



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

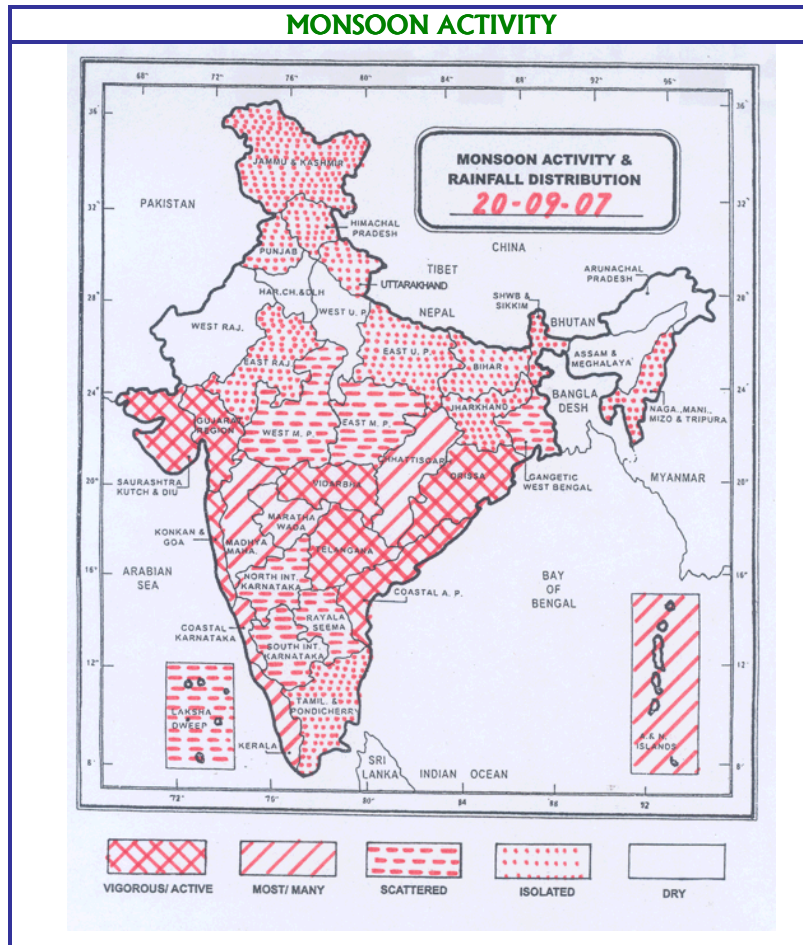
Issued by

Agricultural Meteorology Division, India Meteorological  
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**Thursday, 20<sup>th</sup> September, 2007**

(For the period 20<sup>th</sup> to 24<sup>th</sup> September, 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 vigorous over the State on 17<sup>th</sup> & 19<sup>th</sup> September and active on 18<sup>th</sup> September. Rain occurred at most places on 17<sup>th</sup>, 18<sup>th</sup> & 19<sup>th</sup> September.
- Rain / thundershowers are likely at a few places over the State.

#### Advisories

- As sufficient rainfall occurred in all the districts over the state during last week, postpone irrigation to plantation crops viz., coconut, arecanut, rubber and banana. Drainage facilities may be provided to prevent water logging.
- Continue intercultural operations, application of fertilizers and pesticides in plantation crops on a non rainy day.

- Attack of rhinoceros beetle, red palm weevil and coried bug is reported in coconut. Fill the leaf axils with 25 gm. Sevidol 8 G and fine sand 200 gm to control rhinoceros beetle. Use Pheromon trap @ 1 per two ha to monitor and destroy red palm weevil. Spray carbaryl @ 4 gm per litre of water to control coried bug. Spraying of chemicals may be undertaken on a non rainy day.
- Attack of bunchy top is reported in banana. Apply Phorate 10 G @ 25gm or Cabofuran 3 G @ 20gm per pit around the rhizome on a non rainy day.
- Attack of pollu beetle is reported in pepper. Spray Quinalphos @ 0.05% to control pollu beetle on a non rainy day.
- Continue land preparation for transplanting of *mundakkan* rice. Lime application @ 350 kg per ha. may be done during ploughing. Undertake transplanting and apply pre-emergence herbicide Butachlor @ 1 litre/ha on a non rainy day to control weeds.

### **Tamilnadu**

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

#### **Advisories**

- As there was sufficient rainfall in many of the districts except in Coimbatore, Dindigul, Erode, Karur, Madurai, Namakkal, Perambalur, Pudukkottai, Sivagangai, Theni, Trichy, Tuticorin and Virudunagar districts, postpone irrigation to sugarcane and early sown maize, jowar, bajra and pulses. Apply irrigation in the above mentioned districts as there was no significant rainfall during last week.
- Monitor sugarcane for stem borer and if the pests population crosses ETL, release *Trichogramma* egg parasite @ 5cc/acre on a non rainy day to control the pest.
- 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. Continue harvesting late sugarcane.
- Continue sowing rainfed millet crops like jowar, bajra and samai. Undertake seed treatment with *Azospirillum* before sowing.
- Continue picking matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.

### **Karnataka**

- On 17<sup>th</sup> September, monsoon was active over Coastal Karnataka and North Interior Karnataka. Rainfall occurred at many places over South Interior Karnataka. On 18<sup>th</sup> September, monsoon was vigorous over Coastal Karnataka and North Interior Karnataka and active over South Interior Karnataka. On 19<sup>th</sup> September, monsoon was vigorous over North Interior Karnataka. Rainfall occurred at most places over Coastal Karnataka and at a few places over South Interior Karnataka.
- Rain/thundershowers are likely at a few places over the State.

