



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

**Thursday, 1<sup>st</sup> February, 2007**

(For the period 1<sup>st</sup> February to 5<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**

Rainfall occurred at isolated places on 30<sup>th</sup> January and at many places on 31<sup>st</sup> January in the State. Weather remained dry in the State during the rest days.

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 for the next three days. Under the circumstances, apply irrigation in **sugarcane, rabi oilseeds, gram, lentil and wheat**.
- 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 attack of **aphids** and if the pest 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 / ha to control **aphids** in **wheat**.

**Haryana**

Rainfall occurred at many parts of the State on 30<sup>th</sup> and 31<sup>st</sup> January. Weather remained dry in the State during the remaining period.

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 irrigation to **sugarcane, gram, lentil and wheat**.
- Attack of **late blight** is reported in **potato**. In order to check further spread of the disease, spray Dithane M-45 @ 500 g/acre.
- Continue sowing of **sunflower**.
- 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**.

**Rajasthan**

Rain / thundershowers recorded at isolated places in **Jaipur** and **Kota** divisions and weather remained mainly dry in rest divisions of the State.

Mainly dry weather is likely over the State. Fall in night temperature by 2-3°C over the State during next 24 hours.

**Advisories**

- Apply irrigation to **mustard, wheat, gram, cumin and barley** as there was no significant rainfall during last week and mainly dry weather is likely over the State.

- Monitor **mustard** for attack of **aphids** and if the pest population crosses ETL, dust Methyl parathion 2% or spray Endosulfan 35 EC @ 1.25 lit / ha.
- Also monitor **gram** for **pod borer** and **cumin** for **aphids** and if the pest population crosses ETL, undertake plant protection measures.
- Apply Aldrin 30 EC @ 5 litres / ha in irrigation water to **control termite** in **wheat**.

## Uttar Pradesh

Mainly dry weather is likely over the State.

### 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.
- 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 pest population crosses ETL, spray Monocrotophos @ 1 ml / litres of water to control the pests.
- Harvesting of **sugarcane** and **toria** may be continued.

## Himachal Pradesh

The weather was mainly dry during the period.

Mainly dry weather is likely over the State.

### Advisories

- As there was no significant rain during last few weeks over the State and mainly dry weather is likely 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 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.
- Undertake nursery preparation of **onion** with N – 53 variety

## Uttarakhand

Light rain occurred at isolated places in Kumaon region on 30<sup>th</sup> January, while mainly dry weather prevailed during rest of the week. Sky remained mainly clear to partly cloudy during the period.

Mainly dry weather is likely over the State.

### Advisories

- Apply irrigation to **mango, potato and wheat** crops as there was no significant rainfall during last week in the State.
- Carryout inter cultural operation in **mango, wheat and potato** crops to keep the field weed free.
- Continue harvesting matured crops of **toria, sugarcane and pea**.

## Jammu & Kashmir

Light to moderate rain / snow occurred at a few places on 29<sup>th</sup> January over J & K state. Weather remained mainly dry for rest of the days.

Isolated rain / snow is likely to occur over Jammu & Kashmir on 3<sup>rd</sup> & 4<sup>th</sup> February.

### Advisories

- Apply irrigation to **mustard, wheat, peas** and **rabi** vegetables.
- Rouge out **late blight** affected crops of **potato** in Jammu division to prevent further spread of the disease.
- 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 transplanting of **tomato, onion** and **knoll-kholl**.

## Delhi

Very light rain occurred at many places on 30<sup>th</sup> January. Weather remained dry on rest of the days.

Mainly dry weather is likely over the State.

### 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.
- Apply second irrigation at tillering stage (40 – 45 days after sowing) and third irrigation at 60 – 65 days after sowing of **wheat**.
- Prepare land and perform sowing of **pumpkin**.
- Apply second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.
- 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

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 the matured crop.
- Attack of **bunchy top disease** is reported in **banana**. Apply 12.5% Phorate 10G or 10 gm Carbofuran 3G / plant in leaf axil or 25 gm Phorate or 20 gm Carbofuran / pit in soil.
- Attack of **leaf eating caterpillar** is reported in coconut. Cut and burn the affected leaves. Release larvae and pupal parasitoids to control the pest biologically.

### Tamilnadu

Rainfall occurred at one or two places over South Tamilnadu and mainly dry weather prevailed over North

Tamilnadu on 29<sup>th</sup> January and dry weather prevailed over the State on 30<sup>th</sup> and 31<sup>st</sup> January.

Mainly dry weather is likely over the State

#### **Advisories**

- Apply irrigation to the **rice, millets, sunflower, cotton and groundnut** as dry weather is likely to prevail for the next three days.
- Continue land preparation and sowing of **maize and rice fallow pulses**. Undertake planting of **early sugarcane**.
- 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 the days.

Mainly dry weather is likely over the State.

#### **Advisories**

- Apply irrigation to **jowar, sunflower, wheat and maize** as there was no significant rainfall during last few weeks and mainly dry weather is likely to prevail for the next three days.
- Undertake intercultural operations in **wheat and sugarcane** to keep the field weed free.
- Undertake transplanting of **summer rice** in the main field. Maintain thin film of water at the time of transplanting.
- Monitor ratoon **sugarcane** for **wooly aphids** and if the pest population crosses ETL, release *Dipha* sp, adopt wider spacing, inter-cropping with soyabean and pulses of short duration as plant protection measures against **wooly aphids** in **Mysore, Mandya and Hassan** districts. Also monitor the crop for **army worm** in **Bidar and Bagalkote** districts and if the pest population crosses ETL, undertake plant protection measures.

