



# Summary of Agromet Advisory Services for different States of the country

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(For the period 5<sup>th</sup> October to 9<sup>th</sup> October, 2006)

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 & Haryana**

### **Punjab**

Weather remained dry over the State.

Mainly dry weather is likely over the State.

#### **Advisories**

- Weather was dry in the State during last week and weather is likely to be mainly dry in the State for the next three days. Under the circumstances, apply required irrigation to **sugarcane** and **cotton** to bring the soil moisture to its field capacity.
- Conserve moisture wherever the crops are at maturity stage.
- **Cotton** crop is susceptible to the incidence of **bollworm** and other **leaf eating caterpillar**. Farmers are advised to apply integrated pest management with application of synthetic pyrethroid to check the same, if damage exceeds economic threshold level. Also undertake plant protection measures against **spotted boll worm** by spraying Quinalphos @ 1.5-2 litres/ha in 800 litres of water.
- Incidences of **shoot borer** and **Gurdaspur borer** are reported in **sugarcane**. Spray Nuvacran @ 1.5 litres of water to control the pests, if the pests population exceeds ETL.
- Farmers are advised to monitor the **locust** and carry out antilocus operations i.e. spray of pesticides on standing crops and vegetation.
- Undertake sowing of **berseem** along with javi and sarson by utilizing the residual moisture. Also conserve excess soil moisture to take up sowing of **rabi** crops.

### **Haryana**

Weather remained dry over the State

Mainly dry weather is likely over the State.

#### **Advisories**

- Weather was dry in the state during last week and dry weather is likely to prevail for the next three days. Under the circumstances, apply required irrigation to **horticultural crops**, **sugarcane** and **cotton** to bring the soil moisture to its field capacity.
- Conserve moisture wherever the crops are at maturity stage.
- Incidences of **boll worm** are reported in **cotton**. Spray Monocrotophos @ 1.5 litre/ha in 800 litres of water to control the pests, if the pests population exceeds ETL.
- Farmers are advised to monitor the **locust** and carry out **antilocus** operations i.e. spray of pesticides on standing crops and vegetation.
- Undertake sowing of **berseem** by utilizing the residual moisture. Also conserve excess soil moisture to take up sowing of **rabi** crops.

## Rajasthan

Light to moderate rainfall recorded at isolated places in Kota division. Weather remained mainly dry in rest divisions of the state.

Mainly dry weather is likely over the State.

### Advisories

- As all the standing crops in the state are now at maturity stage, conserve moisture in the soil.
- Start harvesting matured crops of **bajra, maize and pulses**.
- This is proper time for sowing **mustard**. Start land preparation and apply Gypsum @ 250 kg/ha before sowing.

## Uttar Pradesh

Rain occurred at isolated places in Varanasi division on 2<sup>nd</sup> October, in Varanasi and Jhansi divisions on 3<sup>rd</sup> October and in Allahabad, Lucknow and Jhansi divisions on 4<sup>th</sup> October. It was at a few places in Gorakhpur, Varanasi, Faizabad divisions on 4<sup>th</sup> October. Weather was mainly dry in remaining divisions of the State from 2<sup>nd</sup> to 4<sup>th</sup> October.

Weather will be mainly dry in the State.

### Advisories

- There was no significant rain in the State during last week and mainly dry weather is likely to prevail over the State for the next three days. Under the circumstance apply irrigation to bring the soil moisture to its field capacity.
- Continue weeding and hoeing, along with top dressing of nitrogen in **rice**
- Complete the sowing of **toria** using residual soil moisture.
- Monitor **sugarcane** for **borer** pests and to control **Agala borer** spray the solution of Endosulphon 35EC @ 1.25 litre / hectare in water if the population exceeds E.T.L.
- Monitor **pulse** crops for **leaf roller** attack. If the population crosses ETL, spray Endosulphan @ 1.5 litres/ha.
- To control **gummosis** disease in **mango** spray solution of Napthalene Acetic Acid 200 PPM and 4ml planofix in 9 litre in water.

## Himachal Pradesh

The weather was mainly dry during the week in the State.

Mainly dry weather is likely over the State.

### Advisories

- As there was no rain during last week and mainly dry weather is likely over the State for next three days, apply irrigation to **maize, moong, potato and early sown vegetable** crops to bring the soil moisture to field capacity.
- Conserve soil moisture wherever the crops are at maturity stage.
- Harvest the matured **rice, maize and apple** crops.
- Continue land preparation and sowing of **Arcle peas** in the high hills, sowing of **radish, turnip and carrot**, preparation of nursery of **cauliflower** and **cabbage** in lower hills and transplanting of **cauliflower and cabbage** in mid hills.
- Monitor the crop for attack of **citrus leaf minor**, if attack crosses economic threshold level, spray **Nuvan**

@ 1ml per litres of water and repeat spray if it persists.

## Uttaranchal

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

Mainly dry weather is likely over the State.

### Advisories

- Weather was dry in the state during last week and mainly dry weather is likely to prevail over the State for next 3 days. Under the circumstances, apply irrigation to **mango, apple, sugarcane** and **vegetable** crops to bring the soil moisture to its field capacity.
- Maintain 5 – 7 cm water in **rice** field.
- Carry out intercultural operation, application of fertilizer and plant protection measures to **mango, apple, sugarcane** and **rice** crops.
- Continue sowing **toria, pea** and **potato**.

## Jammu & Kashmir

Weather remained mainly dry over J & K state.

Weather is likely to be mainly dry in J & K state.

### Advisories

- Keep vigil against **desert locust** to prevent crop damage.
- Mainly dry weather prevailed during last week and dry weather is likely to prevail in J & K State for the next three days. Under the circumstances, apply required irrigation to **vegetables, pulses, rice** and **maize** to bring the soil moisture to its field capacity.
- Monitor **pulse** crops for **hairy caterpillar** and **jassid** due to prevailing weather conditions. If it crosses economic threshold level, spray Malathion @ 0.05% to control the pest.
- Continue sowing of **carrot, beet root** and **turnip** for seed crop in Jammu division. Undertake transplanting of **methi, palak, coriander, radish, cabbage** and **knol-khol** in Kashmir division.
- Continue sowing of **toria** crop in Jammu division and **brown sarson, lentil** and **wheat** in Kashmir division to utilize residual moisture. Before sowing, undertake ploughing followed by planking to conserve moisture.

## Delhi

Mainly dry weather is likely over the State.

Weather remained mainly dry on remaining days.

### Advisories

- As there was no rainfall during last week and mainly dry weather is likely over the State for next three days, apply irrigation to **early sown kharif vegetable crops, fodder crops, maize, arhar, mustard** and **bajra** to bring the soil moisture to its field capacity.
- Prepare land and continue transplanting of 4 – 6 weeks old early varieties of **cauliflower** and **cabbage** plants. Also undertake transplanting of **brinjal** and **chilly**.
- Also prepare nursery for **cabbage** varieties like Golden Acre, Pusa Ageti and mid time **cauliflower** varieties like Pusa Synthetic, Pusa Subhra and Pusa Himjyoti.
- Prepare land and perform sowing of Pusa Reshmi variety of **raddish**, Pusa Kesar variety of **carrot** and Pusa Kanchan variety of **turnip**.
- Prepare land and continue sowing of **toria, mustard, Berseem**.

- Monitor **ergot** disease of **bajra** and if noticed, remove the plants and burn them well outside the field.

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

### Kerala

Southwest monsoon was weak over the State on 3<sup>rd</sup> & 4<sup>th</sup> October. Rain occurred at a few places on 4<sup>th</sup> October and at isolated places on 3<sup>rd</sup> October.

Rain / thundershowers are likely at a few places over the State.

#### Advisories

- There was no significant rainfall during last week and rainfall is likely to occur at a few places in the State for the next three days. Under the circumstance, apply irrigation to plantation crops to bring the soil moisture to its field capacity.
- Continue intercultural operations and fertilizer application on a non rainy day in **arecanut, coconut, pepper, rubber** and **banana**.
- Attack of **leaf spot, bunchy top** and **pseudostem weevil** is reported in **banana**. Spray Bordeaux mixture @ 1% to control leaf spot. Eradicate the **bunchy top** affected plants and apply Phorate @ 25 g/pit before planting to prevent attack of **bunchy top** in new plants. Spray Chlorpyrifos @ 2.5 ml/litre of water to control **pseudo stem weevil**. Spraying of chemicals may be continued on a non rainy day.
- Attack of **rhinoceros beetle** and **red palm weevil** insects and **stem bleeding** disease is reported in **coconut**. Hook out the beetles from the affected palms and fill the leaf axils with Sevidol 8 G @ 25 gm and fine sand 200 gm. Use Pheromone trap for controlling **red palm weevil**. Cut stem bleeding affected region and paste with coal tar. Spraying of chemicals may be continued on a non rainy day.

