



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

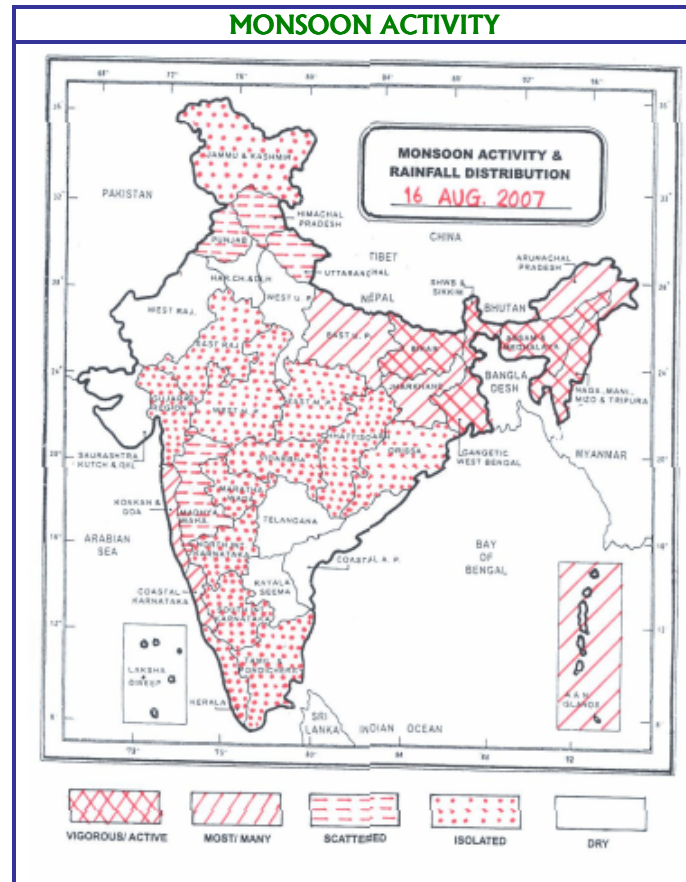
Issued by

Agricultural Meteorology Division, India Meteorological  
Department, Pune, India

**Thursday, 16<sup>th</sup> August, 2007**

(For the period 16<sup>th</sup> to 20<sup>th</sup> August, 2007)

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



## Agromet Advisory

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

#### Kerala

- Southwest monsoon was weak over the State during this period. Rain occurred at a few places on 13<sup>th</sup> August and isolated places on 14<sup>th</sup> & 15<sup>th</sup> August.
- Isolated light rain/thundershowers are likely over the State.

#### Advisories

- As there was sufficient rainfall in most of the districts during last week and rain/thundershowers is likely to occur at isolated places over the State for the next three days, postpone irrigation to plantation crops viz., coconut, arecanut, rubber and banana. Provide drainage facilities in the waterlogged fields.
- Continue intercultural operations, application of fertilizers and pesticides in plantation crops.
- Monitor *virippu* rice for rice bug and for blast & bacterial blight diseases. Spray Malathion 50 EC @ 2 ml/litre of water to control the pest and apply *Pseudomonas* @ 2.5 kg along with 50 kg cow dung to control the diseases.

- Attack of bunchy top is reported in banana. Apply Phorate 10 G @ 25gm or Cabofuran 3 G @ 20gm per pit around the rhizome.
- Attack of *Phytophthora* foot rot, quick wilt and pollu beetle is reported in pepper. Drench the vines over a radius of 45-50 cm with 0.2% copper oxy chloride. A foliar spray with 1% Bordeaux mixture also may be given to control the diseases. Spray Quinalphos @ 0.05% to control pollu beetle.

### **Tamilnadu**

- Rainfall occurred at one or two places over the State on 13<sup>th</sup>, 14<sup>th</sup> August and mainly dry weather prevailed on 15<sup>th</sup> August.
- Weather may be mainly dry over the State.

### **Advisories**

- Undertake transplanting of *samba* rice in the main field. Apply pre-emergence herbicide Butachlor @ 1 litre/ha on 3<sup>rd</sup> day after planting.
- As there was no significant rainfall in the state and weather may be mainly dry over the State for the next three days, apply irrigation to sugarcane. Postpone irrigation in Nilgiris district as there was sufficient rainfall during last week.
- Undertake sowing of maize (*Adippattam* – July-Aug crop). Use 6 kgs of seeds/acre. Treat the seeds with *Azospirillum* and Phosphobacteria one packet each for one acre seeds.
- Monitor sugarcane for stem borer and if the pests population crosses ETL, release *Trichogramma* egg parasite @ 5cc/acre to control the pest.
- Continue picking matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.
- Continue sowing of rainfed groundnut, black gram, green gram and red gram. Use 112 kg pods/ha for groundnut and 20 kg/ha for pulse crops.
- Continue planting of special season sugarcane. Undertake sett treatment with *Azotobacter* before planting. Start harvesting late sugarcane.
- Continue sowing rainfed millet crops like jowar, bajra and samai. Undertake seed treatment with *Azospirillum* before sowing.

### **Karnataka**

- Monsoon was weak over the State on all days. Rainfall occurred at most places on 13<sup>th</sup> August and at a few places on 14<sup>th</sup> and 15<sup>th</sup> August over Coastal Karnataka. Rainfall occurred at isolated places over Interior Karnataka on all days.
- Isolated light rain/thundershowers are likely to occur over the State.

### **Advisories**

- As there was no significant rainfall during last week in the State and isolated light rain/thundershowers are likely to occur over the State for the next three days, apply irrigation to summer sugarcane, *Kharif* jowar, maize, cotton, groundnut and sunflower. Postpone irrigation in Chickmagalur, Kodagu and Shimoga districts in South Interior Karnataka as there was excess rainfall during last week. Drainout excess water from waterlogged fields.
- Continue intercultural operations, application of fertilizers and pesticides to *kharif* jowar, maize, cotton, groundnut and sunflower.
- Monitor sugarcane for white woolly aphids in Mysore, Mandya and Hassan districts and release predators *viz.*, *Dipha* sp. to control the pest.

### **Andhra Pradesh**

- Southwest monsoon was active over Telangana on 12<sup>th</sup> August. Rain occurred at many places over Coastal Andhra Pradesh on 12<sup>th</sup> August, at a few places over Telangana on 9<sup>th</sup> and 13<sup>th</sup> August, over Coastal Andhra Pradesh on 11<sup>th</sup> and 13<sup>th</sup> August. Isolated rain occurred elsewhere over the State during the week.

- Isolated light rain/thundershowers are likely over Coastal Andhra Pradesh and Telangana. Weather will be mainly dry over Rayalaseema.

#### **Advisories**

- Continue main field preparation and transplanting of *kharif* rice by utilizing the monsoon rainfall. Transplant rice seedlings at proper age. Apply pre-emergence herbicide Butachlor @ 1 litre/ha on 3<sup>rd</sup> day after planting.
- As there was no significant rainfall in the state during last week except in Khammam, and Warangal districts in Telangana and isolated light rain/thundershowers are likely over Coastal Andhra Pradesh & Telangana and weather will be mainly dry over Rayalseema for the next three days, apply irrigation to *kharif* crops viz., groundnut, cotton, maize, green gram and black gram to bring the soil moisture to field capacity. Postpone irrigation in the above mentioned districts as there was sufficient rainfall during last week.
- Incidences of stem borer have been reported in maize. Spray Endosulphan @ 2 ml/litre of water to control the pest if the damage crosses ETL. Monitor cotton for sucking pests and if the damage crosses ETL spray Imidachloprid @ 0.5 ml/litre of water to control the pest.
- Undertake earthing up in early sown *kharif* crops to keep the field weed free.

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

#### **Assam**

- Light to moderate rain occurred at most places on 14<sup>th</sup> & 15<sup>th</sup> August and at many places on 13<sup>th</sup> August with isolated heavy falls on 13<sup>th</sup> & 14<sup>th</sup> August and isolated rather heavy falls on 15<sup>th</sup> August over the State.
- Rain/ thundershowers are likely at many places over the State.

