jammu & Kashmir on 10<sup>th</sup> January.
- Isolated light rainfall occurred over Tamil Nadu and Andaman & Nicobar Islands during a few days of the week.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

#### **FOG**

- Morning fog conditions prevailed over some parts of East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal and adjoining Assam on 4<sup>th</sup>, 5<sup>th</sup> and 7<sup>th</sup> and prevailed over some parts of the plains of northwest India during 9-10<sup>th</sup> January.

#### **MINIMUM TEMPERATURES**

- Cold wave conditions prevailed over many parts of Punjab and some parts in the remaining plains of northwest India throughout the week.
- Cold wave conditions also prevailed over East Uttar Pradesh on many days and over Bihar, Jharkhand and Rajasthan on a few days during the week.
- The minimum temperatures were below normal by 2-3°C over remaining parts of Indo-Gangetic plains throughout the week.
- They were below normal by 2-3°C during 4-5<sup>th</sup> January and were normal during the remaining days of the week over most parts of peninsular India. They were normal over central and northwest India.

#### **RAINFALL DURING THE WEEK ENDING ON 10<sup>TH</sup> JANUARY, 2007.**

Rainfall was deficient/scanty in 2 and no rain in 34 out of 36 meteorological sub-divisions (Actual: 0.0 mm, Normal: 4.6 mm and Departure: -99%).

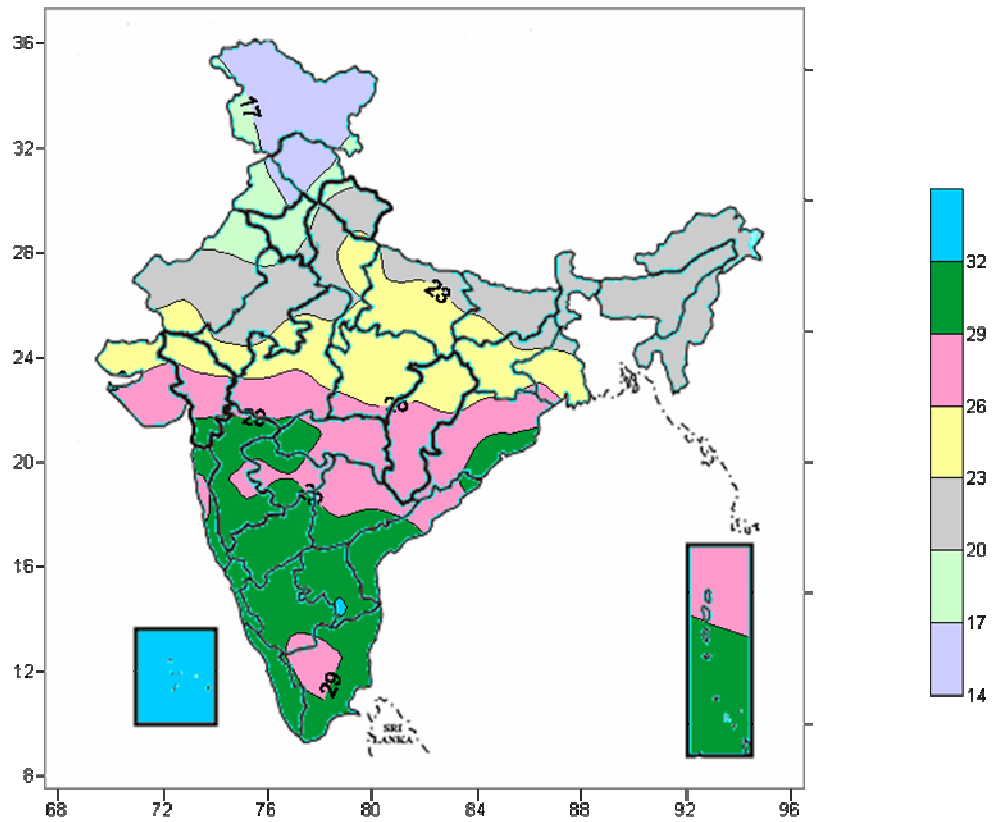
#### **CUMULATIVE SEASONAL RAINFALL (1<sup>ST</sup> JANUARY TO 10<sup>TH</sup> JANUARY, 2006)**

Rainfall was deficient/scanty in 5 and no rain in 31 out of 36 meteorological sub-divisions. (Actual: 0.1 mm, Normal: 6.2 mm and Departure: -98%).