### Tamilnadu

Rainfall occurred at isolated places over the State on 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> October.

Rain/ thundershowers are likely to occur at isolated places over the State.

#### Advisories

- There was no significant rainfall except in **Chennai, Dharmapuri, Nagappattinam, Namakkal, Perambalur, Salem, Pondicherry** and **Thanjavur** districts during last week and rain/ thundershowers is likely to occur at isolated places over the State for the next three days. Under the circumstances, apply required irrigation to **pulses, early/mid sugarcane** and **millets** to bring the soil moisture to its field capacity. Apply irrigation depending upon soil profile stored moisture in the above mentioned districts.
- Continue intercultural operations to keep the field weed free and application of fertilizers and pesticides to **early/mid sugarcane** and **kar rice**.
- Monitor **sugarcane** for **internode borer**. Release *Trichogramma chilonis* parasite @ 5 cc/ha to control the pest. Repeat after 15 days.
- Complete harvesting **late season sugarcane**. Continue picking matured **kapas** of **cotton**.

### Karnataka

Monsoon was active on all the days over Coastal Karnataka. Over North Interior Karnataka, it was weak on 2<sup>nd</sup> & 4<sup>th</sup> October. Over South Interior Karnataka, it was weak on all the days. Rainfall occurred at a few places on 2<sup>nd</sup> & 3<sup>rd</sup> and at isolated places on 4<sup>th</sup> October over North Interior Karnataka. Over South Interior Karnataka, rainfall occurred at isolated places on all the days.

Rain/thundershowers likely to occur at many places over Coastal Karnataka & at a few places over Interior Karnataka.

**Warning:** Isolated heavy rainfall likely over Coastal Karnataka.

## Advisories

- Postpone irrigation, intercultural operations and application of fertilizers in Coastal Karnataka as rain/thundershowers likely to occur at many places for the next three days.
- Arrange for drainage facilities as heavy rainfall is likely to occur at isolated places.
- There was no significant rainfall in Interior Karnataka during last week. Rain/thundershowers are likely at few places for the next three days. Under the circumstance, apply irrigation to **sugarcane, maize, jowar** and **groundnut** crops depending upon soil profile stored moisture.
- Weeding, application of fertilizers and pesticides and intercultural operations may be continued after spells of rain in coastal Karnataka and on a non rainy day in Interior Karnataka.
- **Woolly aphid** incidence is reported at **Mysore, Mandya, Hassan, Bidar & Bagalkote** districts. Release predators like *Dipha* sp after spells of rain in coastal Karnataka and on a non rainy day in Interior Karnataka to control the pest.
- Undertake inter-cropping with soyabean and pulses of short duration to reduce **woolly aphid** incidence.

## Andhra Pradesh

Rain occurred at a few places over Coastal Andhra Pradesh on 29<sup>th</sup> September over Rayalaseema on 2<sup>nd</sup> October and over Telangana on 1<sup>st</sup> October. Isolated rain occurred elsewhere over the state during the week except it was mainly dry and dry over Telangana on 4<sup>th</sup> October and 29<sup>th</sup> September respectively.

Isolated rain or thundershowers are likely over the State.

## Advisories

- There was no significant rainfall in the state except in **Srikakulam** district in coastal Andhra Pradesh and in **Adilabad** and **Nizamabad** districts in Telangana and rain/ thundershowers likely to occur at isolated places over the State. Under the circumstances, apply irrigation to **maize, groundnut, cotton, chilly** and **tur** to bring the soil moisture to its field capacity. Apply irrigation depending upon soil profile stored moisture in the above mentioned districts as there was excess rainfall during last week.
- Continue intercultural operations, application of fertilizers and pesticides in the standing crops in the State.
- Attack of **sucking pests** is noticed in **cotton**. Monitor the crop continuously and if damage exceeds economic threshold level, spray Acephate @ 1.5 g/litre of water or Monocrotophos @ 1.6 ml/ litre of water to control the pest.
- Attack of **blast** is reported in **rice**. Spray Tricyclozole @ 0.6 g/litre of water or Ediphenphos @ 1 ml/litre of water to control the disease.

## Eastern Region (Assam, Bihar, Sikkim, West Bengal)

### Assam

Light to moderate rain occurred at a few places on 2<sup>nd</sup> & 3<sup>rd</sup> October and at isolated places on 4<sup>th</sup> October with isolated heavy falls on 2<sup>nd</sup> & 3<sup>rd</sup> October over the State. Sky was generally Cloudy.

Rain / thundershowers are likely at many places over the State. Decrease in rainfall activity after 2 days.

**Warning:** Isolated heavy to very heavy falls are likely over the State.

## Advisories

- As rain / thundershowers are likely at many places with isolated heavy to very heavy rainfall over the State for next three days; postpone irrigation to **Sugarcane, arhar, black gram, green gram** and **Sali rice**. Arrange drainage facilities in the standing crops.
- Maintain 3 – 5 cm water level in **Sali rice** field.

- Apply plant protection measures to *sali rice* when one adult of *rice hispa* per hill or one leaf is found damaged by *hispa*. Apply Monocrotophos 40 EC @ 1.5 ml per litre of water or Chloropyriphos 20 EC @ 2 ml per litre of water to control the insect. If attack of *Stem borer* is noticed apply Monocrotophos 40 EC @ 1.5 ml per litre of water. Spraying may be continued after current spells of rain under the prevailing weather conditions.
- Land preparation and sowing of *early winter vegetables* may be continued after current spells of rain.

### West Bengal

The South West Monsoon was active over the districts of Sub Himalayan West Bengal during the period and weak over the districts of Gangetic West Bengal during the period 2<sup>nd</sup> to 4<sup>th</sup> October. During the period rain occurred at isolated places on 2<sup>nd</sup> October, heavy rain at isolated places along with most places on 3<sup>rd</sup> and 4<sup>th</sup> October over the districts of SHWB. But during rain occurred at isolated places during the period 2<sup>nd</sup> to 4<sup>th</sup> October over the districts of GWB.

Rain / thunder showers will occur at a few places over the State.

### Advisories

- As there was no significant rainfall in the State except in *Coochbehar, Darjeeling, and Jalpaiguri* districts during last week and rain / thundershowers are likely at a few places over the State for the next three days, apply irrigation to bring the soil moisture to its field capacity in *sugarcane, green gram and groundnut*. Apply irrigation depending on the soil profile stored moisture in the above mentioned districts as excess/normal rainfall is received during last week.
- In *aman rice* apply 2<sup>nd</sup> top dressing of nitrogenous fertilizer @ 25 kg / ha for high yielding varieties and 20 kg / ha for medium duration varieties at 40 – 45 days after transplanting and 20 kg / ha for long duration varieties at 60 – 65 days after transplanting. Water may be drained out before the application of fertilizer and 3 – 5 cm water may be maintained in the field after 2 – 3 days. Application of fertilizers may be continued on a non rainy day.
- Continue intercultural operation and application of fertilizer and plant protection measures to the crops on a non rainy day.
- Field preparation and sowing of *lentil and gram* may be done.

### Bihar

Rain occurred at a few places on 30<sup>th</sup> September. Rest of the days rain occurred at isolated places.

Rain/ thundershowers likely to occur at isolated places over the State.

### Advisories

- There was no significant rainfall in the State except *Purnea* district during last week and rain/thundershowers are likely at isolated places for next three days. Under the circumstances, apply required irrigation depending on the soil profile stored moisture to *vegetables, maize, pulses, and oilseed* crops.
- Weeding and intercultural operations may done in rice and apply 25-30 kg/ha Nitrogen as top dressing.
- Start field preparation and sowing of *rabi* crops with available residual moisture.

### Jharkhand

Rain / thunder showers occurred at a few places.

Rain/thundershowers are likely at isolated places over the State.

### Advisories

- There was no significant rainfall except *Girioih* district during last week in the State and rain / thundershowers are likely at isolated places for next three days, apply required irrigation depending on soil profile stored moisture to *vegetables, maize, and other* crops.

- Also, continue intercultural operation, application of fertilizer and plant protection measures.
- Continue weeding and top dressing in **rice**.
- Maintain 3-5cm of standing water in the **rice** field.
- Continue field preparation, sowing/transplanting of tomato, cabbage, cauliflower, brinjal, chilli, potato and pea.