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

#### **Advisories**

- Sali rice is damaged in few localities due to flood. After receding of flood water if the land cannot be transplanted due to shortage of sali rice seedling, sprouted seeds of variety –Luit, Kopili, Culture-1 or local short duration variety seed may be directly sown after current spells of rain.
- Prepare land for after current spells of rain and continue transplanting of Sali rice. Apply urea @ 6 kg, SSP @ 17 kg, Mop @ 4 kg per bigha. The uprooted seedlings are to be washed and then the root portion is dipped in 0.2% solution of Chloropyriphos (1 ml per litre of water) along with 1% of urea for three hrs as protective measure against stem borer, gall midge and and hopper.
- As rain/ thundershowers are likely at many places over the State for the next three days, with isolated heavy to very heavy falls during next 48 hours, postpone irrigation to sugarcane and arhar. Provide adequate drainage facilities to avoid waterlogging due to heavy rainfall.
- Harvest already matured crop of jute and maize.
- Jute crop is to be harvested at small pod stage to get optimum yield and good quality fibre.
- Harvesting of maize should be done on bright sunny days as soon as husk cover turns brown in colour and the silks are completely dry. Birds may damage maize crop at maturity stage. The matured cobs can be protected from attack of birds by tying the cobs with leaves of same plant. Shining coloured strips may also be used to scare the birds.
- Old and dry leaves should be removed and sugarcane should be provided with mechanical support to prevent lodging.
- Incidence of hispa and stem borer was noticed in Sali rice in few localities. Monitor the infestation of hispa and stem borer. If one adult is noticed per hill, insecticides like Chloropyriphos 20 E.C. @ 2 ml per litre of water or Monocrotophos 40 EC @ 1.5 ml per litre of water is to be applied. Apply chemicals after current spells of rain. For management of

yellow stem borer *Trichogramma Japonicum* @ 50,000 per hectare in six releases are to be used.

- Seeds of black gram varieties T-9, Pantu-19, Saonimah SB-12 and green gram varieties T-44, Pratap and AAU-39 should be sown in the field after current spell of rain where Sali rice could not be cultivated due to shortage of seedling damaged by flood water and also in uphill land till 15th September. Seeds should be inoculated with 150 gm of *Rhizobium* culture for 3 kg of seeds. Fertilizer @ 3 kg Urea, 30 kg SSP per bigha should be applied after current spells of rain for more yields.

### **Arunachal Pradesh**

- Sky remained mainly cloudy over the State during the period. Light to moderate rain /thundershowers occurred at most places on 15<sup>th</sup> August, at many places 13<sup>th</sup> and 14<sup>th</sup> August.
- Rain/ thundershowers are likely at many places over the State.

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

### **Advisories**

- As rain/ thundershowers are likely at many places over the State for the next three days, with isolated heavy to very heavy falls during next 48 hours, postpone irrigation to millet, *jhum* paddy and ginger crops. Provide adequate drainage facilities to avoid waterlogging due to heavy rainfall.
- Continue weeding, spraying and intercultural operations after current spells of rain.
- Harvest the matured maize crop bright sunny days.

### **Bihar**

- Moderate to heavy rain occurred at most places on 12<sup>th</sup>, 13<sup>th</sup> & 15<sup>th</sup> August. Heavy to very heavy rain occurred at many places on 14<sup>th</sup> August.
- Rain/thundershowers are likely at many places over the State.

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

### **Advisories**

- Direct seeded short duration rice (less than 115 days) can be sown in flood water receding areas after current spells of rain.
- As rain/thundershowers are likely at many places over the State for the next three days with isolated heavy to very heavy rainfall during next 48 hours, postpone irrigation to maize, arhar and sugarcane. Provide adequate drainage facilities to avoid waterlogging due to heavy rainfall.
- Monitor the mango for mealy bug or hopper & if exceeds economic threshold level, then spray with Carboryl @ 2g/litre of water after current spells of rain.

### **Jharkhand**

- Fairly widespread rainfall occurred over the State.
- Rain/thundershowers are likely at many places over the State.

### **Advisories**

- Complete transplanting of *Kharif* rice and continue sowing of upland crops viz. maize, arhar, groundnut, soybean, urad, and rice.
- As rain/thundershowers are likely at many places over the State for the next three days, postpone irrigation postpone irrigation to vegetables, maize, arhar, groundnut, soybean and urad.
- To prevent from powdery mildew of small fruits in Mango and Litchi, spray sulfex@ 2gm/litre of water after current spells of rain.
- Monitor the crop for stem borer infestation and if exceeds economic threshold level, about 10 granules of carbofuron should be applied in earhead. After weeding, top dressing of urea @ 75 kg urea per hectare may be applied after current spells of rain and do earthing.

- Topdressing of urea @ 30 kg per hectare for early sown rice and @ 75 kg/ha for maize may be done after current spells of rain.

### **Sikkim**

- Sky remained overcast during the period. Moderate to nearly heavy rain occurred on 11<sup>th</sup>, 12<sup>th</sup>, 14<sup>th</sup> August, light to moderate rain on rest of the days during the period. The rainfall was deficient during the period over East Sikkim.
- Rain/thundershowers are likely at many places over the State.

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

### **Advisories**

- As rain / thundershowers are likely at many places over the State for the next three days with isolated heavy to very heavy falls is likely over the state, postpone irrigation to orange, vegetables, and ginger. Provide adequate drainage facilities as heavy rainfall is expected.
- Maintain 4-5 cm water level in the rice field.
- Continue harvesting matured vegetable crops as per market demand.
- Start harvesting maize and large cardamom on bright sunny days.
- Monitor ginger for rhizome rot and bacterial wilt and rouge out the affected plants and destroy completely to prevent further damage.
- Monitor orange for leaf miner and trunk borer. Spray neem based pesticides to control leaf miner. Plug trunk borer holes with cotton soaked with kerosene and later with mud to prevent trunk borer.

### **West Bengal**

- During the said period rainfall occurred at a few places on 13<sup>th</sup> August, at most places heavy at an isolated places on 14<sup>th</sup> August and at most places with heavy to very heavy and extreme heavy at an isolated places on 15<sup>th</sup> August over Sub Himalayan West Bengal. During the period rainfall occurred at most places with heavy to very heavy at a few places on 13<sup>th</sup> August, at most places with heavy to very heavy at an isolated places on 14<sup>th</sup> August and at a few places on 15<sup>th</sup> August over Gangetic West Bengal.
- Rain / thundershowers are likely at many places over the State.

**Warning:** Isolated heavy to very heavy falls is likely over Sub-Himalayan West Bengal.

### **Advisories**

- As rain/thundershowers are likely at many places over the State for the next three days with isolated heavy to very heavy falls is likely over Sub-Himalayan West Bengal during next 48 hours, postpone irrigation to sugarcane, jute, groundnut and arhar. Provide adequate drainage facilities in Sub-Himalayan West Bengal due as heavy rainfall is expected.
- Maintain 3 – 5 cm water in the field of *aus* rice.
- Transplant 25 – 30 days old seedlings of *aman* rice in the main field. Apply 15 kg N, 30 kg P<sub>2</sub>O<sub>5</sub> and 30 kg K<sub>2</sub>O / ha to short duration varieties and 20 kg N, 40 kg P<sub>2</sub>O<sub>5</sub> and 40 kg K<sub>2</sub>O / ha to medium and long duration varieties. Select varieties from Hira, Aditya, Prasanya etc. for broadcasting and Rassi, Tulsi, Annada, Biraj, IR – 64, IR – 36, Ratna, Swarna, Nalini, Amulya etc. for transplanting.
- Maintain 2 – 3 cm of water in *aman* rice field 2 – 3 days after transplanting. Maintain 3 – 5 cm water in the field wherever crops are at tillering stage.
- Undertake intercultural operation on a non-rainy day in Gangetic West Bengal and after current spells of rain in Sub-Himalayan West Bengal to keep the field weed free.

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

### **Gujarat**

- Rainfall occurred at most places over Gujarat region, Daman, Dadra Nagar Haveli, at few places over Saurashtra, Kutch & Diu on 13<sup>th</sup> August. Rainfall occurred at many places over

Gujarat region, Daman, Dadra Nagar Haveli, at isolated places over Saurashtra & Kutch on 14<sup>th</sup> August. Rainfall occurred at a few places over Gujarat region & at isolated places over Saurashtra, Kutch on 15<sup>th</sup> August.