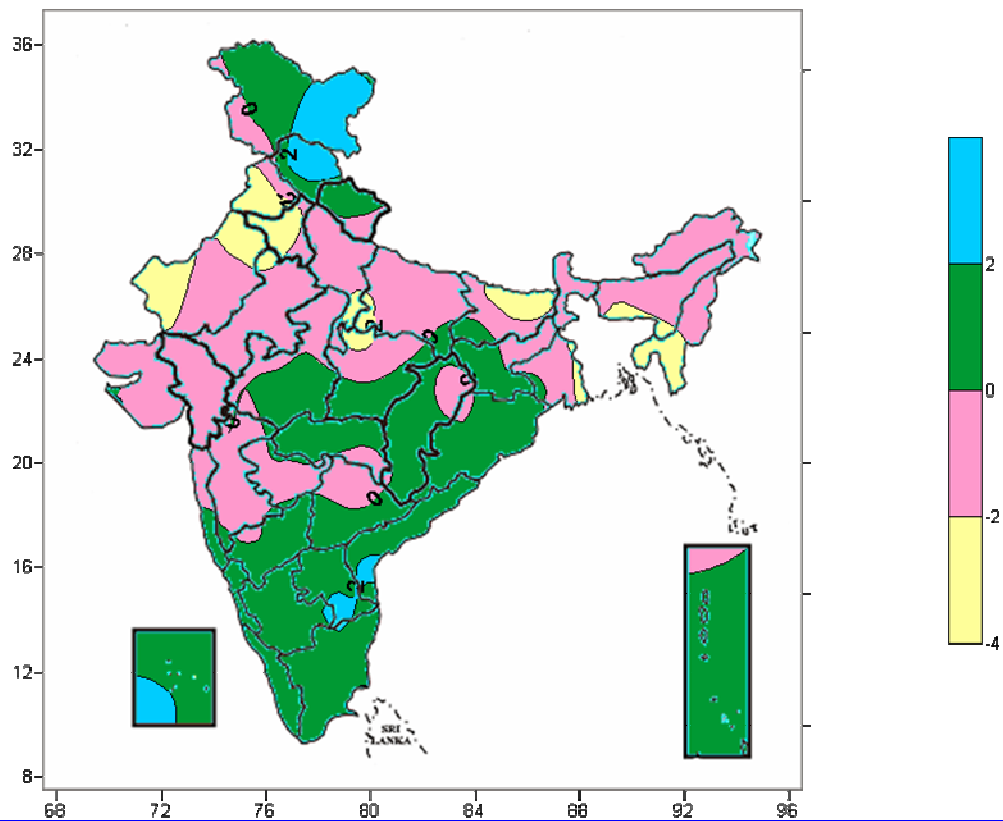
#### **OUTLOOK FOR THE WEEK ENDING ON 17<sup>TH</sup> JANUARY, 2007.**

- Cold wave conditions are likely to continue over some parts in the plains of northwest India during the week. They are also likely over East Uttar Pradesh and Bihar from middle of the week.
- A fresh western disturbance is likely to affect western Himalayan region from 17<sup>th</sup> January onwards.