## **Sikkim**

Sky remained generally cloudy during the period. Light to moderate rain occurred at many places on 30<sup>th</sup> September, 1<sup>st</sup>, 2<sup>nd</sup> & 4<sup>th</sup> October. Very light rain occurred at a few places on 3<sup>rd</sup> over East Sikkim. No rain occurred on 28<sup>th</sup> & 29<sup>th</sup> September over East Sikkim. Rainfall was deficient during the period.

Rain / thundershowers are likely at a few places over the State.

### **Advisories**

- As there was no significant rainfall in the state during last week and rain / thunder showers are likely to occur at few places over the State for next three days, apply required irrigation to **orange, large cardamom** and **ginger** to bring the soil moisture to its field capacity.
- Continue intercultural operations, application of fertilizers and pesticides in **orange, vegetables** and **ginger** on a non rainy day.
- If **caterpillar** infestation is seen in **large cardamom**, it may be handpicked and destroyed. Rouging of **Chirkey** and **foorkey** affected plants may be done at regular intervals and destroyed by burning.
- Maintain water level of 3-4 cm in **rice** field.
- Monitor **orange** for **trunk borer** and plug the holes in case of damage. Also monitor orange for fruit fly. Keep bait made of 20 ml Malathion and 200 g molasses or gur in 2 litres of water on a non rainy day to control fruit fly and prevent fruit drop.

## **Arunachal Pradesh**

Sky remained mainly cloudy over the State during the period. Rain / thundershower occurred at many places on 4<sup>th</sup> October, at a few places on 3<sup>rd</sup> October and at one or two places on 2<sup>nd</sup> October.

Rain / thundershower are likely to occur at many places over the State. Decrease in rainfall activity after 2 days.

**Warning:** Isolated heavy to very heavy falls are likely over the State.

### **Advisories**

- Rain / thundershowers are likely to occur at many places in the State for the next three days. Under these conditions, postpone irrigation to new crop of **ginger**. Arrange adequate drainage facilities.
- Drain out the water 15 days before harvesting in **wet seeded rice** field and start harvesting of matured crop.
- Field preparation and sowing of winter vegetables, potato, wheat and mustard may be continued after current spells of rain.

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

### **Gujarat**

Rainfall occurred at a few places over Gujarat region, Daman, DNH on 2<sup>nd</sup> October. Rainfall occurred at isolated places over Gujarat region, Daman, DNH on 3<sup>rd</sup> and 4<sup>th</sup> October.

Rain / thundershowers are likely at isolated places over south Gujarat region and mainly dry over the rest region.

## Advisories

- As there was no significant rain in the State except Kheda and Sabarkantha districts during last week and isolated rain / thundershower over south Gujarat region and mainly dry weather is likely north Gujarat region and Saurashtra & Kutch region for next three days, apply irrigation to sugarcane, *Kharif groundnut*, *Kharif bajra*, *Kharif maize*, pre-monsoon irrigated cotton, *Kharif cotton* and castor to bring the soil moisture to field capacity. Apply irrigation depending on the soil profile stored moisture in the above mentioned districts.
- Maintain 3 – 5 cm water in rice fields.
- There is possibility of attack of stem borer in *kharif rice*. Monitor the crop for stem borer and if crosses economic threshold level, apply carbofuran 3 % @ 25 kg / ha or cartap hydrochloride 4% @ 20 kg / ha for the control of the insect. To control the sucking pest spray Monocrotophous 12 ml or DDVP 5 ml or trizophous 10 ml in 10 liter of water.
- At tillering stage give supplementary dose of Nitrogen 32 Kg for early varieties, 40 Kg for medium and 48 Kg/ha for late ripening varieties.
- If population of sucking pests like aphid, jassids, thrips & *Heliiothis* of cotton crosses economic threshold level, release chrysoperla eggs or first in star larvae @ 10000 / ha twice at the interval of 15 days.
- For monitoring & management of boll worms & *Heliiothis* of cotton hang 5 pheromance traps in one ha. Change the lures at an interval of 15 days. Destroy trapped moths every day. If boll worm population crosses economic threshold level, release parasite tricogamma @ 1.5 lakhs / ha 5 to 6 times as per requirement depending upon infestation found in field.
- If white fly population crosses economic threshold level in cotton, spray Neem oil @ 4 liter / ha. For control of top shoot borer of cotton spray Endosulphan 35 EC @ 2 liter / ha if population crosses economic threshold level.
- Continue intercultural operation and application of fertilizer and plant protection measures to the crops under prevailing weather condition.

## Chhattisgarh

Rain occurred at isolated places on 2<sup>nd</sup> October in Bastar div., on 3<sup>rd</sup> October in Bilaspur, Raipur div. and on 4<sup>th</sup> October in Bilaspur and Bastar division. Weather was mainly dry from 2<sup>nd</sup> to 4<sup>th</sup> October in remaining divisions.

Mainly dry weather is likely over the State.

## Advisories

- As there was no significant rainfall in the State except Bastar, Dhamtari, and Kanker districts during last week and mainly dry weather is likely over the State for next three days, apply irrigation to bring the soil to field capacity to Sugarcane, green gram, black gram, red gram, soybean, groundnut and vegetables. Apply irrigation depending on soil profile stored moisture in the above mentioned districts.
- Drain out water from the rice field and apply second split dose of N @ 25 – 30 kg / ha at 45 – 50 days after transplanting as top dressing. Maintain 3 – 5 cm water in the field after 2 – 3 days of fertilizer application.
- Continue preparation of nursery for vegetables like tomato, chilly, brinjal etc. on the bed of 6-8 inch height.
- Continue sowing of Niger seed and *Kulthi* in Bastar division. For *Kulthi* prefer variety like A.K. 21, Marukulthi, B.K. 1 and for Niger seed I.G.P. 76, G.A.10, J.N.C. 6, B.N. 1.
- Monitor the crop for the attack of stem borer and gall midge in rice. Monitor the crops and if crosses economic threshold level, thimet 10 G @ 10 kg / ha or carbofuran 3 G @ 25 kg / ha may be applied.
- Monitor the crop for the attack of leaf eating or leaf curl insects in pulses. Monitor the crops and if



crosses economic threshold level, Endosulphon 35 EC @ 1000 ml or Quinalphos or Methyl demeton 25 EC @ 800 ml / ha may be applied.

## Maharashtra

Monsoon was vigorous in Konkan on 2<sup>nd</sup> October. Rainfall occurred at most places in Konkan & North Madhya Maharashtra, at a few places in South Madhya Maharashtra, Marathwada and at isolated places in Vidarbha.

Rain / thundershowers are likely at many places over Konkan & Goa; at a few places over south Madhya Maharashtra and isolated over north Madhya Maharashtra, Marathawada and mainly dry weather is likely over Vidarbha.