#### **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 over the State 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.
- Continue transplanting of **rabi rice**. Maintain thin film of water at the time of transplanting in the main field.
- Attack of **stem borer** is reported in **Maize**. To control stem borer spray Endosulfan 2ml/litre of water.
- Attack of **thrips** is reported in **Groundnut**. To control thrips spray monocrotophos @ 1.6 ml / litre of water + neem oil @ 5ml + washing powder @ 5 gm / liter of water twice at 10-15 days interval.
- Attack of **Maruka stem borer** is reported in **red gram**. Spray Dichlorovos @ 1ml + Chlorypyriphos @ 2.5 ml / liter of water to control the pest.

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

##### **Assam**

Weather was mainly dry over the State during the period.

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

### Advisories

- As there was no significant rain during last few weeks and isolated rain / thundershower is likely over the State for next 24 hours and mainly dry weather is likely thereafter, 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.
- 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.
- There is mild chance of 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.
- Maintain 3 – 5 cm water at tillering stage in the **rice** field.

### Arunachal Pradesh

Sky remained partly cloudy to mainly clear over the State. Light rain occurred at one or two places on 31<sup>st</sup> January and weather remained dry on other days of the period.

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

### Advisories

- There was no significant rainfall in the State during last few weeks and isolated rain / thundershowers are likely over the State during next 24 hours. Under these conditions, apply irrigation to **winter vegetables, potato, mustard, wheat** and **ginger** crops.
- 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.

### Bihar

Weather was mainly dry.

Mainly dry weather is likely to prevail over the state.

## Advisories

- There was no rainfall during last few weeks and mainly dry weather is likely over the State for 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 (40 – 45 days after sowing) of **wheat**.
- There is mild chance of attack of **late blight** attack in **potato**. If **late blight** attack crosses economic threshold level, spray Mancozeb @ 2 kg / ha or Mancozeb mixed with Metalaxyl @ 2 kg / ha. 2-3 spraying may be required at an interval of 15 days.
- There is mild chance of attack of **blight** in **pulses**. If **blight** attack crosses economic threshold level, spray Mancozeb mixed with Carbendazim which is available in market or saaf @ 2kg/ha.
- There is mild chance of attack of **aphids** in **rai** and **sarson**. If attack of **aphids** crosses economic threshold level, spray Imidachlorpid @ 100ml / ha or acephate @ 800 g / ha in evening hours.
- Monitor **rabi maize** for pest and diseases and if there is considerable symptom of leaf blight on leaves spray Mancozeb @ 2-2.5 Kg / ha.
- Prepare land and start 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

Weather remained mainly dry. Minimum temperature was appreciably above normal at most places in the State.

Mainly dry weather is likely to prevail 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 irrigation to bring the soil moisture to field capacity in **vegetables, maize and potato, pulses, oilseed and wheat** crops.
- Continue field preparation and sowing of summer vegetables like **pumpkin, Kadima, Khira, watermelon, and kharbooj**.
- Apply split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.
- 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 (1.5gm 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 Vanguard @ 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 @ 1ml / litre of water.

## Sikkim

Sky remained generally cloudy during the period. No rain occurred during the period over Sikkim.

Isolated rain / thundershower are likely over the State.

## Advisories

- Apply irrigation to **vegetables, mustard and wheat** as there was no significant rainfall during the last few weeks and isolated rain / thundershower is likely over the State for the next three days.

- Monitor *rabi* vegetables for pests like leaf eating caterpillars and if the pest population crosses ETL, undertake plant protection measures.
- Monitor orange for trunk borer and plug the holes made by the pest to prevent further damage. Remove parasitic weeds over grown up tree.
- Caterpillar / stemborer in large cardamom plantations may be handpicked and destroyed mechanically. Chirkey and Foorkey affected plants may be destroyed by burning.

## West Bengal

During the period weather was mainly dry.

Isolated rain / thunder shower is likely to occur over Sub-Himalayan West Bengal. Mainly dry weather is likely over rest of the State.

### Advisories

- As there was no significant rainfall in the State during last few weeks and isolated rain / thunder shower is likely to occur over Sub-Himalayan West Bengal and mainly dry weather is likely over rest of 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.
- 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.
- 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 transplanting of boro rice may be carried out. Prepare land and 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.
- 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

Rainfall occurred at isolated places over South Gujarat region, Saurashtra, Diu, Daman, Dadra Nagar Haveli on 30<sup>th</sup> January.

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

### 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 land and start transplanting of rice seedling. Transplant 2 – 3 plants / hill. Maintain 2 – 3 cm water in rice field 2 – 3 days after transplanting.

- Apply 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 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.
- There is mild chance of attack of semi looper in **castor**. For controlling semi looper spray endosulphan 35 EC or quinalphos 25 EC or Monocrotophos 36% SL at the interval 15 days.
- 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> at the time of sowing as basal dose.

## Chhattisgarh

Weather remained dry in the State during the period.

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

### Advisories

- As there was no 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**. 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.
- Apply second split dose of N @ 25 – 30 kg / ha at tillering stage (40 – 45 days after sowing) of **wheat**.

## Maharashtra

Light rain has occurred at isolated places in South Konkan on 29<sup>th</sup> & in South Madhya Maharashtra on 30<sup>th</sup> January. Mainly dry weather prevailed over rest of the State.

Mainly dry weather is likely over the State. Fall in night temperature by 2-3<sup>0</sup>C 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**.
- 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.
- Prepare land for sowing of **summer groundnut**. For sowing select a variety from SB-11, M-13, GT-26, TAG-24, TPG-41 & Koyana.
- Mild incidence of **White Woolly Aphids in Latur & Pyrilla & White fly in Nashik and White Fly in Pune and Latur division in sugarcane, Aphids and Jassids in Nagpur and Aurangabad and also Lalya disease in Amravati, Aurangabad and Nagpur and Boll worm in Amravati division in cotton and leaf roller in Nagpur and Aurangabad, pod borer in Amravati division in tur, Aphids and Leaf cater pillar in Nashik division and Sugary disease in Pune 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, Hairy cater pillar in Kohlapur and Aurangabad division in sunflower and late blight in Pune, Ahmednagar and Satara districts in potato** 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 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.
- For the control of Late blight of **potato**, spray Copper oxychloride 2500 gm / ha or Captan 2500 gm / ha in 750 to 1000 liter water or Metalaxil + Mancozeb 2500 gm / ha in 1000 liter water. Second spraying may be done after 15 days.