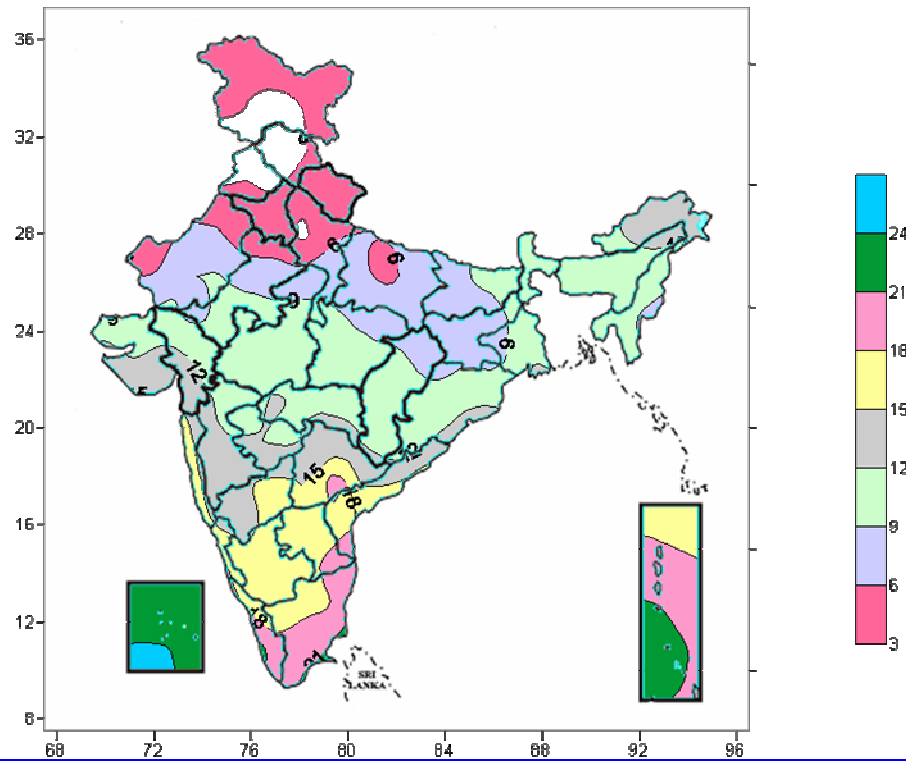
**Actual mean maximum Temperature (°C) in India for the week ending 10.01.07**



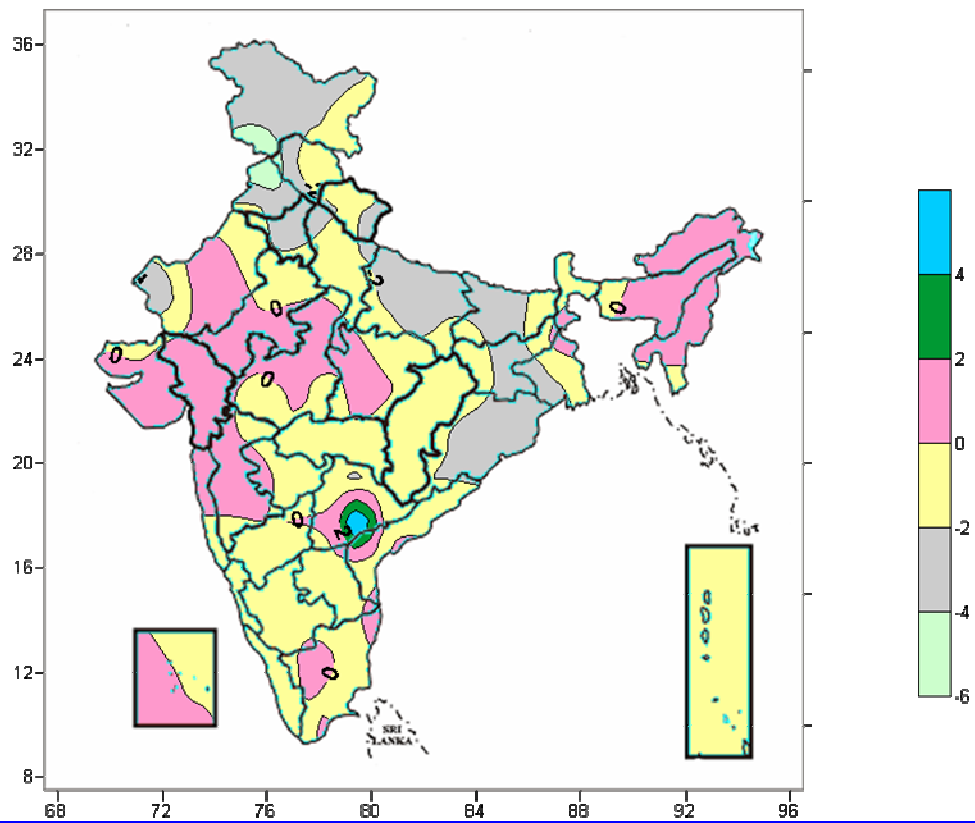
**Maximum Temperature (°C) Anomaly in India for the week ending 10.01.07**