**Warning:** Isolated heavy rainfall likely over South Konkan & Goa.

## Advisories

- As rain/thundershowers are likely at many places over Konkan & Goa, postpone irrigation to **Sugarcane, Jowar, kharif groundnut, bajra, soybean, sunflower, kharif cotton, tur, moong and cotton (irrigated)** crops. Arrange drainage facilities in south Konkan & Goa.
- There was no significant rainfall in **Ahmednagar, Nasik, Pune, Sangli, Satara, Sholapur, Beed, Nanded, Usmanabad, Parbhani, Chandrapur, Gondia, Nagpur, and Washim** districts during last week and rain / thundershowers are likely at a few places over south Madhya Maharashtra and isolated over north Madhya Maharashtra, Marathawada and mainly dry weather is likely over Vidarbha. Under these conditions, apply irrigation to bring the soil moisture to its field capacity to **sugarcane, jowar, kharif groundnut, bajra, soybean, sunflower, kharif cotton, tur, moong and cotton (irrigated)** crops in the above mentioned districts. Apply irrigation depending on the soil profile stored moisture in the remaining districts as excess/normal rainfall is received during last week.
- Mild incidence of **White Woolly Aphids** in **Aurangabad, Latur, Kohlapur and Pune** and **Pyrilla, White fly and Mealy bug** in **Nashik** in **sugarcane**, **Stem borer** in **Raigad**, **Army worm, Leaf roller, Blue beetle and Hispa** in **Konkan and Goa**, **Raigad and Sindhudurga** and **Aphids and Army worm** in **Sangli district & Blight and blast** in **Nagpur division** in **Kharif rice**, **Stem borer, aphids and jassids** in **Satara and Sangli dist. & shoot fly** in **Amraoti div.** in **jowar**, **Leaf eating cater pillar, Rust, Leaf roller** in **Kolhapur** in **Groundnut**, **Leaf eating cater pillar** in **Kolhapur, Latur and Amraoti div. and Wardha dist** and **White fly, Jassids & Thrips** in **Nashik division** in **soybean**, **Leaf cater pillar and sap sucking insects** in **Latur division** in **sunflower**, **Aphids & Jassids** in **Aurangabad & Chandrapur and Vidarbha div. and Root rot** in **Nashik** in **irrigated cotton** and **Aphids and Jassids** in **Aurangabad and Vidarbha division** in **kharif cotton**, **leaf roller** in **Amravati division** in **tur** and **White fly, Jassids & Thrips** in **Nashik & Sap sucking insects, Leaf cater pillar** in **Latur division** in **moong** is reported.
- For the control of **White Woolly Aphids** in **sugarcane**, release 2500 eggs or larvae of *Krisoperla Karnea* or *Konobatra Aphidivora* parasite on the leaves or spray Endosulphan 1 ml plus Metasistox 1 ml mixed in 1 liter water.
- Monitor the **stem borer** population in **rice** and if crosses economic threshold level, use phorate 10G @ 10 kg or Quinalphos 5G @ 15 kg / ha.
- Monitor the **army worm** population in **rice** and if crosses economic threshold level, spray 25 % Cypermethrin @ 120 ml or 36 % Monocrotophos @ 700 ml / ha in 500 liter water.
- Monitor the **blast disease** in **rice** and if crosses economic threshold level, Blitox 50 (Copper oxychloride) @ 2.25 kg or Bavistin 50 WP @ 750 g or Hinosan @ 750 ml in 750 litre water / ha may be applied.
- Monitor the **stem borer, aphids and jassids** population in **jowar** and if crosses economic threshold level, spray 5 % Neem seed extract or 35 % Endosulphon @ 14 ml or 30 % Dimethoate @ 10 ml plus 10 ml sticker in 10 liter water. Monitor the **leaf roller** population in **groundnut** and if crosses economic threshold level, spray 36% WSC Monocrotophos @ 700 ml or 25% WSC Quinolphos @ 1000 ml / ha in 500 liter water.
- Spraying may be continued in north Madhya Maharashtra, Marathawada and Vidarbha and on a non-rainy day in south Madhya Maharashtra and after current spells of rain in Konkan & Goa.

- Field preparation and sowing of **rabi maize, sunflower, safflower, wheat, gram and jowar** may be started in Madhya Maharashtra, Marathwada and Vidarbha.

### **Madhya Pradesh**

South West Monsoon has withdrawn from NorthWest M.P. and parts of South West and North East M.P. on 4<sup>th</sup>. Rainfall occurred at isolated places in West M.P. on 2<sup>nd</sup> October, NorthWest M.P. on 3<sup>rd</sup> October and North M.P. on 4<sup>th</sup> October. Dry weather prevailed over the state for remaining period.

Mainly dry weather is likely over the State.

#### **Advisories**

- There was no significant rainfall except **Khargone** and **Jhabua** districts and mainly dry weather is likely over the State for the next three days. Under the circumstance, apply irrigation to **sugarcane, moong, kharif soybean, jowar, urad, tur, cotton** and **maize** crops to bring the soil moisture to field capacity. Apply irrigation depending on the soil profile stored moisture in the above mentioned districts. Conserve moisture wherever the crops are at maturity stage.
- Maintain 3-5 cm water level in **kharif rice** field.
- To protect **rice** crop from **Blast** disease spray Mancozeb 1kg per hectare.
- Conserve moisture wherever the **kharif** crops are at maturity stage.

### **Orissa**

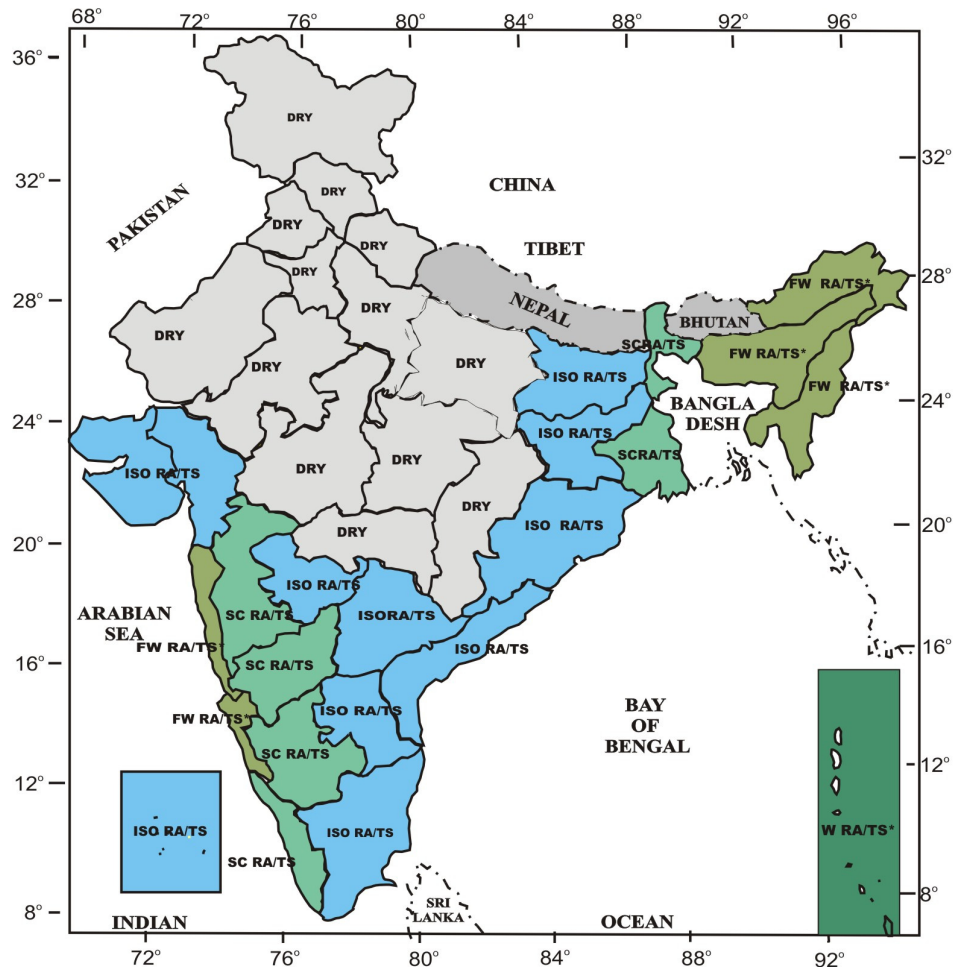
Rain fall occurred at isolated places over the State during the period.

Rain / thundershowers are likely to occur at isolated places over the State.

#### **Advisories**

- There was excess/normal rain during last week except in **Angul, Balasore, Bargarh, Deogarh, Jharsuguda, Kendrapara, Malkangiri, Nawapara, Sambalpur, Sonepur** and **Sundargarh** districts and rain or thundershowers are likely to occur at isolated places over the State for next 3 days. Under the circumstances, apply irrigation depending on soil profile stored moisture in **vegetables, sugarcane, ground nut, pulses** and **jute** crops. Apply irrigation to bring the soil moisture to field capacity in the above mentioned districts.
- Maintain 3 – 5 cm water in the **rice** field wherever crops are at tillering stage.
- At five months stage of **sugarcane** crop perform propping by combining plants of two rows so that the crops do not lodge by wind.
- Field preparation and sowing of **rabi groundnut** may be done.

## Forecast valid upto 8<sup>th</sup> October, 2006



## *Salient weather features for the week ending 04/10/06*

### WITHDRAWAL OF SOUTHWEST MONSOON

The southwest monsoon further withdrew on 3<sup>rd</sup> October from remaining parts of West Uttar Pradesh & Rajasthan, many parts of East Uttar Pradesh, West Madhya Pradesh & north Gujarat and some parts of Bihar & East Madhya Pradesh. The withdrawal line passed through Raxaul, Allahabad, Bhopal, Vallabha Vidyanagar and Porbandar.