## Madhya Pradesh

Rainfall occurred at isolated places in South West M.P. on 30<sup>th</sup> January, North M.P. on 31<sup>st</sup> January, light rain also occurred at isolated places in West M.P. on 30<sup>th</sup> January and North East M.P. on 31<sup>st</sup> January.

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

### Advisories

- There was no significant 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 **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.
- Monitor **mustard**, **masoor** and **linseed** for **mahu** insect and apply Methyl Parathion 2% dust @ 20 kg / ha to control the pest.

## Orissa

Weather was dry over the State during the above period.

Mainly dry weather is likely over the State.

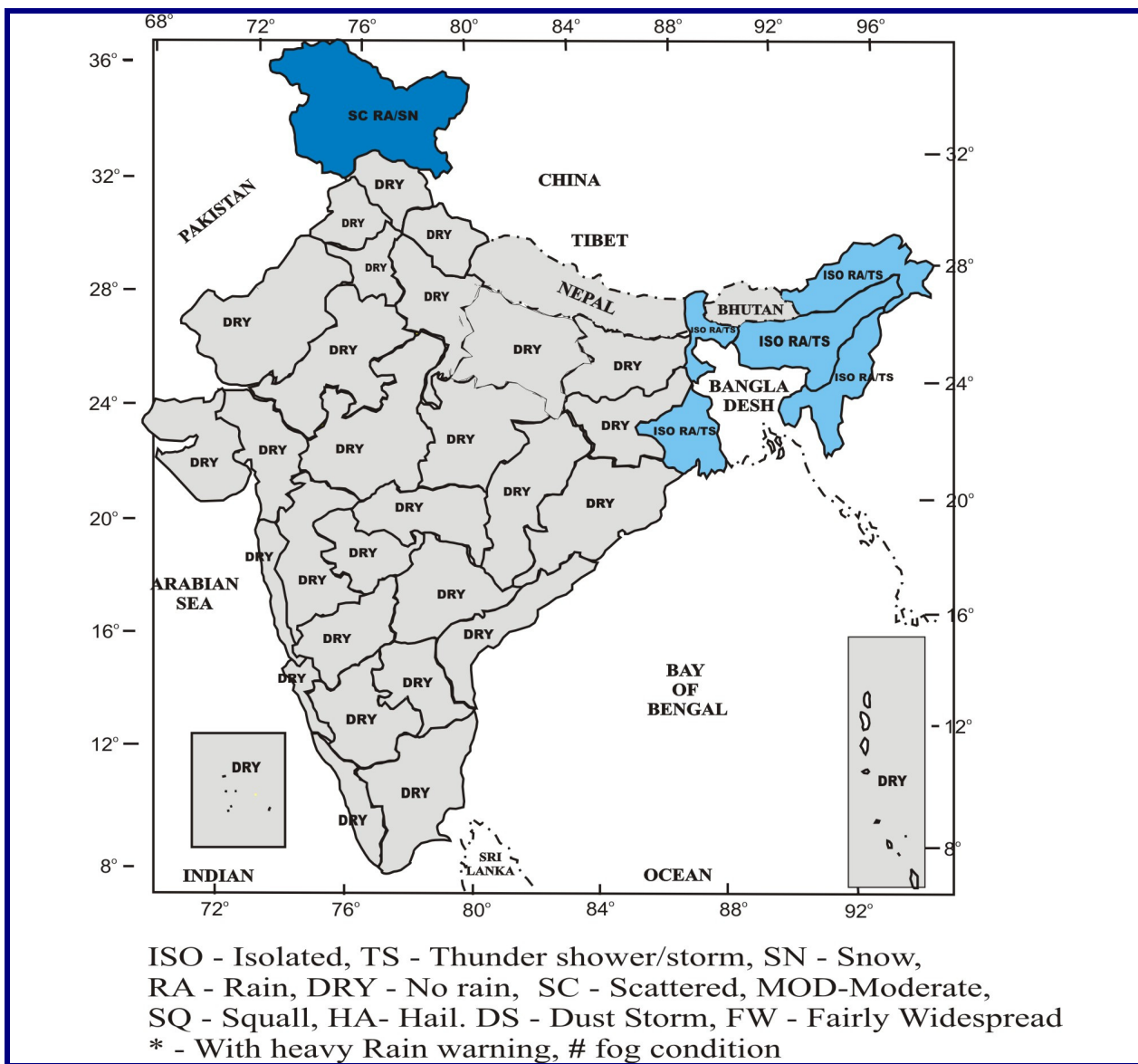
### Advisories

- 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 **mustard**, **vegetables**, **groundnut** and **pulses** to bring the soil moisture to field capacity.
- Continue 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..
- If thrips and aphids population in **rabi groundnut** crosses ETL, spray Dimethoate @ 400 ml or Imidachloprid @ 50 ml in 200 litres of water per acre.
- If tikka disease in **rabi groundnut** crosses ETL, spray 500 gm copper oxychloride in 200 litres of water per acre.
- Monitor **brinjal** for *Epilachna* beetle and if it crosses ETL, spray Carboryl @ 4 g / litre of water.

## Forecast Map

Valid upto 4<sup>th</sup> February 07



## *Salient weather features for the week ending 31/01/07*

### METEOROLOGICAL ANALYSIS

- A western disturbance affected Western Himalayan region during 26-28<sup>th</sup> January and moved away eastwards thereafter.