- Isolated rain/thundershowers are likely to occur over the State

#### **Advisories**

- Prepare the main field by puddling method and transplant 25 – 30 days old rice seedlings in the field.
- Prepare land by two ploughing after current spells of rain for sowing of castor. Apply 10 mt. FYM or 1 Mt. castor cake. Apply 40 kg N and 25 kg phosphorus / ha in furrows as basal dose. Select varieties from hybrid castor GAUCH-1, GCH-2, 4, 5, 6 for sowing.
- As most of the districts of the State received excess rain during last week and rain / thundershowers are likely at isolated places over the State for the next three days, postpone irrigation to sugarcane, *kharif* groundnut, *kharif* cotton, *kharif* bajra and *kharif* maize. Arrange for draining out of excess water from the waterlogged fields.
- Maintain 2 – 3 cm water after 3 – 4 days after transplanting of *kharif* rice. Maintain 3 – 5 cm water at tillering stage.
- If *kharif* groundnut appears yellowish, spray 100 grams hirkasi (Ferrous sulphate) + 10 grams lemon aec dissolved in 10 liter of water / ha by making a solution in 500 liters of water to the crop.
- For monitoring and management of boll worm in *kharif* cotton, hang 5 pheromone traps in one ha of land. Change the lures at an interval of 15 days. Destroy trapped moths every day.
- Weeding, intercultural operation and top dressing of Nitrogen may be done in *kharif* maize, cotton, bajra and groundnut crops.

#### **Chhattisgarh**

- Monsoon was active on 13<sup>th</sup> & 14<sup>th</sup> August. Rainfall occurred at one or two places on 15<sup>th</sup> August in the State.
- Rain/thundershowers are likely to occur at a few places over State.

#### **Advisories**

- Prepare land and transplant 25 – 30 days old seedlings of *kharif* rice in the main field. Transplant 2 – 3 seedlings per hill. Half part of Nitrogen and full dose of Phosphorus and Potash may be applied at the time of land preparation. Germinated sowing may be done in the field with excess water. The suitable varieties are Mahamaya, MTUS – 1010, IR-64, Bamleshwari, Chandrahasani etc.
- Maintain 2 – 3 cm water after 3 – 4 days after transplanting of *kharif* rice. Maintain 3 – 5 cm water at tillering stage.
- As there was sufficient rainfall during last week in most of the districts of the State and rain/thundershowers are likely to occur at a few places over state, postpone irrigation to sugarcane and maize and also to black gram, green gram, groundnut and soybean.
- When the sugarcane crop attains a height of 5 – 6 feet, 4 – 5 plants may be tied together to prevent lodging from gusty wind.

#### **Maharashtra**

- Rain occurred at most places in North Konkan, at many places in South Konkan, at a few places in Madhya Maharashtra & Vidarbha and at isolated places in Marathwada.
- Rain/thundershowers are likely to occur at a few places over Konkan, Madhya Maharashtra and at isolated places over Marathwada & Vidarbha.

#### **Advisories**

- As there was no significant rain in the State during last week and rain/thundershowers are likely to occur at a few places over Konkan, Madhya Maharashtra and at isolated places over Marathwada & Vidarbha during next three days, apply irrigation to the standing crops.

- As sufficient rain occurred in Bhandara, Gadchiroli, Raigad, Thane, Kolhapur, Nandurbar, Nashik & Satara districts of the State during last week, postpone irrigation to the crops in these regions.
- Maintain 3 – 5 cm water in the rice field wherever crops are at tillering stage.
- A dose of 60 kg Nitrogen / ha may be applied after 30 days from sowing to *kharif* jowar.
- Apply 44 kg Urea / ha for non-irrigated *bajra* & 88 kg Urea / ha for irrigated *bajra* after 25 to 30 days from sowing to the crop.
- Apply 125 kg Gypsum per hectare after 25 to 30 days from sowing of *kharif* groundnut.
- A dose of 30 kg Nitrogen / ha may be applied after 30 days from sowing of *kharif* sunflower.
- Mild incidence of white woolly aphids in Kolhapur division of Maharashtra in sugarcane (pre-seasonal), sap sucking insects in Aurangabad and Latur, aphids & jassids in Amravati & Nagpur and aphids, jassids, thrips in Nashik division in irrigated cotton, blast and stem borer in Konkan in *kharif* rice and hairy caterpillar in Aurangabad division in *kharif* sunflower is reported.
- Monitor sugarcane (pre-seasonal) for White Woolly Aphids & if exceeds economic threshold level, for effective control spray 500 ml Endosulphan 35%+ Metasystox 1000 ml & 500 ml Sticker or 500 gm detergent powder / ha in 500 liters of water. For the biological control of White Woolly Aphids, release 25000 larvae of *Chrysoperla carnea* or *Dipha aphidivora* / ha as predator after 15 days from the above dose.
- For the control of Sap sucking insects and aphids, jassids & thrips in irrigated cotton, spray 5 % Neem extract or release 10,000 to 15000 larvae of *Crysoperla carnea* and if infestation exceeds economic threshold level, spray 30 % WSC Diamethoate 1000 ml or 25 % WSC Methyl dimeton 320 ml / ha in 500 liters water.
- Monitor *kharif* rice for Blast & if exceeds economic threshold level, spray Bavistin 500 gm / ha in 500 liters water.
- Monitor *kharif* rice for Stem borer & if exceeds economic threshold level, apply 10G Foret (Granular) or 5 G Quinolphos powder @ 15 kg / ha or spray 50 % fenitrothion @ 800 ml / ha in 500 liters water.
- Water may be drained out from *kharif* rice field before the application of plant protection measures & may be applied again after 24 hours of application of plant protection measures.
- Monitor *kharif* sunflower for hairy caterpillar & if exceeds economic threshold level, spray 5 % Neem extract or Quinolphos 25 EC @ 1000 ml or Endosulphan 36 EC @ 1000 ml / ha in 500 liters water.
- Undertake intercultural operation and apply fertilizer and plant protection measures on a non rainy day in Konkan and Madhya Maharashtra.

### **Madhya Pradesh**

- Rainfall occurred at a few places over South M.P. on all days, North East M.P. on 14<sup>th</sup> and 15<sup>th</sup> August and at isolated places over the rest of the State for remaining period.
- Rain / thundershowers likely to isolated places over the State.

### **Advisories**

- As there was no significant rainfall in most of the districts in the State during last week and rain / thundershowers likely to isolated places for the next three days, apply irrigation to sugarcane and other *kharif* crops viz., soybean, maize, urd and jowar.
- Undertake intercultural operation in sugarcane and *kharif* crops to keep the field weed free. Application of fertilizers may be undertaken as there is sufficient moisture in the soil.

## **Orissa**

- South West monsoon has been active over the State on 13<sup>th</sup> August. Rainfall occurred at most places on 13<sup>th</sup> August, at a few places on 14<sup>th</sup> August & at isolated places on 15<sup>th</sup> August over the State.
- Rain/thundershowers are likely to occur at a few places over the State during next 48 hours and increase thereafter.

## **Advisories**

- As there was sufficient rainfall in most of the districts during last week and rain/thundershowers are likely at a few places over the State during next 48 hours and increase thereafter, postpone irrigation to the crops and also make arrangement to drain out excess water from the field.
- Continue sowing / transplanting of vegetable crops.
- Monitor sugarcane for top shoot borer and if the damage exceeds ETL, undertake spraying of Monocrotophos or Triazophos or Prefonophos @ 400 ml/acre in a non rainy day.
- Monitor jute for leaf eating caterpillar and spray Endosuphan @ 2.5 ml/liter of water in a non rainy day, if the damage crosses ETL.

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

### **Punjab**

- Rainfall occurred at many places on 14<sup>th</sup> August, at a few places on 13<sup>th</sup> August and at isolated places on 15<sup>th</sup> August during the period.
- Mainly dry weather is likely over the State.

### **Advisories**

- As there was no significant rainfall in most of the districts and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, cotton, pulses, groundnut(early sown crop) and Horticultural crops. Postpone irrigation in Gurdaspur and Ropar districts as there was excess rainfall during last week.
- Undertake transplanting of basmathi rice.
- Attack of mealy bug in cotton has been observed. Farmers are advised to take adequate plant protection measures, and host plants may be destroyed to control further spread. They are also advised to spray recommended pesticides and to destroy them manually. Adequate arrangement be made to drain out standing water.

### **Haryana**

- Mainly dry weather is likely over the State.