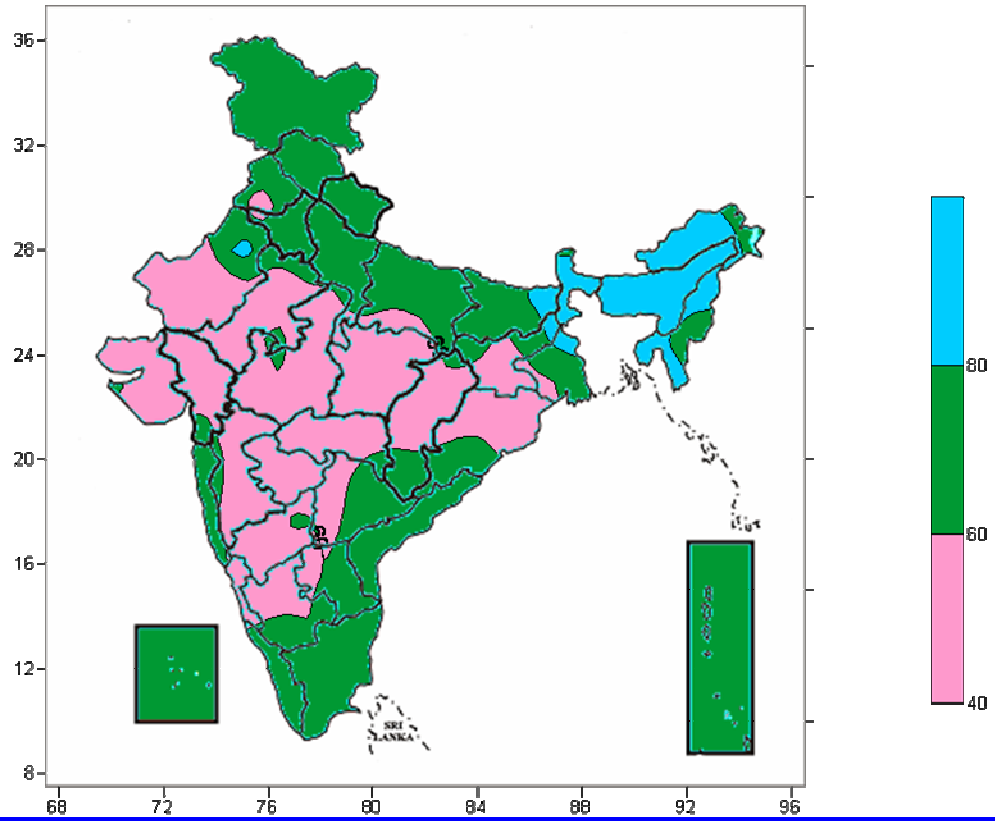
**Actual mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 10.01.07**