- An upper air cyclonic circulation at lower levels lay over south Rajasthan and neighbourhood on 29th with a trough from the system running upto Haryana. It lay over northeast Rajasthan and neighbourhood on 30<sup>th</sup> January and became less marked on 31<sup>st</sup> January.
- A trough in the westerlies at lower levels ran from Sub-Himalayan West Bengal & Sikkim to north Orissa on 31<sup>st</sup> January.
- A westerly wave affected Nicobar Islands, south Peninsula and Lakshadweep during the week.

## **RAINFALL**

Under the influence of the above systems:

- Scattered to isolated rain/snowfall occurred over Jammu & Kashmir during 27-29<sup>th</sup> January.
- Isolated rain/thundershowers occurred over plains of northwest India, West Madhya Pradesh and west India outside Marathwada on 30<sup>th</sup> January and over Haryana, East Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar and northeastern States on 31<sup>st</sup> January.
- Isolated rain/thundershowers also occurred over Nicobar Islands on 29<sup>th</sup> January, over Tamil Nadu and Kerala during 27-29<sup>th</sup> January, over Coastal Karnataka on 28-29<sup>th</sup> January and over Lakshadweep during 28-30<sup>th</sup> January.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

## **MINIMUM TEMPERATURES**

- The night temperatures over northwest India were normal on first two days of the week. They became above normal by 2-3°C during 27-28<sup>th</sup> and by 4-5°C during 29-30<sup>th</sup> January. The night temperatures had a decreasing trend thereafter, being 2-3°C above normal on 31<sup>st</sup> January.
- They were above normal over many parts of west India by 2-4°C during 25-28<sup>th</sup> and by 4-6°C during remaining days of the week.
- They were normal over central India during 25-26<sup>th</sup> January. They were above normal by 2-4°C over Madhya Pradesh and normal over remaining parts of central India during 27-28<sup>th</sup> January. With further rise in temperature, they were above normal by 5-7°C over most parts of central India thereafter.
- They were below normal by 2-3°C over east India during 25-27<sup>th</sup> January, normal on 28<sup>th</sup> January and 2-3°C above normal during remaining days of the week outside Uttar Pradesh, Bihar and Sub-Himalayan West Bengal & Sikkim. They were above normal by 4-6°C over East Uttar Pradesh during 30-31<sup>st</sup> January and over Bihar and Sub-Himalayan West Bengal on 31<sup>st</sup> January.

## **RAINFALL DURING THE WEEK ENDING ON 31<sup>ST</sup> JANUARY, 2007.**

Rainfall was excess/normal in 2, deficient/scanty in 20 and no rain in 14 out of 36 meteorological sub-divisions (Actual: 0.8 mm, Normal: 6.4 mm and Departure: -87%).

## **CUMULATIVE SEASONAL RAINFALL (1<sup>ST</sup> JANUARY TO 31<sup>ST</sup> JANUARY, 2007)**

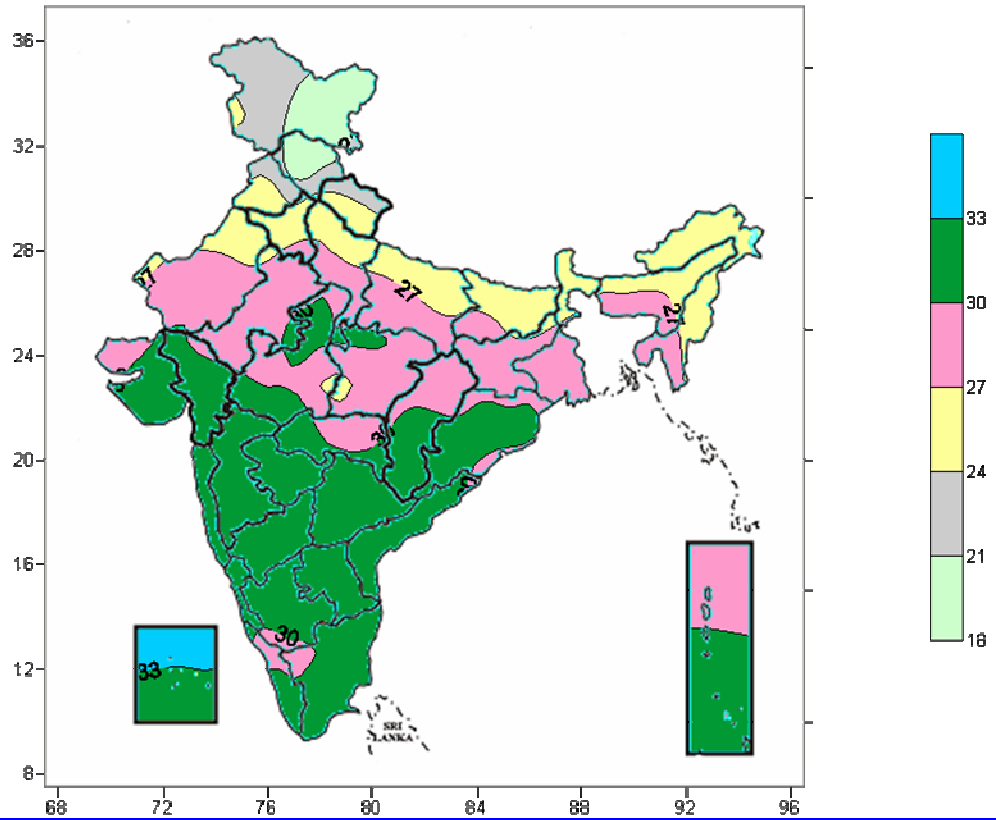
Rainfall was deficient/scanty in 26 and no rain in 10 out of 36 meteorological sub-divisions. (Actual: 1.6 mm, Normal: 20.8 mm and Departure: -92%).