### **Advisories**

- As there was no significant rainfall in most of the districts and mainly dry weather is likely over the State for the next three days, apply irrigation to irrigation to sugarcane, cotton, pulses, groundnut(early sown crop) and Horticultural crops, Postpone irrigation in Ambala and Panchkula districts as there was excess rainfall during last week.
- Undertake transplanting of basmathi rice.
- Incidence of thrips on cotton, white fly on moong, and shoot borer in sugarcane reported below ETL. Monitor the crop & if exceeds economic threshold level, for effective control of cotton thrips, spray 250ml Rogor 30EC per hectare, Metasystox 25EC 1ml/l of water to control white fly in moong, and sprinkle Endosulfan 5 percent granules in the leaf whorls and axils for effective control of shoot borer in sugarcane.

### **Rajasthan**

- Light to moderate rainfall occurred at isolated places in Udaipur division and weather remained mainly dry in rest divisions of the State.



- Weather may be mainly dry over the State.

#### **Advisories**

- As there was no significant rainfall in most of the districts during last week and weather may be mainly dry over the State for the next three days, apply irrigation to early sown *kharif* crops viz., bajra, jowar, maize, guar, moong, moth bean and urd. Postpone irrigation in Banswara, Dungarpur and Sirohi districts as there was excess rainfall in these districts during last week.
- Undertake intercultural operations in early sown *kharif* crops to keep the field weed free. Intercultural operations may be continued.
- Monitor *desi* and *American* cotton for sucking pests. If the pests population crosses ETL, spray Endosulphan @ 1.25 liters/ha to control the pests.

#### **Uttar Pradesh**

- Moderate to rather heavy rain occurred at most places in Gorakhpur, Allhabad ,Faizabad, division and at many places in Varanasi , light to moderate rain occurred at few places Jhansi, Kanpur , Bareilly , Lucknow divisions and. Weather was mainly dry in Agra and Meerut divisions on 13<sup>th</sup> August. Moderate to rather heavy rain occurred at most places in Allhabad , Varanasi division and at many places in Jhnasi , Bareilly , Kanpur, Gorakhpur divisions and at few places in Faizabad, Lucknow ,Meerut ,Moradabad divisions. Weather was mainly dry in Agra division on 14<sup>th</sup> August. Rain occurred at most places in Faizabad, Varanasi , Gorakhpur divisions and at many places in Lucknow divisions and at few places in Moradabad division. Weather was mainly dry in Bareilly, Agra, Jhansi, Meerut divisions of U.P. on 15<sup>th</sup> August.
- Mainly dry weather is likely over West Uttar Pradesh. Rain/thundershowers are likely at many places over East Uttar Pradesh during next 48 hours and increase thereafter.

**Warning:** Isolated heavy to very heavy falls is likely over East Uttar Pradesh.

#### **Advisories**

- Continue sowing/transplanting of short duration varieties of rice after receding of flood water where the crops are damaged due to flooding. Continue sowing of til and soybean.
- As rain/thundershowers are likely at many places over East Uttar Pradesh during next 48 hours and increase thereafter, postpone irrigation to the crops. Provide adequate drainage facility as heavy rain is expected.
- As there was no significant rainfall during last week in west U.P and mainly dry weather is likely for the next three days, apply irrigation to the crops.
- Proper drainage arrangements for avoiding waterlogging in turmeric may be done.
- Monitor the top borer in sugarcane, if exceeds economic threshold level, dip the small branches of neem and people around the field to catch white grub and collect insects and to destroy, spray the solution of 0.5% Monocrotophos. Spray pesticides in a non rainy day in East U.P.

#### **Himachal Pradesh**

- Precipitation occurred at few places in the State.
- Isolated rain/thundershowers are likely over the State.

#### **Advisories**

- Continue land preparation and transplanting of rice. The seedbed should be irrigated a day before uprooting of the seedlings. The seedlings should be pulled gently so that the roots are not injured. Repair all bunds. Incorporate all the organic matter about two weeks ahead of transplanting by ploughing the field to enable decomposition. Begin puddling about 2-3 days before transplanting. Prepare the field into a soft puddle. This will help minimize losses due to percolation of water. Uniformly level the fields before application of fertilizers.
- Harvest already matured fruits of apple.

- As there was sufficient rain during last week in most of the districts of the State, postpone irrigation to vegetables, potato and maize.
- Maintain 3 – 5 cm water in rice field wherever crops are at tillering stage.
- Zinc deficiency symptoms may appear on the 3<sup>rd</sup> or 4<sup>th</sup> basal leaf after 3-4 weeks of transplanting of rice. The mid ribs become yellowish particularly at the base of the leaf but the leaf tip remains normal green. If the deficiency symptoms appear in the leaves, 0.5 per cent zinc sulphate solution (5 kg zinc sulphate mixed with 2.5 kg calcium hydroxide per ha) could be sprayed.
- There is mild chance of attack of leaf spot disease in cabbage and cauliflower. If attack crosses economic threshold level, spray dithane M - 45 to control the disease.
- There is mild chance of attack of late blight disease in potato. If attack crosses economic threshold level, spray blitox – 50 / copper oxychloride @ 300 g in 100 litres of water to control the disease.

### **Uttarakhand**

- Heavy rainfall was recorded at isolated places on 13<sup>th</sup> August, at a few places on 14<sup>th</sup> August and at isolated places on 9<sup>th</sup> August, moderate rain was recorded at many places on 15<sup>th</sup> August and at few places on 11<sup>th</sup> August, light to moderate rain was recorded at many places on 12<sup>th</sup> August, while it was mainly dry on 10<sup>th</sup> August. Sky remained partly cloudy to overcast during the week.
- Isolated rain/thundershowers are likely over the State.

### **Advisories**

- As there was sufficient rainfall in most of the districts during last week and rain/thundershowers are likely at isolated places over the State, postpone irrigation to sugarcane, potato, and ginger. Provide drainage facilities to avoid waterlogging.
- Undertake intercultural operations keep the field weed free in potato, sugarcane, rice and in orchards.
- Monitor apple for thrips and mites, if the pest population crosses ETL and undertake plant protection measures.

### **Jammu & Kashmir**

- Moderate to heavy rain/thundershowers occurred at most places on 14<sup>th</sup> August. Light to moderate rain occurred at many places on 15<sup>th</sup> and at few places on 13<sup>th</sup> August over J & K divisions.
- Isolated rain/thundershowers are likely over the State.

### **Advisories**

- As there was sufficient rainfall in most of the districts during last week and isolated rain/thundershowers are likely over the State for the next three days, postpone irrigation to maize, vegetable and fruit crops in Kashmir division and to maize in Jammu division.
- Maintain 5 cm standing water in rice field in Kashmir division.
- Weather conditions are favourable for the attack of brown plant hopper and *Hispa* in rice in Jammu division. Spray Endosulfan @ 1.5 litre/ha to prevent the pests.
- Monitor pulse crops for mosaic and rouge out the affected plants to prevent further damage.
- Weather conditions are favourable for the attack of stem borer in maize in Jammu division. Spray Endosulfan @ 1.5 litre/ha to prevent the pest.
- Continue sowing of cabbage, cauliflower, kale and knol-khol in nurseries and sowing of carrot for seed purpose in Kashmir division.
- Undertake planting citrus, litchi, loquat, guava and papaya in orchards in Jammu division.