### METEOROLOGICAL ANALYSIS

- Last week's low pressure area over east central and adjoining northeast Bay of Bengal persisted and became well marked on 28<sup>th</sup> September morning. It concentrated into a depression in the same evening. Moving west-northwestwards, it lay centred at 0830 hours IST of 29<sup>th</sup> over northwest Bay of Bengal, about 125 Km east-southeast of Gopalpur. Moving further westwards, it crossed Orissa coast near Gopalpur around 1730 hours IST of 29<sup>th</sup>. It weakened into a well marked low pressure area and lay over south Chhattisgarh and neighbourhood on 30<sup>th</sup> morning. It lay as a low pressure area over Vidarbha and neighbourhood on 1<sup>st</sup> October morning and became less marked on 2<sup>nd</sup>. However the associated cyclonic circulation extending upto mid-tropospheric level persisted over same area on 2<sup>nd</sup>; over Madhya Maharashtra and neighbourhood on 3<sup>rd</sup> and over south Konkan & Goa and neighbourhood on 4<sup>th</sup>.

- Last week's low pressure area over northeast & adjoining east-central Arabian Sea moved westwards and became less marked on 28<sup>th</sup>.
- An off shore trough on sea level ran from Konkan coast to Kerala coast during last two days of the week.
- A north-south trough extending upto lower tropospheric level ran from Bihar to northwest Bay of Bengal across Jharkhand and north Orissa on last day of the week.

### **RAINFALL**

Under the influence of the above systems:

- The monsoon was active with isolated heavy to very heavy falls over Orissa during 29-30<sup>th</sup>. Fairly widespread rainfall with isolated heavy falls also occurred over Orissa on 1<sup>st</sup> & 4<sup>th</sup> Oct and over Gangetic West Bengal and Jharkhand during 30<sup>th</sup> Sep to 1<sup>st</sup> Oct and on 4<sup>th</sup> Oct.
- The monsoon was active with isolated heavy to very heavy falls over Chhattisgarh on 30<sup>th</sup> Sep. Fairly widespread rainfall with isolated heavy falls also occurred over Vidarbha on 1<sup>st</sup> Oct.
- The monsoon was active with isolated heavy to very heavy falls over Konkan & Goa on 2<sup>nd</sup> Oct. Fairly widespread rainfall with isolated heavy falls occurred over Konkan & Goa on 1<sup>st</sup>, 3<sup>rd</sup> & 4<sup>th</sup>, over Marathwada on 1<sup>st</sup> and over Madhya Maharashtra on 2<sup>nd</sup>.
- The monsoon was active with isolated heavy to very heavy falls over Coastal Karnataka on 30<sup>th</sup>. Fairly widespread rainfall with isolated heavy falls occurred over Coastal Karnataka and Andaman & Nicobar Islands during many days of the week and over North Interior Karnataka during 1-2 Oct.
- Scattered to fairly widespread rainfall with isolated heavy falls occurred over northeastern states during the week.
- Rainfall was isolated or mainly dry weather prevailed over northwest India while scattered/isolated rainfall activity occurred over remaining parts of west, central & peninsular India during the week.

### **RAINFALL DURING THE WEEK ENDING ON 4<sup>TH</sup> OCTOBER, 2006**

Rainfall was excess/normal in 9, deficient/scanty in 22 and there was no rain in 5 out of 36 meteorological sub-divisions (Actual: 18.3 mm, Normal: 28.9 mm and Departure: -37%).

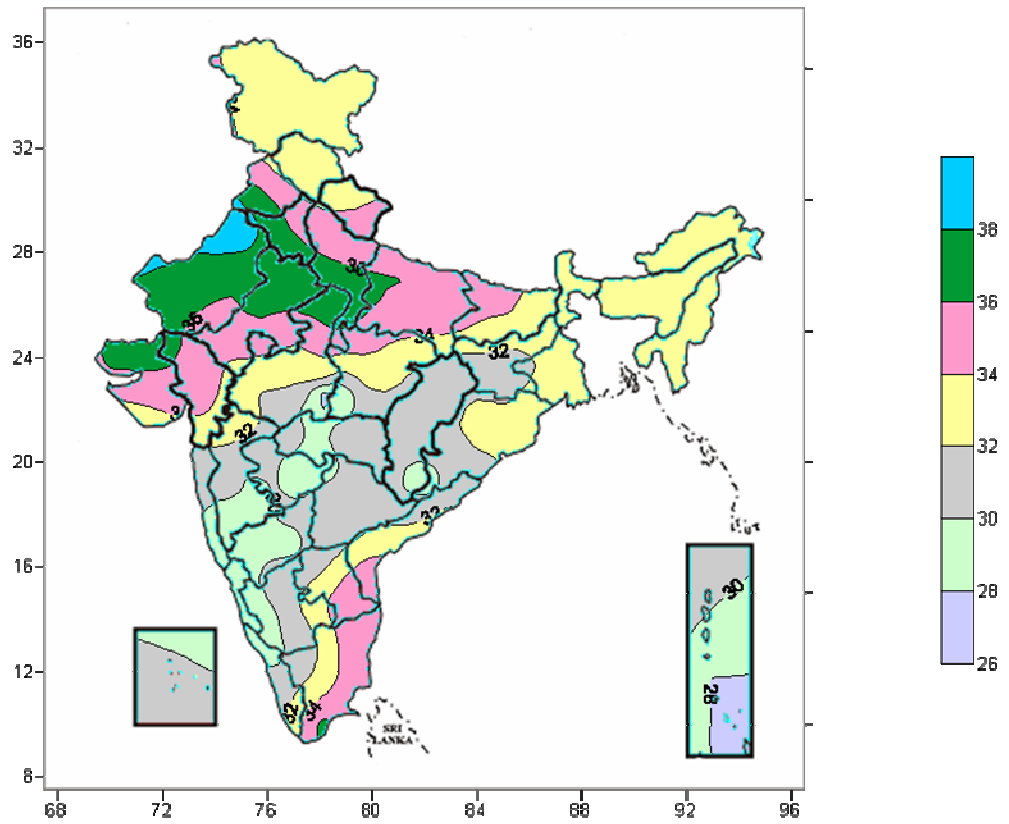
### **CUMULATIVE SEASONAL RAINFALL (1<sup>ST</sup> JUNE TO 30<sup>TH</sup> SEPTEMBER, 2006)**

Rainfall was excess/normal in 26 and deficient in 10 out of 36 meteorological sub-divisions. (Actual: 886.6 mm, Normal: 892.2 mm and Departure: -1%).

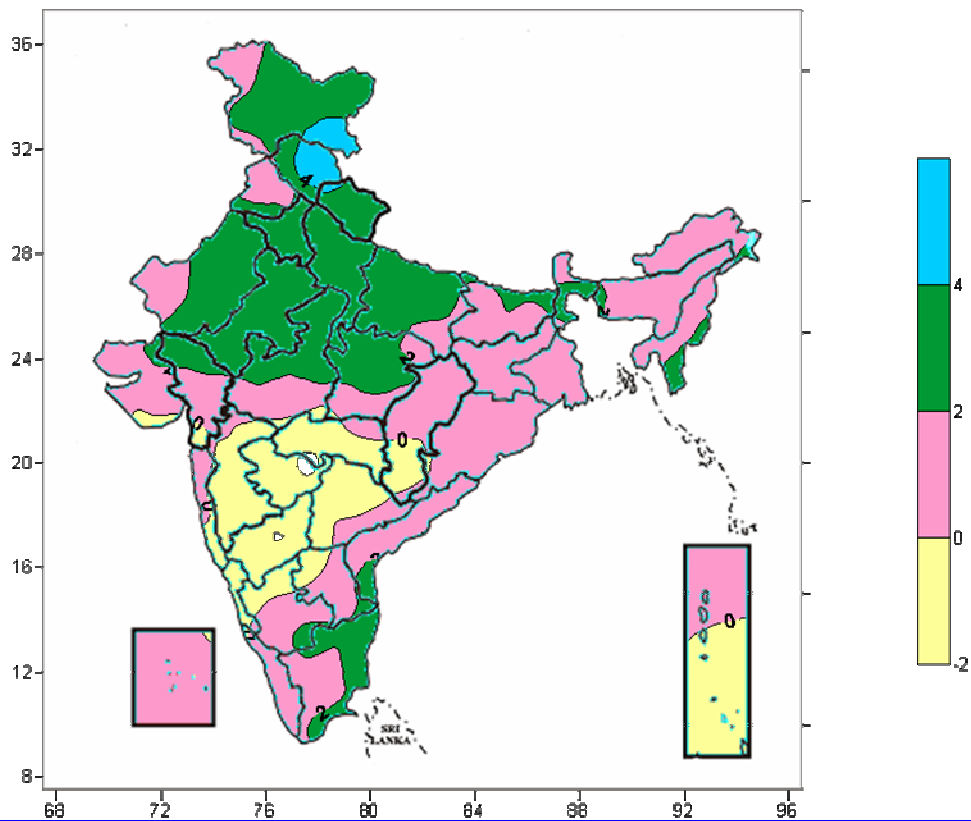
### **OUTLOOK FOR THE WEEK ENDING ON 11<sup>TH</sup> OCTOBER, 2006.**

- Conditions are favourable for further withdrawal of monsoon from some more parts of central, east and west India.
- Increase in rainfall activity over southeast peninsula.
- Scattered to fairly widespread rainfall activity is likely to continue over northeastern states.