## **OUTLOOK FOR THE WEEK ENDING ON 7<sup>TH</sup> FEBRUARY, 2007.**

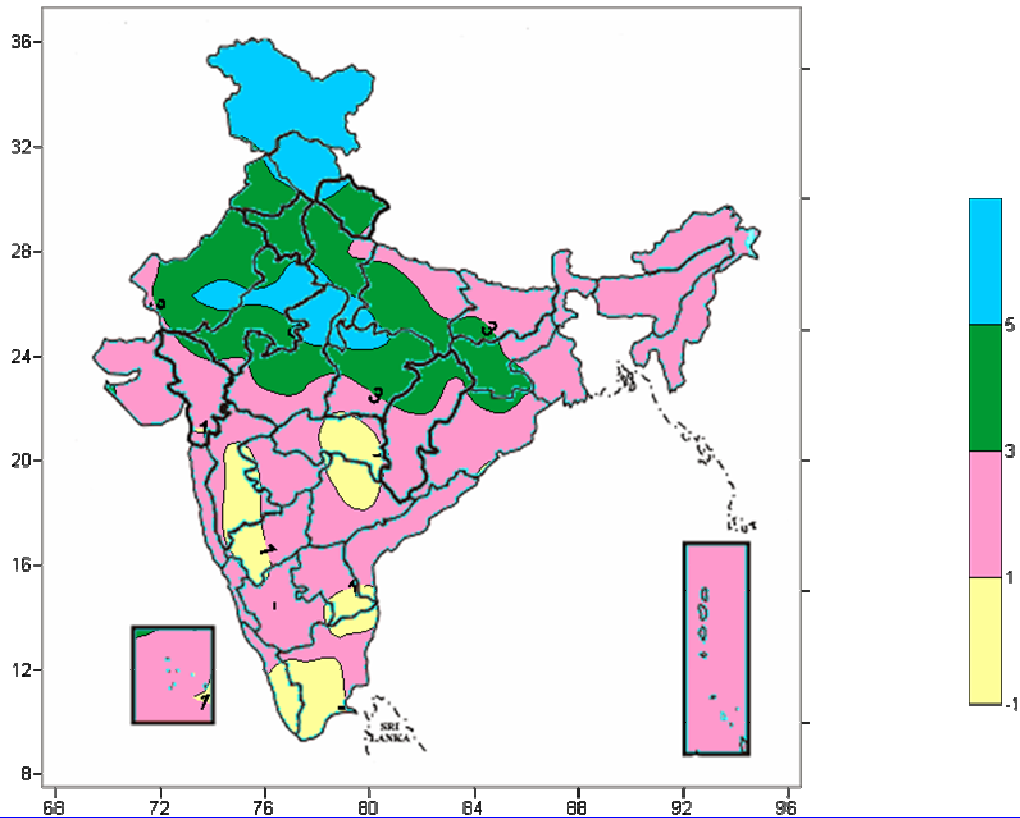
- Isolated rain/thundershower is likely over northeastern States during many days of the week.
- Isolated rain/thundershower is also likely over and West Bengal & Sikkim during second half of the week.
- A fresh western disturbance is also likely to affect Western Himalayan region during the middle of the week.

## Contour maps for the week ending 31<sup>st</sup> January, 2007

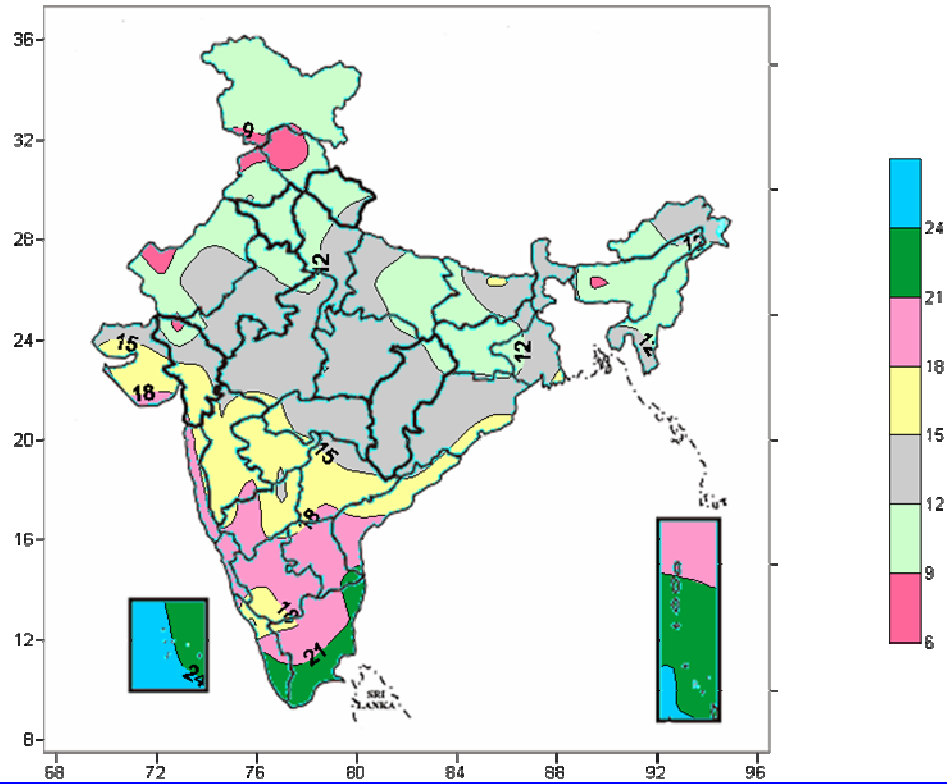
**Actual mean maximum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 31.01.07**