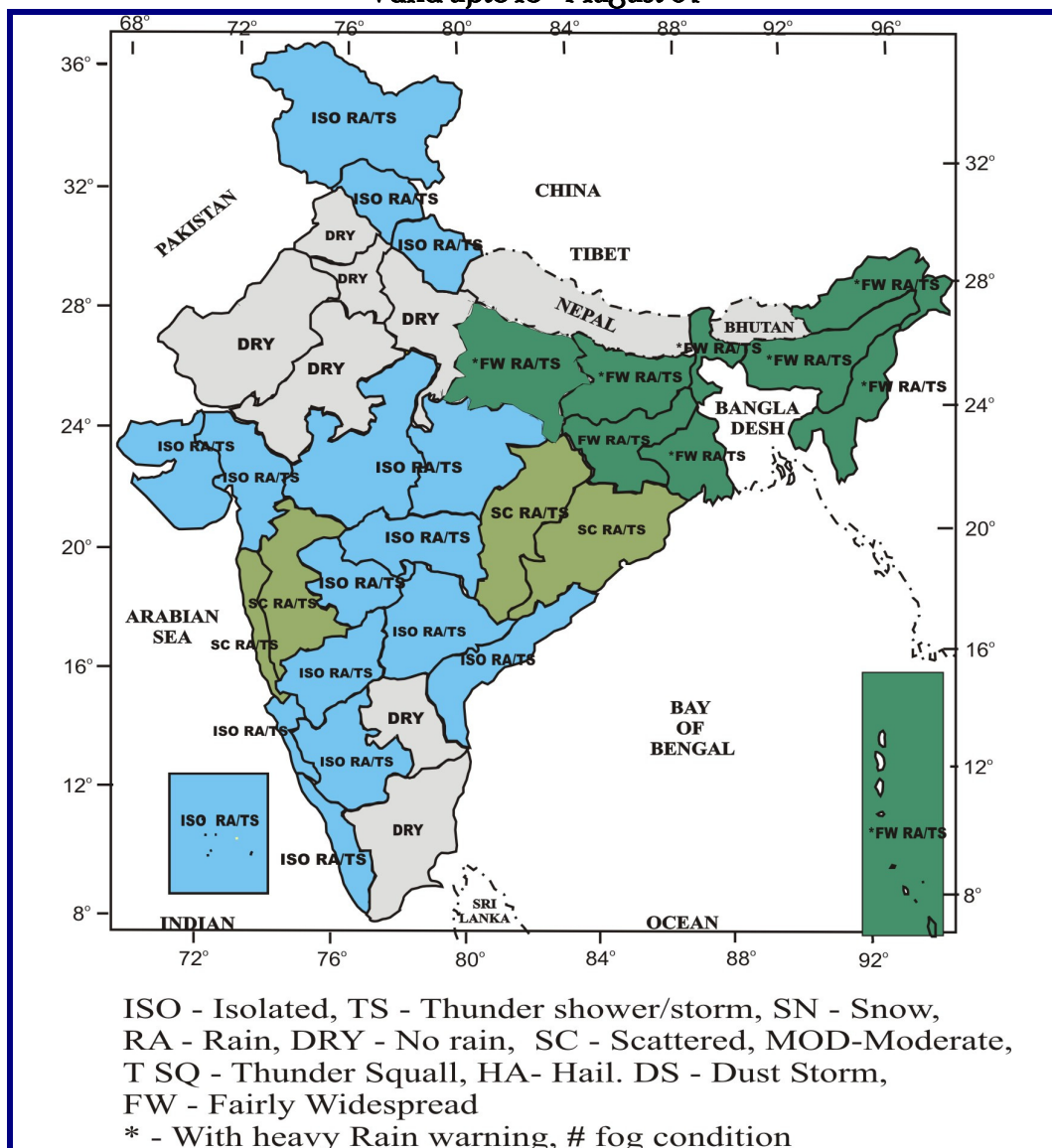
## Delhi

- Light to moderate rain occurred on the 13<sup>th</sup> August at a few places .Weather remained mainly dry on rest of the days.
- Mainly dry weather is likely over the State.

## Advisories

- As there was no significant rainfall over the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to vegetables and also to arhar, maize and bajra.
- Maintain 3 – 5 cm water in the rice field at tillering stage. Apply urea @ 100 kg / ha at 3 – 4 weeks after transplanting.
- Prepare land and perform transplanting of 5 – 6 weeks old early cauliflower and cabbage and nursery sowing of mid period cabbage and cauliflower.
- Undertake intercultural operation to keep the field weed free and application of fertilizer and plant protection measures to the crops.

**Forecast Map**  
**Valid upto 19<sup>th</sup> August 07**



# *Salient weather features for the week ending 15/08/07*

## **METEOROLOGICAL ANALYSIS**

- Last week's well marked low pressure area over West Madhya Pradesh and neighbourhood lay as a low pressure area over Kutch and adjoining south Rajasthan on 9th. It moved away westwards on 10th.
- A fresh low pressure area formed over northwest Bay of Bengal off Orissa-West Bengal coast on 10th. It persisted over the same area and became well marked on 12th. It lay over Gangetic West Bengal and neighbourhood on 13th. It lay as a low pressure area over Bihar and neighbourhood on 14th and became less marked on 15th. However, the associated upper air cyclonic circulation lay over Bihar and neighbourhood extending upto 3.6 km above mean sea level with an upper air trough extending from the centre of cyclonic circulation to north Bay of Bengal.
- An off shore trough ran from Gujarat coast to Kerala coast during first half of the week and from Gujarat coast to Karnataka coast during second half of the week.
- The axis of the monsoon trough lay to the south of its normal position in the beginning of the week. The western end of the monsoon trough gradually shifted northward and lay north of its normal position or close to the foothills of the Himalayas from 11th onwards. With the movement of the low pressure area over northwest Bay of Bengal to Bihar, the eastern end of the monsoon trough also shifted northward and lay close to the foothills of the Himalayas during 14-15th August.
- A trough in westerlies at lower and mid tropospheric levels embedded with cyclonic circulation moved over western Himalayan Region during second half of the week.

## **RAINFALL**

Under the influence of the above systems:

- Widespread/fairly widespread rainfall occurred over Orissa during 11-13th and over Gangetic West Bengal during 12-14th.
- Widespread/fairly widespread rainfall occurred over northeastern states, Sub-Himalayan West Bengal & Sikkim, Bihar, Jharkhand and East Uttar Pradesh during second half of the week.
- Widespread/fairly widespread rainfall occurred over Gujarat Region, Konkan & Goa and Coastal Karnataka during many days of the week and over Saurashtra & Kutch, Madhya Maharashtra, South Interior Karnataka and Kerala during first half of the week.
- Widespread/fairly widespread rainfall occurred over Uttarakhand, Himachal Pradesh during second half of the week and over Jammu & Kashmir during last two days of the week.
- The rainfall was subdued over remaining parts of the country where isolated/scattered rain/thundershower occurred during many days of the week.

## **RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 15<sup>TH</sup> AUGUST, 2007)**

Rainfall was excess/normal in 15, deficient/scanty in 21 out of 36 meteorological sub-divisions (Actual: 59.6 mm, Normal: 62.7 mm and Departure: -5%).

## **CUMULATIVE SEASONAL RAINFALL (1ST JUNE TO 15<sup>TH</sup> AUGUST, 2007)**

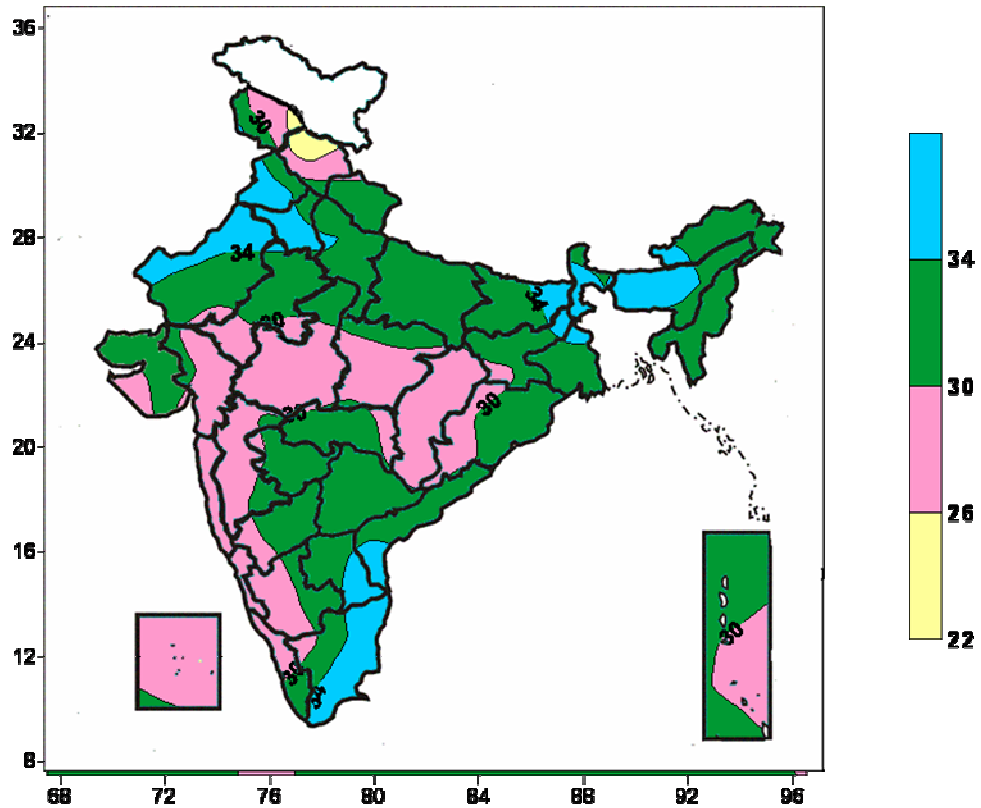
Rainfall was excess/normal in 30 and deficient in 6 out of 36 meteorological sub-divisions. (Actual: 625.3 mm, Normal: 592.8 and Departure: +5%).