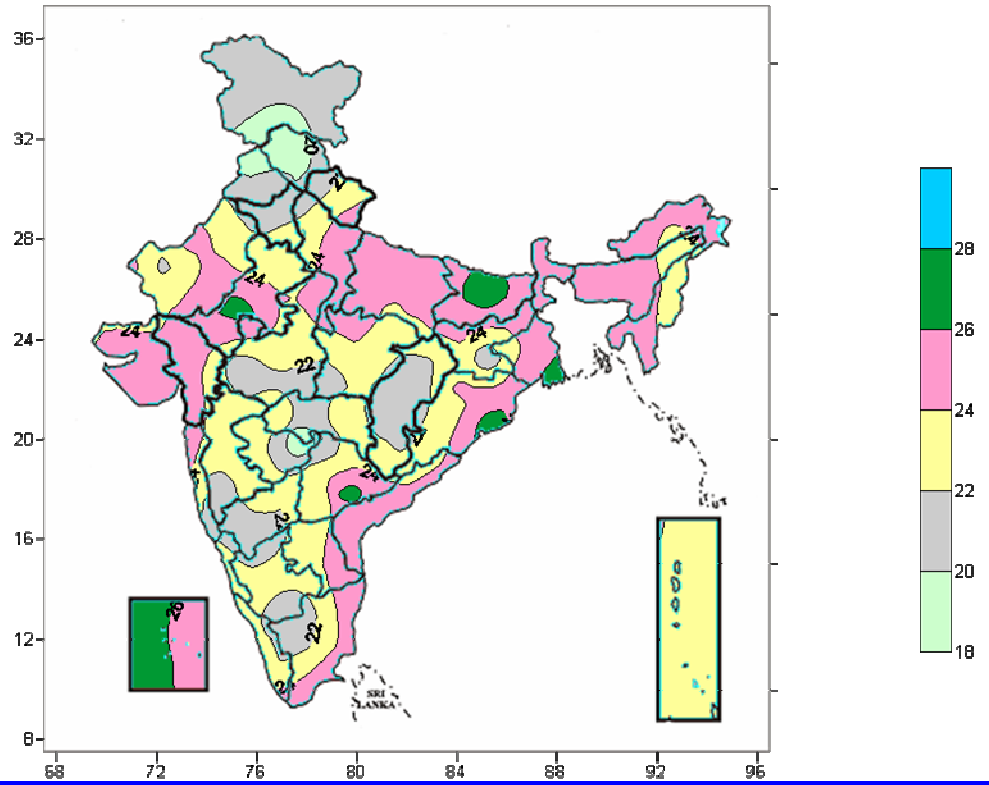
**Actual mean maximum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 04.10.06**



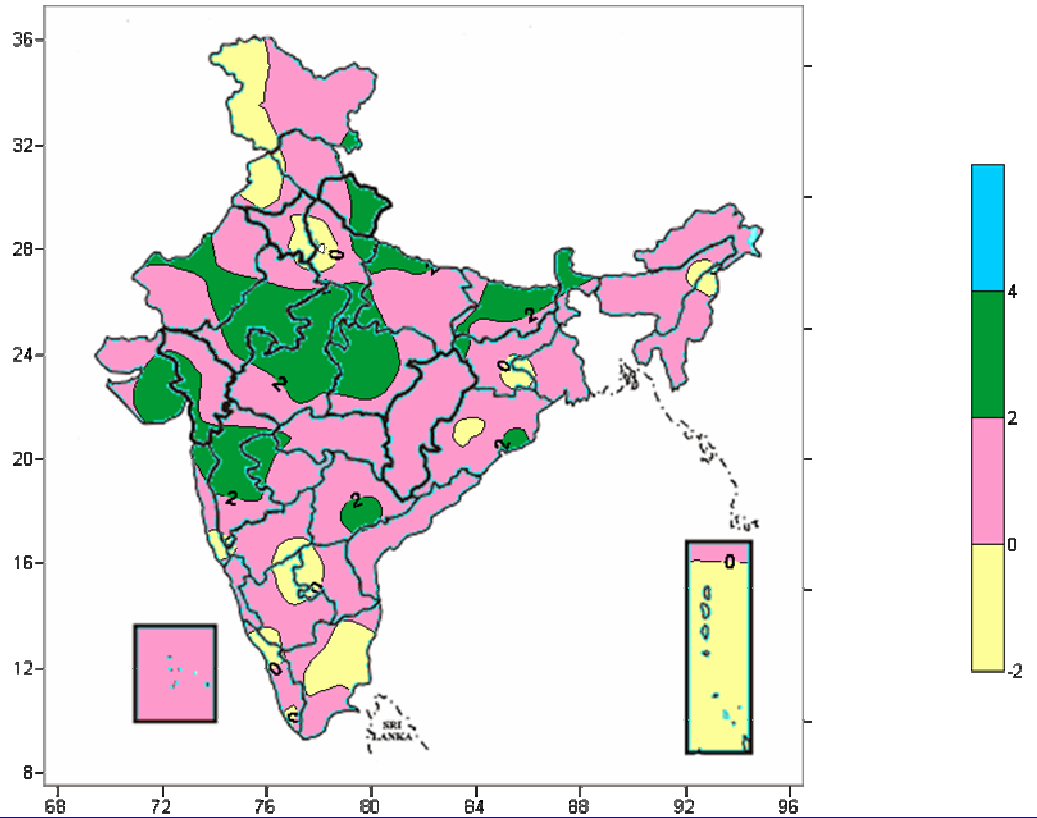
**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 04.10.06**



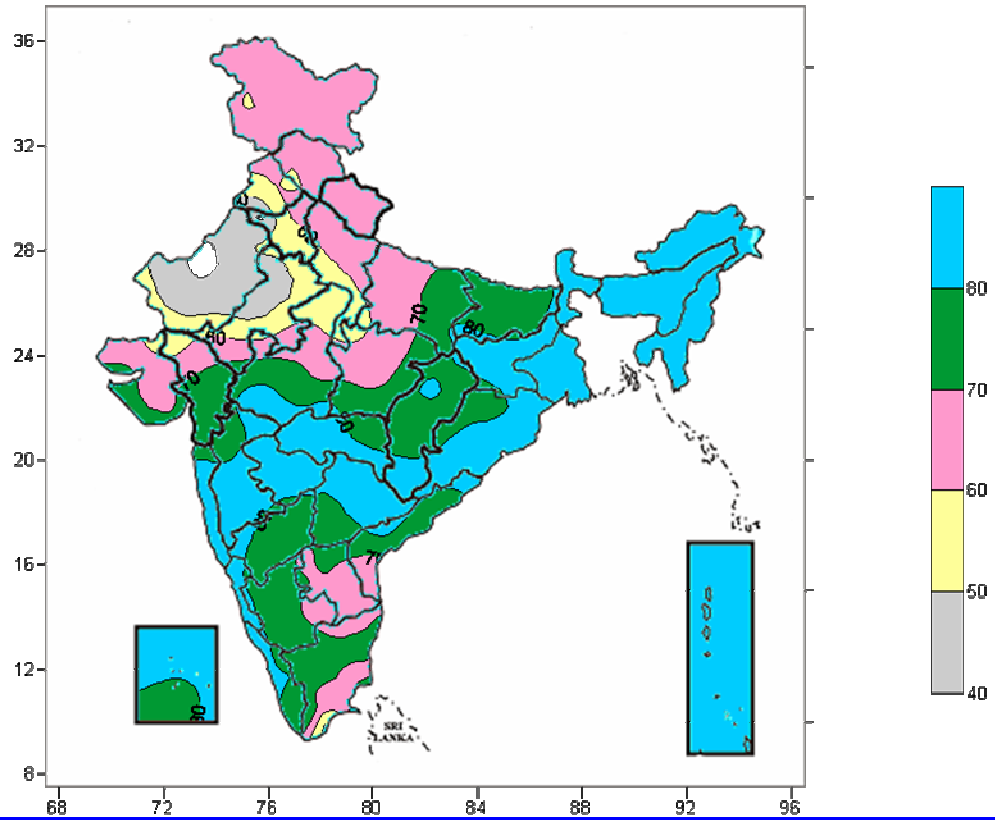
**Actual mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 04.10.06**