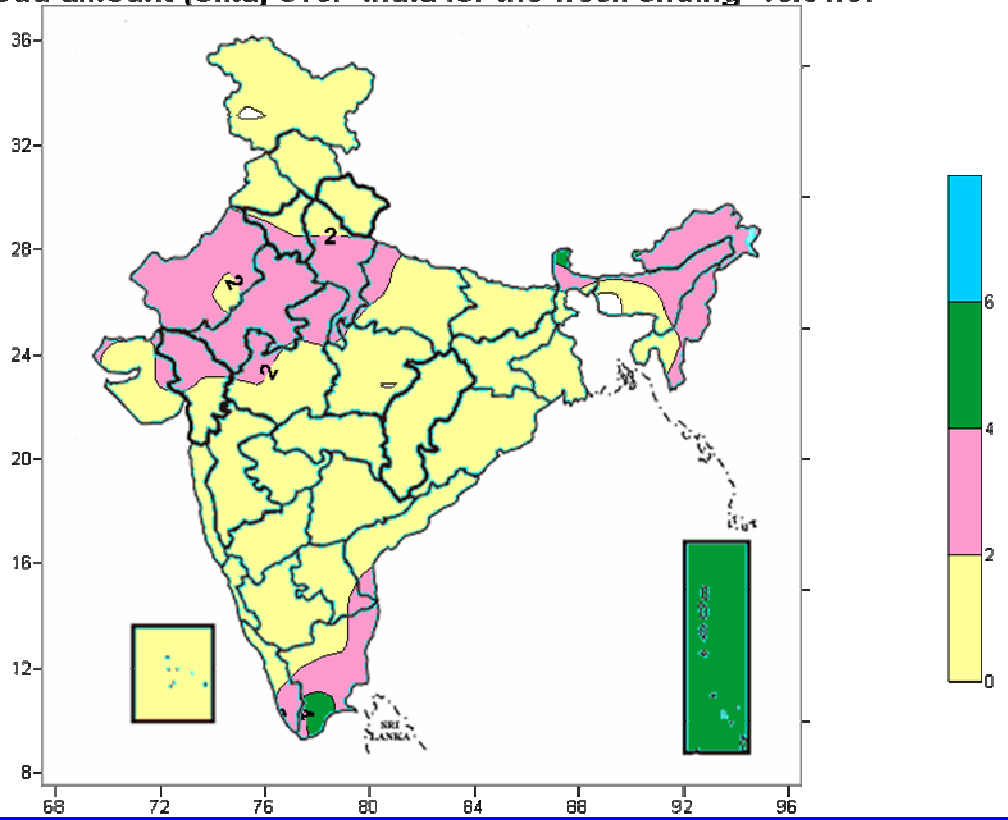
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 10.01.07**



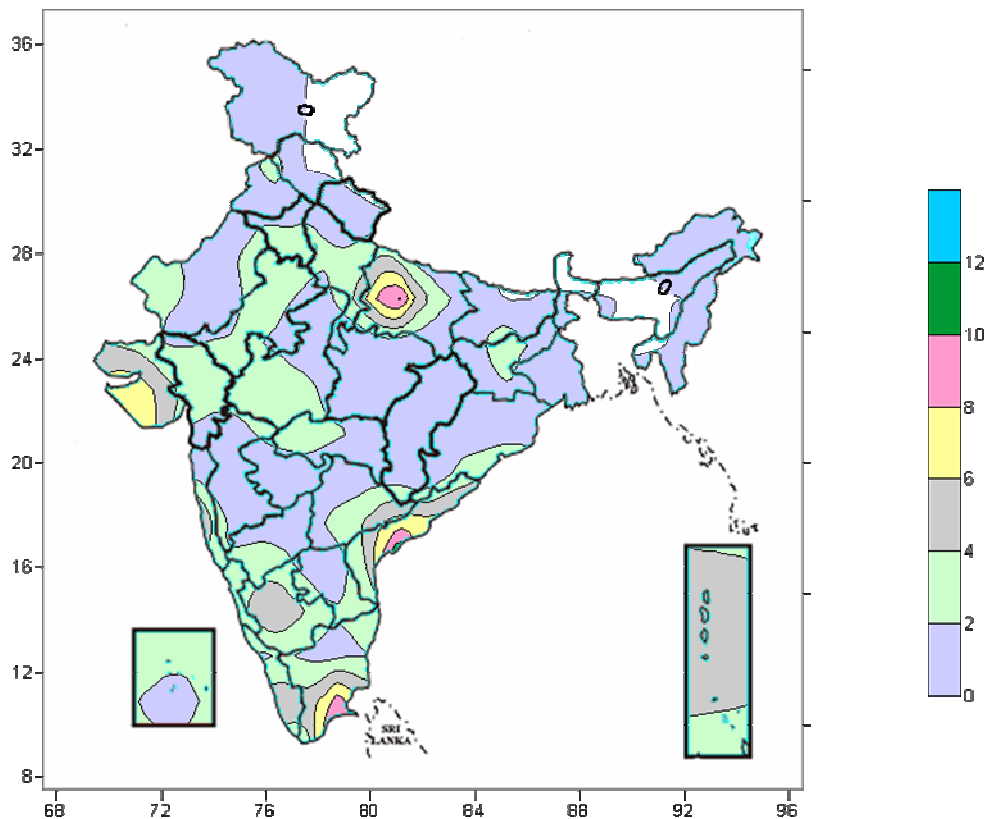
**Relative humidity (%) over India for the week ending 10.01.07**