## **OUTLOOK FOR THE WEEK ENDING ON 22<sup>ND</sup> AUGUST, 2007.**

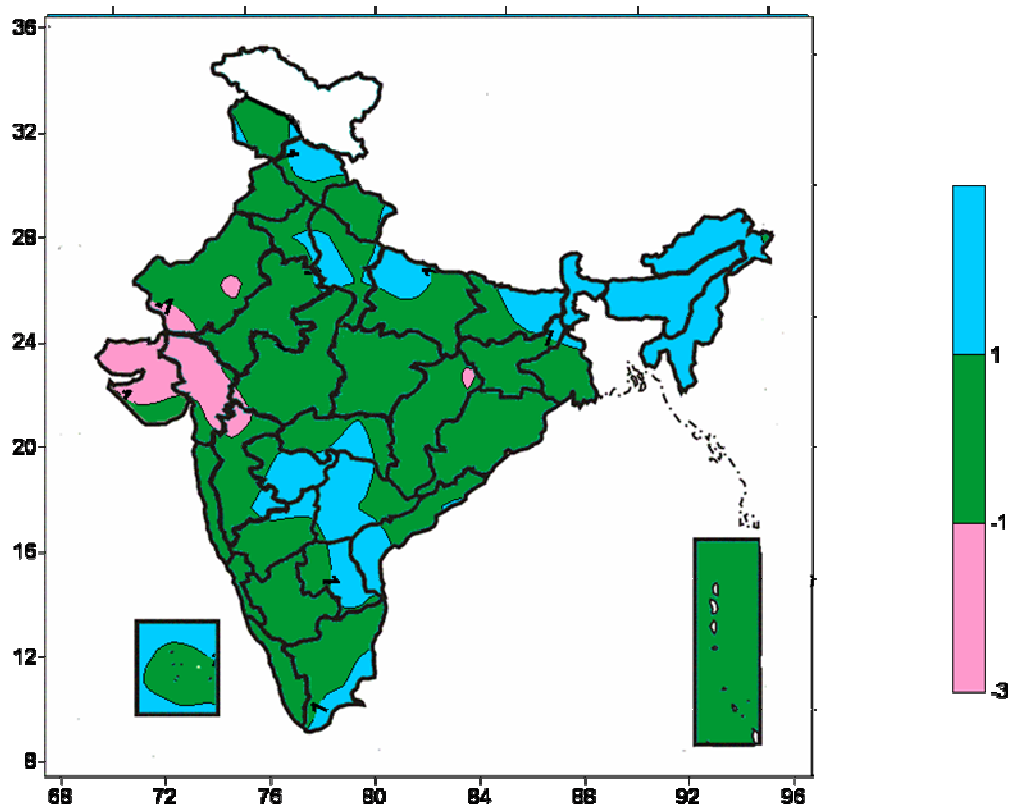
- Widespread rainfall with isolated heavy to very heavy falls are likely over northeastern States during first half of the week and decrease thereafter.
- A low pressure area is likely to form over north Bay of Bengal and adjoining north Orissa-West Bengal coast around 18th August. Under its influence, rainfall activity is likely to increase over Orissa, Chhattisgarh and north Andhra Pradesh during 18th-20th August.
- Subdued rainfall activity is likely over northwest India and remaining parts of Peninsular India.

## Contour maps for the week ending 15<sup>th</sup> August, 2007

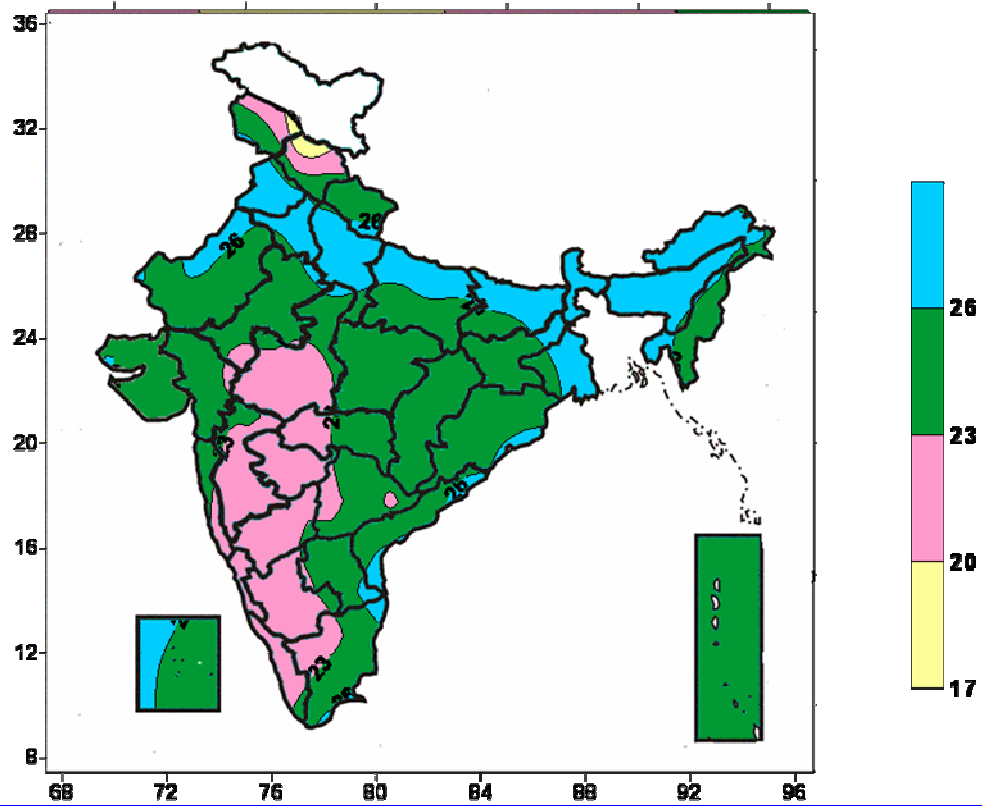
Actual Mean Maximum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 15.08.07



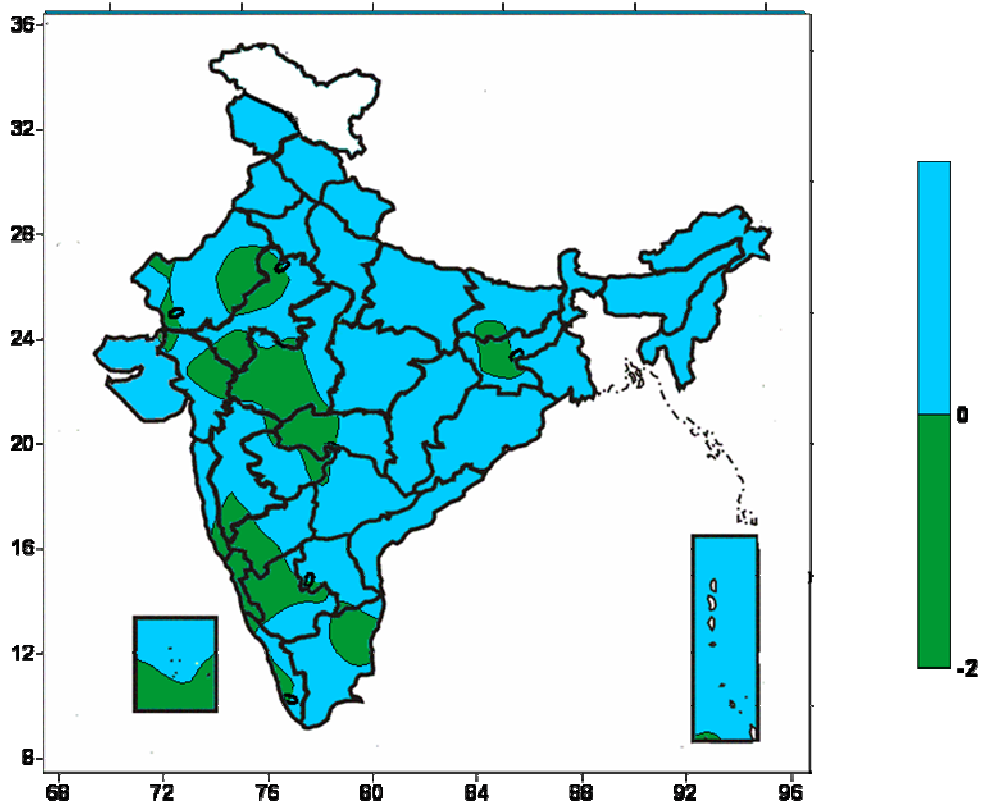
Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 15.08.07