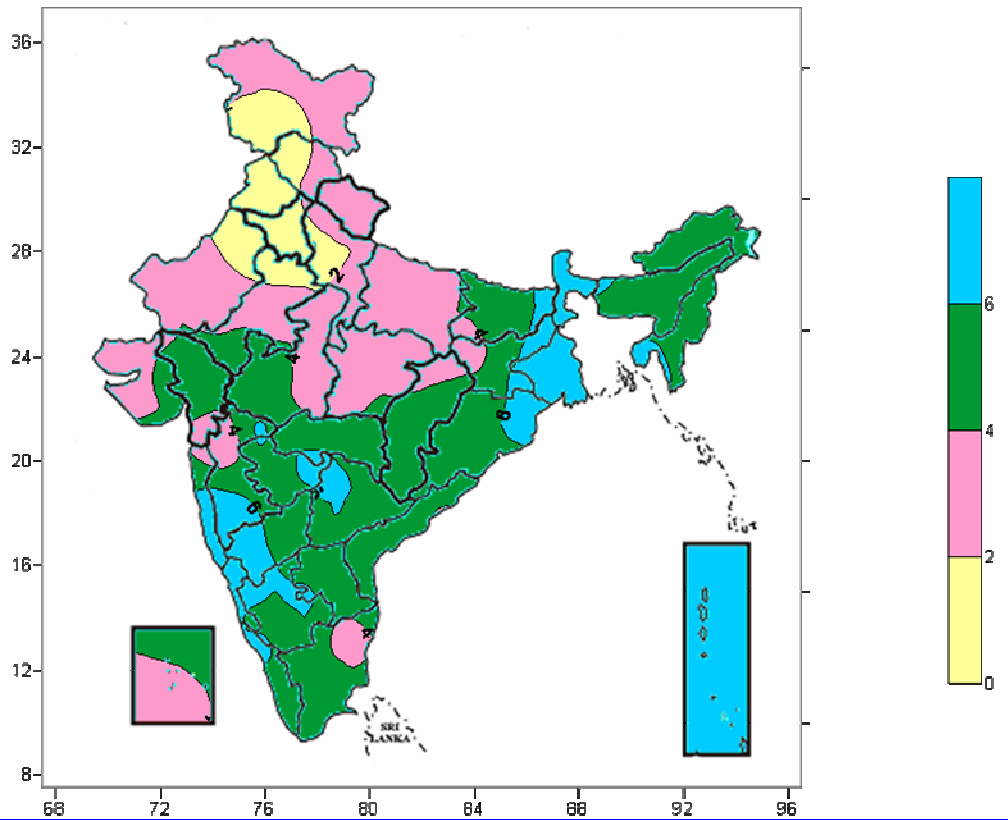
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 04.10.06**



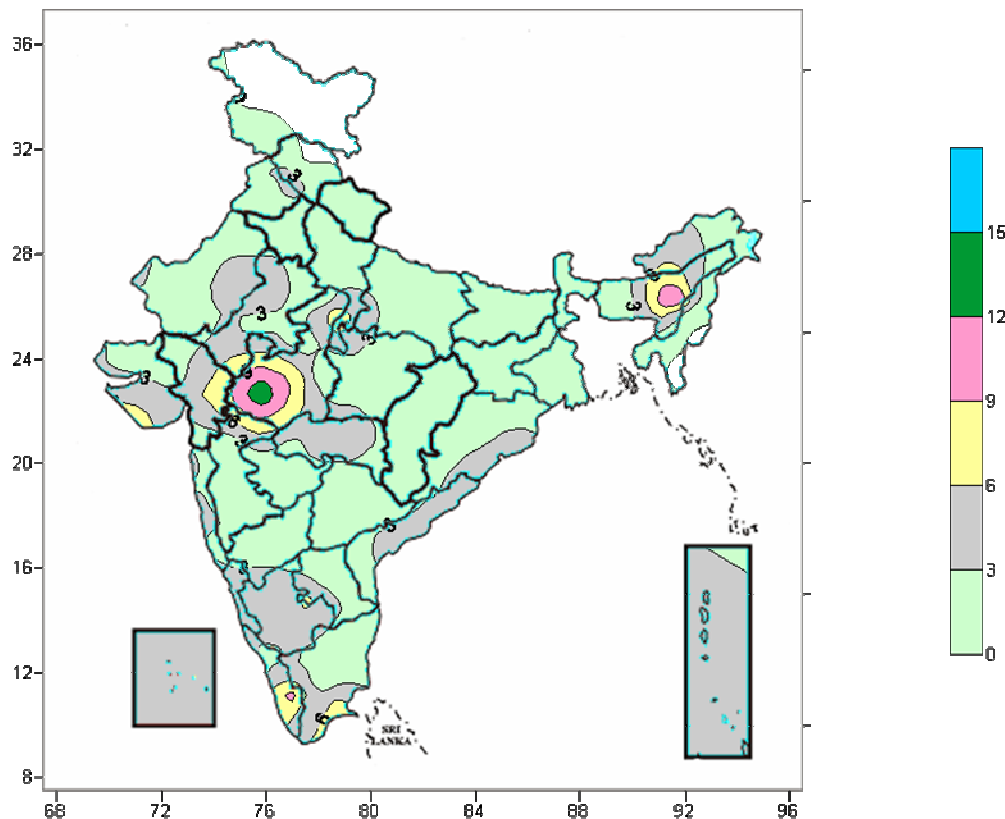
**Relative humidity (%) over India for the week ending 04.10.06**



**Cloud amount (okta) over India for the week ending 04.10.06**



Wind speed (knots) over India for the week ending 04.10.06



## Desert Locust Forecasting



Although the monsoon rains have finished along the **Indo-Pakistan** border and only scattered adults are present, limited breeding could still occur in Rajasthan and the adjoining areas as heavy rains and flooding occurred last month along the **Indo-Pakistan** border (Rajasthan, **India** and Tharparkar, **Pakistan**).

Farmers are advised to monitor locust population and carry out anti locust operations, if the population of the pest crosses Economic Threshold Level (ETL).



## CROP – STATE – STAGE

### Delhi

<b>Toria</b>	<b>Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot, and turnip)</b>	<b>Arhar</b>	<b>Rice</b>	<b>Green gram, black gram</b>
Sowing	Nursery sowing/ Transplanting	Maturity / harvesting	Grain formation / maturity	Maturity/harvesting
<b>Bajra</b>	<b>Fodder (Mixed maize , Lobia)</b>	<b>Maize</b>	<b>Early sown vegetable crops</b>	<b>Mustard</b>
Grain formation / maturity	Vegetative	Maturity	Vegetative/ flowering/ fruiting/ harvesting	Sowing
<b>Berseem</b>				
Sowing				

### Haryana

<b>Horticultural crop</b>	<b>New Horticultural crop</b>	<b>Paddy</b>	<b>Maize</b>	<b>Cotton</b>
Fruiting	Planting	Grain development / early maturity	Cob development / early maturity	Boll development
<b>Bajra</b>	<b>Groundnut</b>	<b>Kharif pulses</b>	<b>Sugarcane</b>	
Ear head maturity / harvesting	Pod development / early maturity	Pod maturity / early harvesting	Vegetative	

### Himachal Pradesh

<b>Rice</b>	<b>Maize</b>	<b>Apple</b>	<b>Summer vegetables (Tomato, brinjal, ladies finger)</b>	<b>Fodder crops</b>
Grain maturity/Harvesting	cob maturity/harvesting	Harvesting	Vegetative/flowering / fruiting / harvesting	Vegetative
<b>Moong / Mash</b>	<b>Fruit plants</b>	<b>Potato</b>	<b>Summer vegetables Radish, Turnip, Carrot</b>	<b>Summer vegetables (Cauliflower, Cabbage) /Aricle peas</b>
Harvesting	New growth	Tuber maturity	Sowing	Preparation of nursery in low hills & Transplanting in high hills / Sowing

### Jammu & Kashmir

<b>Vegetables crops</b>	<b>Rice</b>	<b>Maize</b>	<b>Kharif crops</b>	<b>Horticultural crops</b>
Fruiting / harvesting	Grain formation / development	Grain maturity / early harvesting	Grain development	Vegetative
<b>Fodder crops (Maize, Bajra, MP Chari)</b>	<b>Flower crops</b>	<b>Toria</b>	<b>Brown Sarson</b>	<b>Lentil</b>
Vegetative/cutting	Seed bed preparation for sowing	Sowing	Sowing	Sowing
<b>Wheat</b>				
Sowing				