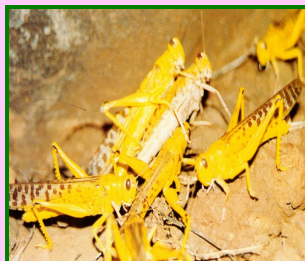
**Cloud amount (okta) over India for the week ending 10.01.07**



**Wind speed (knots) over India for the week ending 10.01.07**



## Desert Locust Forecasting



### Rainfall (mm)

Station Name	4.1.07	5.1.07	6.1.07	7.1.07	8.1.07	9.1.07	10.1.07
Amritsar	NIL						
Barmer							
Sriganganagar							
Jaisalmer							
Kota							
Deesa							
Churu							

### Temperature (degree celcius)

Station Name	4.1.07	5.1.07	6.1.07	7.1.07	8.1.07	9.1.07	10.1.07
Amritsar	-	9.0	8.5	7.5	7.5	8.5	8.5
Barmer	16.0	16.5	19.5	13.0	12.5	14.0	15.0
Sriganganagar	12.0	11.5	10.0	10.0	10.0	11.5	11.0
Jaisalmer	-	14.0	18.5	13.0	12.5	13.0	13.5
Kota	16.5	16.5	16.5	15.0	14.0	15.5	19.0
Deesa	18.5	19.0	18.0	18.0	17.5	19.5	19.5
Churu	-	-	-	-	-	-	-

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



## CROP – STATE – STAGE

### Delhi

<b>Barley /Gram</b>	<b>Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot,and turnip</b>	<b>Early sown vegetable crops</b>	<b>Wheat</b>	<b>Mustard</b>
Vegetative	Sowing/ Transplanting	Vegetative/ flowering/ fruiting/ harvesting	Crown root initiation / tillering	Vegetative / flowering

### Haryana

<b>Horticultural crop</b>	<b>Sugarcane</b>	<b>Gram /Lentil</b>	<b>Rabi oilseeds</b>	<b>Wheat</b>
Vegetative	Vegetative	Early vegetative	Vegetative	Tillering
<b>Toria</b>	<b>Sunflower</b>			
Maturity / 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>
Crown root initiation/Tillering	Vegetative	Nursery sowing /Transplanting	Vegetative/flowering / fruiting / harvesting	Vegetative
	<b>Rape seeds and Mustard</b>		<b>Radish, Turnip, Carrot</b>	
	Vegetative		Sowing	