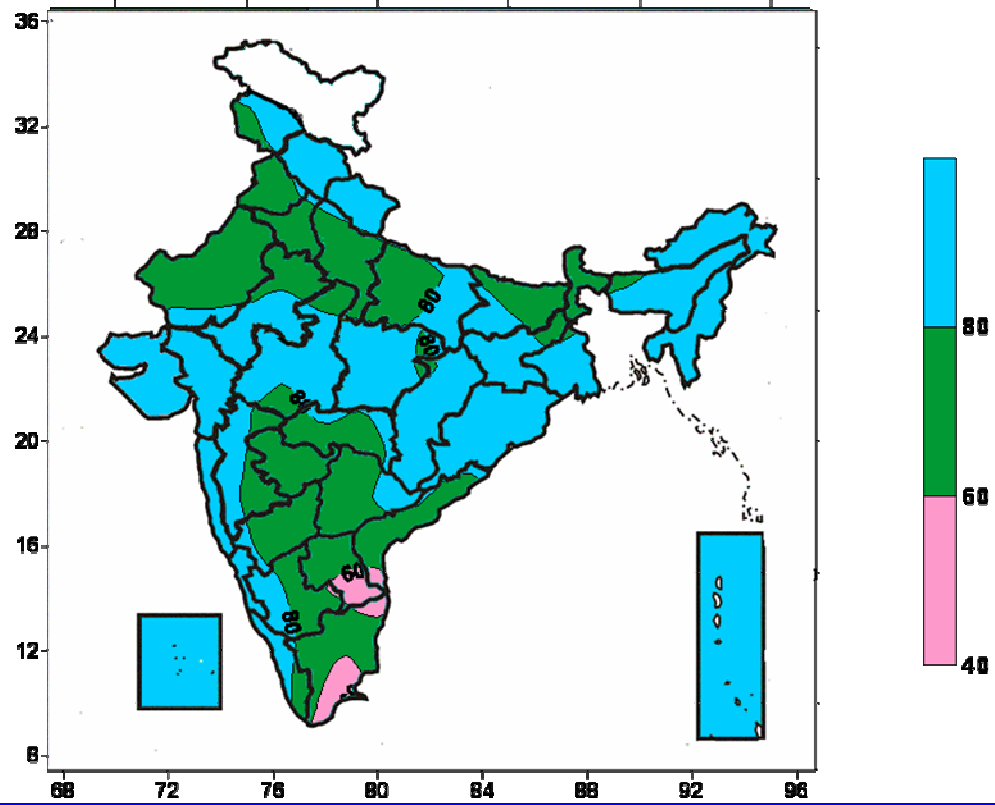
**Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 15.08.07**



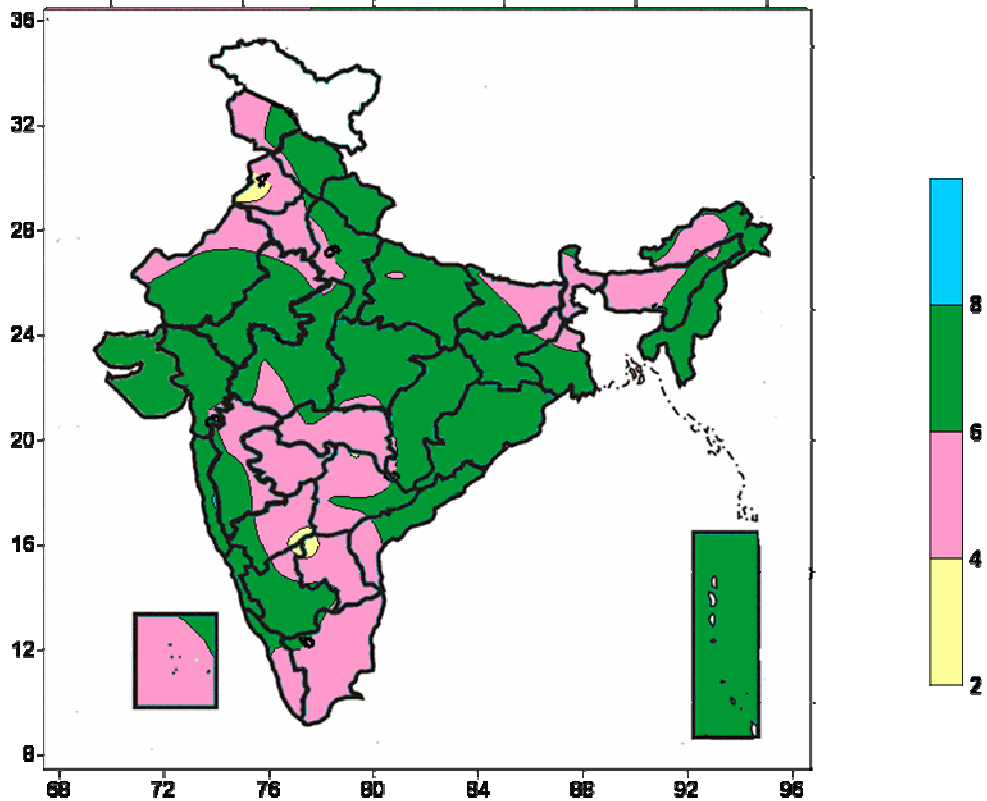
**Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 15.08.07**



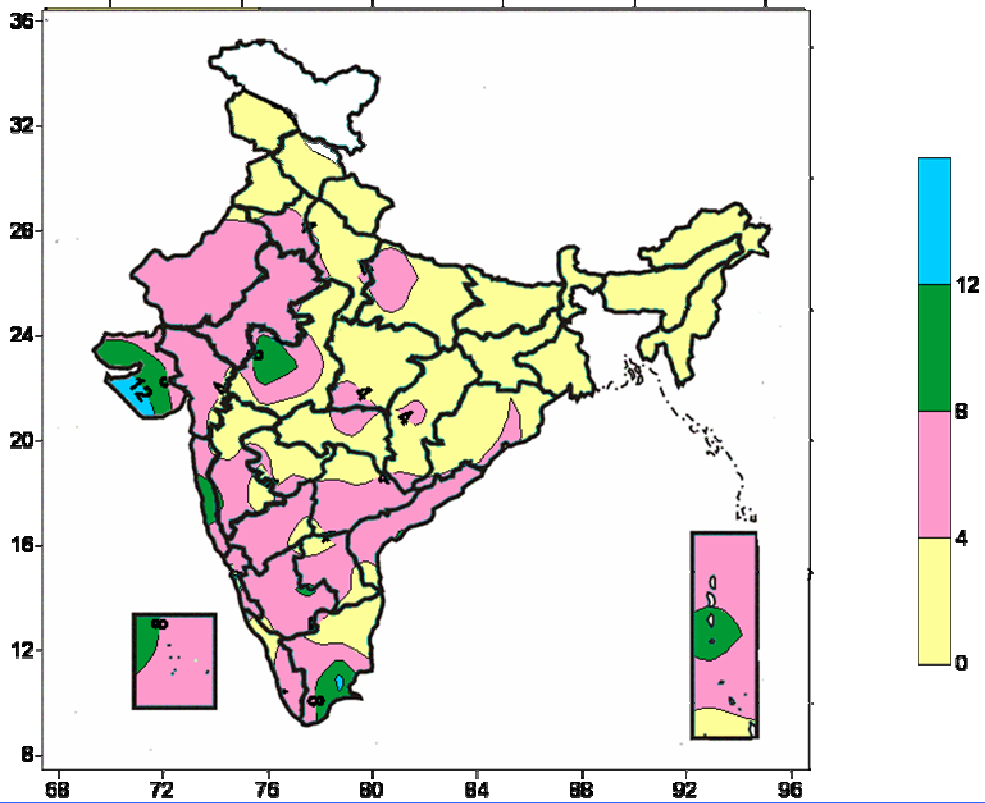
Relative Humidity (%) over India for the week ending 15.08.07



Cloud amount (okta) over India for the week ending 15.08.07



### Wind speed (knots) over India for the week ending 15.08.07



### Desert Locust Forecasting



Station Name	Rainfall (mm)						
	09.08.07	10.08.07	11.08.07	12.08.07	13.08.07	14.08.07	15.08.07
Amritsar	0	0	0	0	0	0.4	0
Barmer	0	0	0	0	0	0	0
Sriganganagar	1	1	0.9	0.6	0	0	0
Jaisalmer	0	0	0	0	0	0	0
Kota	10.8	0.8	0	0	0	0	1.1
Deesa	26.7	4.0	6.1	5.2	2.6	0.5	0
Churu	0	6.8	0	0	0	0	0

Small-scale breeding is in progress in desert areas of the **Indo-Pakistan** border. Under the prevailing weather conditions, there is chance of slight increase in the locust number. All efforts should be made to monitor the situation closely and carefully and take appropriate plant protection measures.