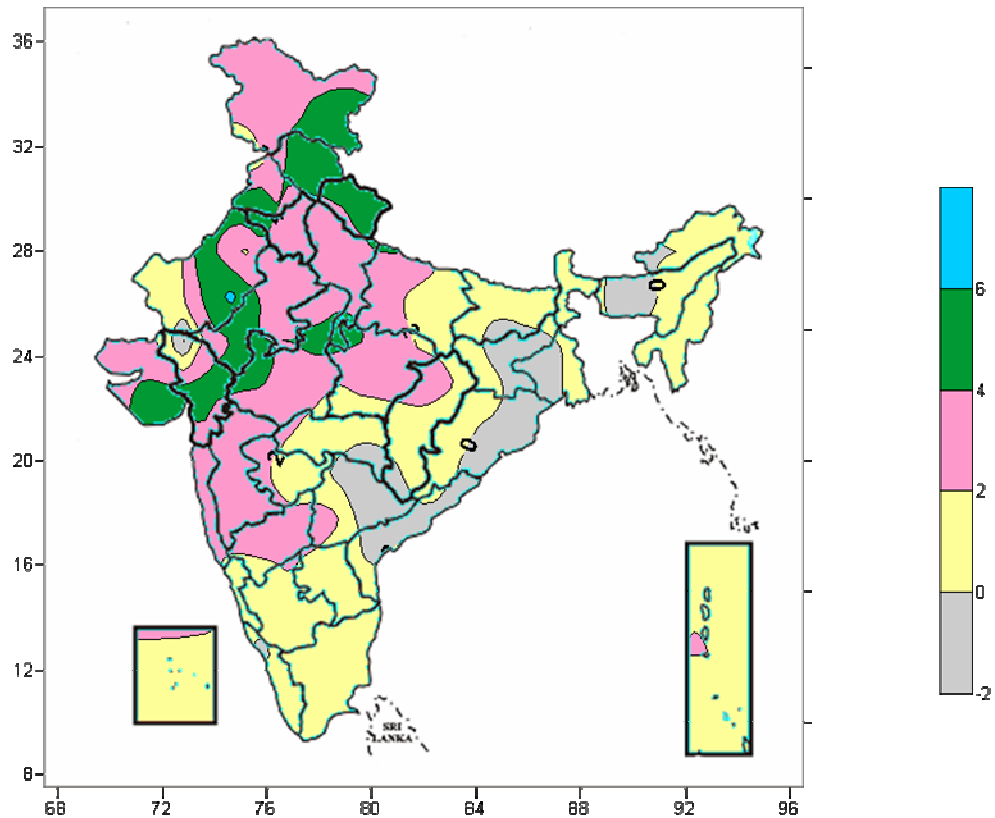
**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 31.01.07**



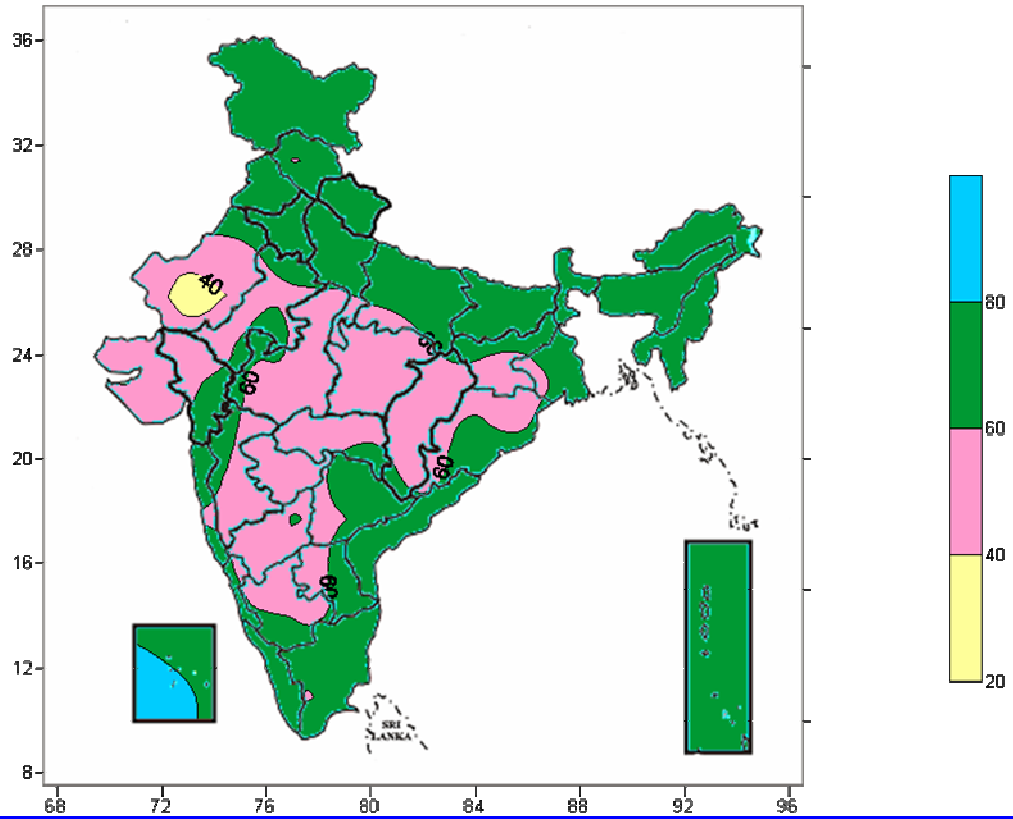
**Actual mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 31.01.07**