### Jammu & Kashmir

<b>Vegetable crops</b>	<b>Toria / Brown Sarson</b>	<b>Mustard</b>	<b>Gram</b>	<b>Wheat</b>
Vegetative	Seed formation	Siliqua formation	Pod development	Tillering
		<b>Pea / Lentil</b>		
		Pod development		

### Punjab

<b>Sugarcane</b>	<b>Rabi oilseeds</b>	<b>Gram/Lentil</b>	<b>Horticultural crop</b>	<b>Wheat</b>
Vegetative	Vegetative	Vegetative	Vegetative	Early vegetative / tillering
<b>Toria</b>	<b>Sunflower</b>			
Maturity / harvesting	Sowing			

### Rajasthan

<b>Mustard</b>	<b>Wheat</b>	<b>Cumin</b>	<b>Gram</b>	<b>Barley</b>
Flowering	Tillering	Vegetative	Flowering	Tillering

### Uttar Pradesh

<b>Wheat / Barley</b>	<b>Rabi pulses</b>	<b>Sugarcane</b>	<b>Mango</b>	<b>Winter Vegetables</b>
Early vegetative	Vegetative / flowering/seed formation	Harvesting	Active growth / matured tree	Vegetative
	<b>Rabi Oilseeds( Rai and Mustard)</b>	<b>Toria</b>		
	Vegetative / flowering	Seed maturity/Harvesting		

### Uttaranchal

<b>Pea</b>	<b>Mango/Litchi</b>	<b>Wheat</b>	<b>Sugarcane</b>	<b>Toria</b>
Harvesting	Active growth	Tillering	Maturity / harvesting	Pod maturity/Harvesting
<b>Potato</b>				
Tuber growth				

### Assam

<b>Early sown Vegetables</b>	<b>Sugarcane</b>	<b>Wheat</b>	<b>Vegetables</b>	<b>Potato</b>
Vegetative/Flowering/Fruiting	Harvesting	Tillering	Land preparation / sowing	Earthingup/tuberozation
<b>Pea and Lentil</b>	<b>Arhar</b>	<b>Rape seed and Mustard</b>	<b>Boro Rice</b>	<b>Early transplanted Boro Rice</b>
Vegetative/Flowering	Maturity/Harvesting	Flowering / pod formation	Transplanting	Early vegetative

### Arunachal Pradesh

<b>Mustard</b>	<b>Ginger</b>	<b>Potato</b>	<b>Wheat</b>	<b>Winter vegetables</b>
Vegetative/Flowering	Vegetative	Early vegetative	Vegetative	Vegetative /Harvesting
<b>Early sown Potato</b>				
Tuber formation				

<b>Bihar</b>				
Fruits and Vegetables	Winter vegetables	Wheat	Early sown Wheat	Rabi Maize
Vegetative	Sowing / transplanting	Early vegetative	Vegetative	Vegetative / Tasseling
	<b>Boro Rice</b>	<b>Potato</b>	<b>Rabi Oil seeds (Toria, Sarson, Linseed)</b>	<b>Rabi Pulses (Lentil, Gram, Pea)</b>
	Field preparation / nursery sowing	Early vegetative	Vegetative/Flowering	Flowering/Pod formation

<b>Jharkhand</b>			
Rice	Rabi Maize	Wheat	Potato
Harvesting	Vegetative	Seedling / early vegetative	Vegetative
<b>Rabi vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)</b>	Early planted vegetables	<b>Rabi pulses and oilseeds (Gram, masoor, lentil, linseed, oat, mustard and kusum)</b>	<b>Rabi pulses and oilseeds (Arhar)</b>
( Sowing / transplanting - Onion, Pea )	Vegetative	Vegetative	Pod formation

<b>Sikkim</b>				
Orange	Mustard	Rabi vegetables	Wheat	
---	Flowering	Late Vegetative/Flowering	Tillering	

<b>West Bengal</b>				
Boro rice	Sugarcane	Wheat	Rapeseed and Mustard	Gram/ Lentil
Field preparation / nursery sowing	Cane development/Maturity	Tillering	Vegetative / flowering	Vegetative/ Flowering
	<b>Potato</b>			
	Earthing up/tuber formation			