### Punjab

<b>Sugarcane</b>	<b>Paddy</b>	<b>Maize</b>	<b>Cotton</b>	<b>Kharif pulses</b>
Vegetative	Grain development / early maturity	Cob development / early maturity	Boll development	Pod maturity / early harvesting
<b>Groundnut</b>				
Pod development / early maturity				

### Rajasthan

<b>Cotton</b>	<b>Groundnut</b>	<b>Bajra</b>	<b>Pulses</b>	<b>Soyabean</b>
Boll maturity	Pod maturity	Ear head maturity / harvesting	Pod maturity / harvesting	Pod maturity

<b>Maize</b>				
Cob maturity / harvesting				
<b>Uttar Pradesh</b>				
	<b>Kharif Pulses (Urad &amp; Moong)</b>	<b>Sugarcane</b>	<b>Kharif Vegetables</b>	
	Grain formation / development	Vegetative	Fruiting/harvesting	
<b>Mango</b>	<b>Kharif Maize, Jowar, Bajra</b>	<b>Kharif rice</b>	<b>Toria</b>	<b>Kharif Oilseeds</b>
Harvesting	Grain development / maturity	Panicle initiation/flowering	Sowing	Flowering / seed formation
<b>New Mango</b>	<b>Toria</b>			
Active growth	Sowing			
<b>Uttaranchal</b>				
<b>Rice</b>	<b>Mango/Litchi</b>	<b>Apple</b>	<b>Sugarcane</b>	<b>Toria</b>
Milking / dough / maturity	Seedling	Maturity	Grand growth	Sowing
	<b>Millets (Ragi)</b>	<b>Pea &amp; Potato</b>		
	Grain formation / maturity	Sowing		
<b>Assam</b>				
<b>Maize</b>	<b>Sugarcane</b>	<b>Early winter vegetables</b>	<b>Vegetables</b>	<b>Balck gram and Green gram</b>
Harvesting	Cane maturity / harvesting	sowing	Land preparation	Vegetative
<b>Sali rice</b>	<b>Arhar</b>			
Vegetative / tillering	Vegetative			
<b>Arunachal Pradesh</b>				
<b>Wet seeded rice</b>	<b>Ginger</b>	<b>Potato</b>	<b>Wheat and Mustard</b>	<b>Winter vegetables</b>
Maturity / harvesting	Vegetative	Land preparation	Land preparation / sowing	Nursery sowing / transplanting
<b>Bihar</b>				
<b>Fruits and Vegetables</b>	<b>Winter vegetables</b>	<b>Rice</b>	<b>Maize</b>	<b>Pulses and Oil seeds</b>
Vegetative	Sowing / transplanting	Panicle initiation / flowering	Cob formation	Seed formation / Maturity
<b>Jharkhand</b>				
<b>Rice</b>	<b>Upland crops (groundnut, urad)</b>	<b>Finger millet</b>	<b>Maize</b>	
Panicle initiation / flowering / grain formation	Vegetative / flowering	Vegetative/flowering	Cob formation	
<b>Kharif vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)</b>	<b>Early planted kharif vegetables</b>	<b>Timely sown Arhar</b>	<b>Pea &amp; Tomato</b>	
Transplanting	Early vegetative / vegetative	Maturity / harvesting	Sowing	
<b>Sikkim</b>				
<b>Orange</b>	<b>Rice</b>	<b>Large Cardamom</b>	<b>Rabi vegetables</b>	<b>Ginger</b>
Fruit maturity / harvesting	Grain formation	Harvesting	Transplanting	Maturity / early harvesting
<b>West Bengal</b>				
<b>Aus rice</b>	<b>Sugarcane</b>	<b>Jute</b>	<b>Gram</b>	<b>Aman rice</b>
Grain maturity	Vegetative	Harvesting	Field preparation / sowing	Panicle initiation / flowering
<b>Groundnut</b>	<b>Lentil</b>			
Pod formation	Field preparation / sowing			
<b>Chattisgarh</b>				
<b>Chilly, Brinjal, Ladies finger, Beans, Bottle gourd</b>	<b>Niger, Kulthi</b>	<b>Sugarcane</b>	<b>Kharif rice</b>	<b>Soybean</b>

Vegetative / flowering / fruiting / harvesting	sowing	Vegetative	panicle initiation / flowering	Flowering
<b>Blackgram / Greengram</b>	<b>Groundnut</b>	<b>Red Gram</b>	<b>Tomato, chilli, brinjal</b>	
Flowering/pod formation	Flowering/ pegging	Pod formation	Nursery preparation / transplanting	

**Gujarat**

<b>Kharif Maize</b>	<b>Pre-monsoon irrigated Cotton</b>	<b>Kharif groundnut</b>	<b>Early Sown Rice</b>	<b>Sugarcane</b>
Cob maturity / harvesting	Boll formation / maturity	Pod maturity / harvesting	Early tillering/tillering	Cane development
<b>Kharif Cotton</b>	<b>Castor</b>	<b>Kharif bajra</b>	<b>Kharif Rice</b>	
Vegetative/ square / boll formation	Vegetative	Grin maturity / harvesting	Active tillering / panicle initiation	

**Maharashtra**

<b>Kharif Groundnut (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Tur (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Irrigated Cotton</b>	<b>Sugarcane (Seasonal)</b>	<b>Bajra (Madhya Maharashtra, Marthwada and Vidarbha)</b>
Pod maturity / harvesting	Branching / flower bud formation	Active vegetative/ flowering/ boll formation	Active vegetative / elongation	grain maturity/ harvesting
<b>Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Soyabean (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif rice (Konkan)</b>	<b>Kharif rice (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Ear head formation / flowering  Early sown crops are at grain formation stage	Head formation / maturity / harvesting	pod maturity / harvesting	Flag leaf / panicle initiation / flowering (late varieties) Flowering / grain formation (medium varieties) Grain formation / grain maturity (early maturing)	Active tillering / flag leaf initiation (in Vidarbha) Panicle initiation / flowering / grain formation (in Madhya Maharashtra, Marathwada, Marathwada)
<b>Moong (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Wheat (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Harvesting	Active vegetative	Field preparation / sowing	Field preparation / sowing	Field preparation / sowing
<b>Rabi gram (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi maize (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Rabi Safflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>		
Field preparation / sowing	Field preparation / sowing	Field preparation / sowing		

**Madhya Pradesh**

<b>Sugarcane</b>	<b>Moong</b>	<b>Kharif crops (Jowar, urad, tur)</b>	<b>Kharif Soyabean</b>	<b>Kharif rice</b>
Vegetative	Pod maturity / harvesting	pod formation/ grain formation /maturity	pod maturity	Flowring / grain formation
<b>Maize</b>	<b>Cotton</b>			
Cob formation / maturity	Boll formation			

**Orissa**

<b>Vegetables</b>	<b>Earlier sown vegetables</b>	<b>Early sown Groundnut</b>	<b>Rabi Groundnut</b>	<b>Sugarcane</b>
Sowing / transplanting	Flowering / fruiting / harvesting	Early vegetative / vegetative/ pod	Sowing	Vegetative / tillering

		development		
<b>Kharif rice</b>	<b>Early transplanted rice</b>	<b>Pulses</b>	<b>Early sown Pulses</b>	<b>jute</b>
Tillering / panicle initiation	Early tillering / tillering / panicle initiation	Sowing (Biri / Mung / Kulthi)	Vegetative / flowering / pod maturity	harvesting

**Andhra Pradesh**

<b>Kharif rice</b>	<b>Kharif crops(Chillies/ Chillies/ Tur)</b>	<b>Maize</b>	<b>Groundnut</b>	<b>Cotton</b>
Tillering	Flowering	Cob formation	Flowering	Ball Formation

**Karnataka**

<b>Groundnut</b>	<b>Sugarcane (Ratoon crop &amp; new crop)</b>	<b>Kharif crops (jowar, maize)</b>	<b>Kharif rice</b>	<b>Kharif cotton</b>
Pod formation	Grand growth	Maturity	Tillering	Boll formation

**Kerala**

<b>Rubber</b>	<b>Virippu Rice</b>	<b>Pepper</b>		
Tapping	Harvesting	Berry development /maturity		

**Tamil Nadu**

<b>Pulses</b>	<b>Millets</b>	<b>Summer irrigated cotton</b>	<b>Early &amp; mid sugarcane</b>	<b>Groundnut</b>
Pod formation/Maturity	Grain formation / Maturity	Maturity / Harvesting	Grand growth	Pod formation/Maturity
<b>Rice (Kuruvai)</b>				
Tillering				