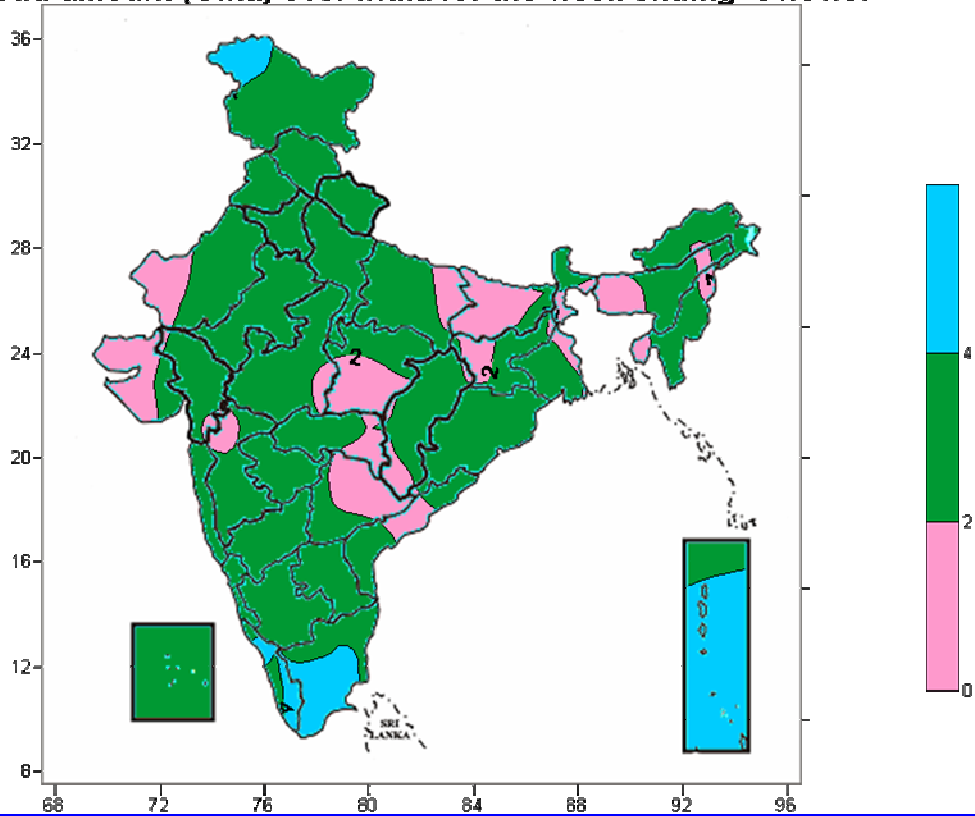
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 31.01.07**



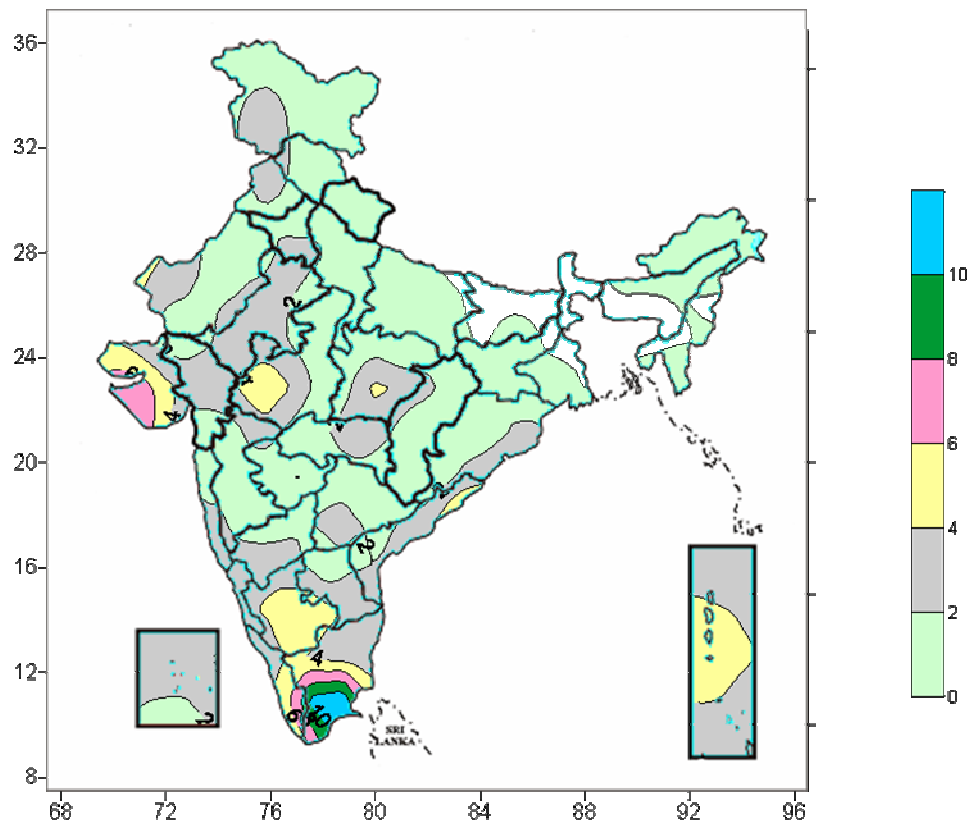
**Relative humidity (%) over India for the week ending 31.01.07**



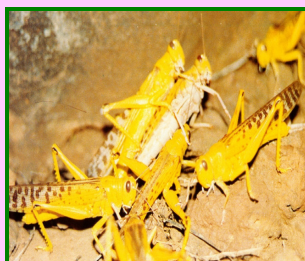
**Cloud amount (Okta) over India for the week ending 31.01.07**



**Wind speed (knots) over India for the week ending 31.01.07**



## Desert Locust Forecasting



Rainfall (mm)							
Station Name	25.1.07	26.1.07	27.1.07	28.1.07	29.1.07	30.1.07	31.1.07
Amritsar	NIL						
Barmer							
Sriganganagar							
Jaisalmer							
Kota							
Deesa							
Churu							

Temperature (degree celcius)							
Station Name	25.1.07	26.1.07	27.1.07	28.1.07	29.1.07	30.1.07	31.1.07
Amritsar	9.5	10.5	14.0	15.5	13.0	17.0	14.0
Barmer	20.0	21.0	-	20.5	20.5	21.0	21.5
Sriganganagar	16.5	17.5	17.5	18.0	17.5	17.0	18.0
Jaisalmer	19.0	19.0	17.5	18.5	18.5	17.5	18.5
Kota	17.5	18.5	21.5	22.5	23.5	22.0	23.0
Deesa	20.5	-	22.0	-	23.5	24.0	22.5
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	Vegetative / flowering