<b>Chattisgarh</b>				
Gram / Mustard	Vegetables (Tomato, chilli, brinjal)	Sugarcane	Wheat	Linseed, Safflower,
Vegetative / branching	Vegetative	Cane development / maturity	Tillering	Vegetative
<b>Sunflower</b>	<b>Early Sown Sunflower</b>	<b>Potato</b>	<b>New crops Sugarcane</b>	
Field preparation / sowing	Germination / early vegetative / vegetative	Earthing up / tuber formation	Planting	

<b>Gujarat</b>				
Mustard	Wheat	Pre-monsoon irrigated Cotton	Castor	Sugarcane
Flowering / pod formation	Germination/Early vegetative/Crown root initiation/Tillering	Boll formation / picking	Flowering / Pod formation	Maturity / Harvesting
<b>Kharif Cotton</b>	<b>Early Sown Wheat</b>	<b>Summer Rice</b>		
boll formation	Germination / early vegetative / crown root initiation / tillering	Preparation of rice nursery		

<b>Maharashtra</b>				
Sugarcane (Seasonal) (Madhya Maharashtra, Marthwada and Vidarbha)	Kharif cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Tur (Madhya Maharashtra, Marathwada & Vidarbha)	Irrigated Cotton	Rabi Jowar (Madhya Maharashtra, Marathwada & Vidarbha)
cane maturity / harvesting	Boll maturity / picking	Pod maturity / harvesting	Boll maturity / picking	Flowering / grain formation
<b>Safflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Wheat (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Gram (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Maize (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Flowering / head formation	Tillering /Flowering	Flowering / pod formation	Tasseling / Silking/cob initiation	F/loweringHead formation

<b>Sugarcane Preseasonal</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Potato</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Onion</b> (Madhya Maharashtra, Marathwada & Vidarbha)		
Sprouting / early vegetative	Earthing up / tuber formation	Vegetative / bulb formation/bulb growth		

**Madhya Pradesh**

<b>Wheat</b>	<b>Mustard</b>	<b>Gram</b>	<b>Masoor</b>	<b>Linseed</b>
Flowering / earhead emergence	Flowering	Flowering	Flowering	Flowering
<b>Irrigated Wheat</b>				
Vegetative				

**Orissa**

<b>Vegetables</b>	<b>Dalua Rice</b>	<b>Mustard</b>	<b>Pulses</b>	<b>Early sown pulses</b>
Flowering / Fruiting / Harvesting	Nursery preparation, sowing /Transplanting (in some parts)	Vegetative / Flowering	Vegetative / flowering (Biri / Mung / Kulthi)	Pod maturity
<b>Sugarcane</b>	<b>Rabi Groundnut</b>			
Maturity / harvesting	Vegetative / flowering			

**Andhra Pradesh**

<b>Rabi Groundnut</b>	<b>Rabi Maize</b>	<b>Gram</b>	<b>Rabi red gram</b>	<b>Rabi rice</b>
Vegetative	Vegetative	Vegetative (Prakasam)/Pod formation (Telangana, Rayalaseema)	Vegetative	Raising nursery / transplanting

**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	Grain formation	Grain formation	Germination/Early vegetative	Seedling/Transplanting

**Kerala**

<b>Rubber</b>	<b>Mundakan rice</b>			
Tapping	Grain maturity			

**Tamil Nadu**

<b>Rice (Samba)</b>	<b>Millets</b>	<b>Cotton</b>	<b>Early &amp; mid sugarcane</b>	<b>Oilseeds (Groundnut,)</b>
Tillering	Vegetative/Flowering	Vegetative	Harvesting	Vegetative
<b>Sunflower</b>	<b>Pulses (Black gram and Green gram)</b>	<b>Thaladi Rice</b>		
Vegetative	Vegetative	Raising Nursery		

\*\*\*\*\*