## CROP – STATE – STAGE

### Delhi

Vegetables	Early sown summer vegetable crops	Rice	Arhar	Maize
Nursery sowing/Transplanting	Early Vegetative / vegetative	Tillering	Vegetative/flowering	Vegetative
<b>Bajra</b>				
Vegetative				
Haryana				
Sugarcane	Horticultural crops	Cotton	Paddy	
Vegetative	Vegetative	Vegetative	Early vegetative	
<b>Kharif Groundnut</b>	<b>Kharif Pulses</b>			
Vegetative	Flowering			

### Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Apple	Rice	Maize
Vegetative Flowering/Fruiting— Ladies finger Nursery sowing- Cabbage, Cauliflower	Tuber formation	Maturing/Harvesting	Transplanting Early transplanted – Early vegetative/ tillering	Knee high / Vegetative

### Jammu & Kashmir

Vegetable crops	Rice		Maize	Pulses
Fruiting/harvesting—in Kashmir Div.	Vegetative – Jammu Div. Boot leaf - Kashmir Div.		Vegetative- Jammu Div. Flowering- Kashmir div.	Vegetative

### Punjab

Sugarcane	Sunflower	Horticultural crop	Cotton	Paddy
Vegetative	Harvesting	Vegetative	Vegetative	Early vegetative
<b>Kharif Groundnut</b>	<b>Kharif pulses</b>			
Vegetative	Flowering			

### Rajasthan

<b>Kharif crops(Bajra, Maize, Guar, Moong, Moth bean, Urd)</b>		Zaide Fodder	Cotton	
Vegetative		Vegetative	Vegetative	

### Uttar Pradesh

Sugarcane	<b>Kharif Vegetables</b>	Mango	<b>Kharif Rice</b>	
Early vegetative	Sowing/Transplanting	Harvesting	Early vegetative	
<b>Kharif oilseeds</b>	<b>Early sown Kharif oilseeds</b>			
Sowing	Early vegetative			

### Uttarakhand

Apple	Ginger	Sugarcane	Potato	<b>Kharif Rice</b>
Pre-Maturity/maturity	Rhizome formation	Tiller formation	Tuber growth	Seedling /vegetative
<b>FingerMillet/ Amranthus</b>	<b>Mango/Litchi</b>			
Vegetative	Seedling			

### Assam

Vegetables	Jute	Maize	Sugarcane	
Harvesting	Harvesting	Harvesting	Vegetative	
<b>Arhar</b>	<b>Sali rice</b>	<b>Black Gram &amp; Green Gram</b>		
Vegetative	Transplanting/Early tillering	Land preparation and Sowing		

### Arunachal Pradesh

	Ginger	Millet	Jhum Paddy	Maize
	Rhizome formation	Flowering	Vegetative	Maturity
<b>WRC Rice</b>				
Vegetative				

**Bihar**

<b>Summer Vegetables</b>	<b>Maize</b>	<b>Arhar</b>	<b>Sugarcane</b>	<b>Kharif rice</b>
Maturity	Cob formation / Maturity	Early vegetative	Vegetative	Transplanting

**Jharkhand**

<b>Kharif rice</b>	<b>Ragi</b>	<b>Vegetables (Tomato, Brinjal, Bhendi)</b>	<b>Upland crops (Maize, arhar, groundnut, soybean, urad, rice and ragi)</b>
Transplanting Early sown – Early vegetative	Transplanting	Sowing Early sown – Early vegetative	Early vegetative

**Sikkim**

<b>Maize</b>	<b>Orange</b>	<b>Vegetables</b>	<b>Large Cardamom</b>	<b>Ginger</b>
Harvesting	Fruiting New planting in some places	Maturity/Harvesting	Capsule maturity/Early harvesting	Flowering
<b>Rice</b>				
Tillering				

**West Bengal**

<b>Sugarcane</b>	<b>Jute</b>	<b>Aus rice</b>	<b>Kharif Groundnut</b>	<b>Arhar</b>
Vegetative	Vegetative	Flowering/grain formation	Early vegetative/vegetative	Early vegetative/vegetative
<b>Aman rice</b>	<b>Early transplanted Aman rice</b>			
Land preparation sowing/Transplanting	Early vegetative/early tillering			

**Chattisgarh**

<b>Sugarcane</b>	<b>Black gram, Green Gram &amp; Groundnut</b>	<b>Soybean</b>	<b>Kharif Rice</b>	<b>Maize</b>
Vegetative	Early vegetative/Vegetative	Early vegetative/Vegetative	Sowing/ Transplanting Early sown- Early vegetative/Early tillering	Vegetative

**Gujarat**

<b>Sugarcane</b>	<b>Kharif Rice</b>	<b>Early transplanted Rice</b>	<b>Kharif Groundnut</b>	<b>Kharif Cotton</b>
Vegetative	Transplanting	Early tillering/Tillering	Vegetative	Vegetative
<b>Kharif Maize</b>	<b>Kharif Bajra</b>	<b>Castor</b>		
Vegetative	Vegetative/Tillering	Land preparation and Sowing		

**Maharashtra**

<b>Sugarcane Preseasonal (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Sugarcane (Suru) (Madhya Maharashtra, Marathwada and Vidarbha)</b>	<b>Irrigated cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Rice (Konkan)</b>	<b>Kharif Rice (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Active growth	Early vegetative/active growth	Vegetative growth/Flowering	Early vegetative/Tillering	Early tillering Kolhapur –Tillering
<b>Kharif Jowar (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Bajra (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Groundnut (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Sunflower (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Green Gram (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>
Early vegetative/Vegetative	Vegetative growth/Flag leaf initiation	Early vegetative/Vegetative	Early vegetative/Vegetative growth	Vegetative/Flowering
<b>Kharif Cotton (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Tur (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Kharif Soyabean (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>		

Early vegetative/Vegetative	Early vegetative	Vegetative /Flowering		
<b>Madhya Pradesh</b>				
<b>Sugarcane</b>	<b>Kharif crops(Soybean, maize, urd and jowar)</b>	<b>Kharif rice</b>		
Vegetative	Vegetative	Active tillering		
<b>Orissa</b>				
<b>Kharif vegetables</b>	<b>Kharif rice</b>	<b>Sugarcane</b>	<b>Jute</b>	<b>Arhar</b>
Raising nursery	Early vegetative	Vegetative	Vegetative	Early vegetative
<b>Andhra Pradesh</b>				
<b>Kharif Rice</b>	<b>Kharif Maize</b>	<b>Kharif Cotton</b>	<b>Kharif Groundnut</b>	<b>Kharif Black gram, Green gram</b>
Transplanting	Vegetative	Vegetative	Vegetative	Vegetative
<b>Karnataka</b>				
<b>Sugarcane (Ratoon crop)</b>	<b>Kharif Maize /Sunflower</b>	<b>Groundnut</b>	<b>Jowar</b>	
Grand growth	Late Vegetative/Flowering	Peg formation	Milking	
<b>Kerala</b>				
	<b>Rubber</b>	<b>Virippu rice</b>	<b>Early sown Virippu Rice</b>	
	Tapping	Flowering/Ear head formation	Maturity	
<b>Tamil Nadu</b>				
<b>Rice (Kuruvai/Samba)</b>	<b>Cotton</b>	<b>Sugarcane (Early, Mid and Late season)</b>	<b>Maize</b>	<b>Groundnut/Black gram/Green gram/Red gram</b>
Samba- Transplanting Kuruvai - Tillering	Picking	Grand growth Late Sugarcane- Harvesting	Sowing	Sowing
<b>Jowar/Bajra/Samai</b>				
Sowing				

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