### 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>Radish, Turnip, Carrot</b>		
Nursery preparation	Vegetative/ Flowering	Sowing		

### Jammu & Kashmir

<b>Vegetable crops</b>	<b>Toria / Brown Sarson</b>	<b>Mustard</b>	<b>Gram</b>	<b>Wheat</b>
Vegetative	Seed development	Siliqua development	Pod development	Tillering
<b>Vegetable crops (Tomato, Onion and knoll-kholl)</b>	<b>Pea / Lentil</b>	<b>Orchards</b>		
Transplanting	Pod development	Plantation		

### 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>
Pod formation	Tillering/ Ear head formation	Flowering	Pod formation	Tillering/ Ear head 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	Active growth / matured tree	Vegetative
<b>Rabi Oilseeds( Rai and Mustard)</b>	<b>Toria</b>			
Vegetative / flowering	Harvesting			

### Uttarakhand

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

### Assam

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

### Arunachal Pradesh

<b>Mustard</b>	<b>Ginger</b>	<b>Potato</b>	<b>Wheat</b>	<b>Winter vegetables</b>
Flowering	Vegetative	Vegetative / earthing up / tuber formation	Tillering	Vegetative / flowering / fruiting / harvesting
<b>Early sown Potato</b>				
Harvesting				



<b>Bihar</b>				
<b>Summer Vegetables</b>	<b>Rabi vegetables</b>	<b>Wheat</b>		<b>Rabi Maize</b>
Sowing	Flowering / fruiting / harvesting	Tillering / flowering		Tasseling / Silking / cob formation
	<b>Boro Rice</b>	<b>Potato</b>	<b>Rabi Oil seeds (Toria, Sarson, Linseed)</b>	<b>Rabi Pulses (Lentil, Gram, Pea)</b>
	Transplanting	Tuber formation / tuber growth	Pod formation / early maturity	Pod formation / early maturity

<b>Jharkhand</b>				
<b>Rabi Maize</b>	<b>Wheat</b>	<b>Potato</b>		
Tasseling / silking	Tillering	Earthing up / 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>Rabi pulses and oilseeds (Arhar)</b>
Vegetative / flowering / fruiting	Sowing	Flowering		Pod formation

<b>Sikkim</b>				
<b>Orange</b>	<b>Mustard</b>	<b>Rabi vegetables</b>	<b>Wheat</b>	<b>Large Cardomom</b>
---	Siliquea formation	Fruiting /Harvesting	Tillering	Vegetative

<b>West Bengal</b>				
<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	Tillering / flowering	Pod formation / early maturity	Pod formation / early maturity
	<b>Potato</b>			
	Tuber formation / Tuber growth			

<b>Chattisgarh</b>				
<b>Gram / Mustard/Linseed</b>	<b>Vegetables (Tomato, chilli, brinjal)</b>	<b>Sugarcane</b>	<b>Wheat</b>	<b>Linseed, Safflower,</b>
Vegetative / Flowering	Vegetative /Flowering/Fruiting	Maturity/Harvesting	Tillering/Flowering	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	Planting	Sprouting/Early vegetative

<b>Gujarat</b>				
<b>Mustard</b>	<b>Wheat</b>	<b>Pre-monsoon irrigated Cotton</b>	<b>Castor</b>	<b>Sugarcane</b>
Flowering / pod formation	Tillering	Boll formation / picking	Flowering / Pod formation	Maturity / Harvesting
<b>Kharif Cotton</b>	<b>Summer Groundnut</b>	<b>Summer Rice</b>		
boll formation	Land preparation/sowing	Preparation of rice nursery/Transplantation		

<b>Maharashtra</b>				
<b>Sugarcane (Seasonal) (Madhya Maharashtra, Marthwada and Vidarbha)</b>	<b>Kharif cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Tur (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Irrigated Cotton</b>	<b>Rabi Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
cane maturity / harvesting	Boll maturity / picking	Pod maturity / harvesting	Boll maturity / picking	Flowering / grain formation/(grain maturity – in some parts of Pune Dist.)
<b>Safflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<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>
Head formation /(Head maturity- at some places)	Tillering /Flowering/Milk	Flowering / pod formation	Tasseling / Silking/cob initiation/cob formation	Head formation/(Seed maturity- at some places)

<b>Sugarcane Preseasonal</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<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)
Sprouting / early vegetative	Tuber formation/tuber growth	Bulb formation/bulb growth	Land preparation/sowing	Nursery preparation

**Madhya Pradesh**

<b>Irrigated Wheat</b>	<b>Mustard</b>	<b>Gram</b>	<b>Masoor</b>	<b>Linseed</b>
Flowering / Grain formation	Siliqua formation	Pod formation	Seed formation	Seed formation
<b>Wheat</b>				
Grain formation				

**Orissa**

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

**Andhra Pradesh**

<b>Rabi Groundnut</b>	<b>Rabi Maize</b>	<b>Gram</b>	<b>Rabi red gram</b>	<b>Rabi rice</b>
Flowering / pegging	Vegetative / tasselling / cob formation	Pod formation (Prakasam)/Pod Development (Telangana, Rayalaseema)	Pod formation	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	Grain development	Grain development/Grain maturity (Maize)	Early vegetative	Transplanting

**Kerala**

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

**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	Seed formation/Development	Vegetative	Sowing	Vegetative
<b>Sunflower</b>	<b>Pulses (Blach gram and Green gram)</b>	<b>Maize</b>	<b>Sugarcane (Early)</b>	<b>Thaladi Rice</b>
Vegetative	Flowering /Pod formation	Sowing	Planting	Raising nursery

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