#### **Advisories**

- As sufficient rainfall occurred in all the districts over the State during last week, postpone irrigation to summer sugarcane, *Kharif* jowar, maize, cotton, groundnut and sunflower. Drainage facilities may be provided to prevent water logging.
- Continue intercultural operations, application of fertilizers and pesticides to *kharif* jowar, maize, cotton, groundnut and sunflower on a non rainy day.
- Monitor groundnut for red hairy caterpillar. Undertake plant protection measures on a non rainy day to control the pest at the early stage.

- Monitor sugarcane for white woolly aphids and release predators viz., *Dipha* sp. on a non rainy day, adopt wider spacing, inter-cropping with soyabean and pulses of short duration to control the pest.

### **Andhra Pradesh**

- South West monsoon was vigorous over Telangana on 17<sup>th</sup> & 18<sup>th</sup> September and over Rayalaseema on 15<sup>th</sup> & 18<sup>th</sup> and active over Coastal Andhra Pradesh on 15<sup>th</sup> & 17<sup>th</sup> to 19<sup>th</sup> September over Telangana on 15<sup>th</sup>, 16<sup>th</sup> & 19<sup>th</sup> September and over Rayalaseema on 16<sup>th</sup>, 17<sup>th</sup>, 19<sup>th</sup> September. Rain occurred at many places over Coastal Andhra Pradesh on 13<sup>th</sup> September and at a few places elsewhere over the State during the week.
- Rain/thundershowers are likely at many places over North Andhra Pradesh and at a few places over rest region of the State.

**Warning:** Isolated heavy to very heavy rainfall is like to occur over North Andhra Pradesh during next 48 hours.

### **Advisories**

- Postpone irrigation to *kharif* crops viz., groundnut, cotton, maize, green gram and black gram as sufficient rainfall occurred at most of the districts in the state except in Vizianagaram and Medak. Apply irrigation in the Medak district as there was no significant rainfall occurred during last week Postpone irrigation in Vizianagaram district as rainfall likely to occur at many places.
- Arrange for drainage facilities in north Andhra Pradesh as isolated heavy to very heavy rainfall is like to occur during next 48 hours.
- Monitor rice for gall midge and leaf folder. To control gall midge apply Carbofuran 3G @ 10 kg per acre. To control leaf folder, spray Monocrotophos @ 1.6 ml or Chloropyriphos @ 2.5ml per litre of water. Spraying of chemicals may be undertaken after spells of rain.
- Monitor cotton for sucking pests and *Spodoptera* and if the damage crosses ETL, spray Monocrotophos @ 1.6ml or Acephate @ 1.5g or Imidacloprid @ 0.4 ml per litre of water to control sucking pests (thrips). To control early stage larvae of *Spodoptera*, spray Chloropyriphos @ 2.5ml or Thodocarb @ 1.5 ml of Carbaryl @ 3g per litre of water. Spraying of chemicals may be undertaken after spells of rain in north Andhra Pradesh and on a non rainy day in rest of the region.
- Undertake earthing up in *kharif* crops after spells of rain in north Andhra Pradesh and on a non rainy day in rest of the region to keep the field weed free.
- Monitor groundnut for Tikka leaf spot. To control tikka leaf spot in groundnut, spray Carbendazim @ 1g + Mancozeb @ 2.5 g or Hexaconazole @ 2ml per litre of water. Spraying of chemicals may be undertaken after spells of rain in north Andhra Pradesh and on a non rainy day in rest of the region.

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

#### **Assam**

- Light to moderate rain occurred at a few places on 17<sup>th</sup> September and at isolated places on 18<sup>th</sup> & 19<sup>th</sup> September with isolated rather heavy to heavy falls on 18<sup>th</sup> September and isolated rather heavy falls on 17<sup>th</sup> September over the State. Generally cloudy sky on 17<sup>th</sup> September & 18<sup>th</sup> September and mainly clear sky on 19<sup>th</sup> September.
- Rain/ thundershowers are likely at isolated places over the State.

#### **Advisories**

- *Sali* rice and early winter vegetables are 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 receding of flood water second dose of urea @ 3kg per bigha should be top dressed in the field.

- Harvest already matured crop of maize. Harvesting 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.
- Start harvesting matured crop of sugarcane.
- 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. 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 where *Sali* rice could not be cultivated due to shortage of seedling damaged by flood water and also in uphill land. 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 for more yields.
- In early sown black gram and green gram, monitor the crops for aphids, jassids and flea beetle attack. Undertake spraying of Malathion 50 EC @ 2 ml/litre of water.

### **Arunachal Pradesh**

- Sky remained partly cloudy over the State during the period. Light to Moderate rain /thundershowers occurred at many places on 17<sup>th</sup> September, light rain occurred at one or two places on 19<sup>th</sup> September and weather remained dry on 18<sup>th</sup> September over the State.
- Rain/ thundershowers are likely at isolated places over the State.

### **Advisories**

- As there was no significant rainfall during last week and rain/ thundershowers are likely at isolated places over the State for the next three days, apply irrigation to millet, *jhum* paddy and ginger crops.
- Continue weeding, spraying and intercultural operations in millet, *jhum* paddy and ginger crops.
- Undertake surveillance of rodent outbreak in *jhum* paddy and millet.
- Start land preparation and sowing of potato and wheat.
- Start land preparation and nursery sowing of rabi vegetables like Cauliflower, Chinese cabbage, Carrot, Knol-khol, Lettuce, Methi, Palak, Peas, Radish, Tomato, Turnip etc.

### **Bihar**

- Light to moderate rain occurred at most places on 16<sup>th</sup> September and rest days light to moderate rainfall occurred at isolated places.
- Rain/thundershowers are likely at isolated places over the State.

### **Advisories**

- Apply irrigation to arhar (early sown) and sugarcane as there was no significant rainfall in most of the districts during last week and rain/thundershowers is likely to occur at isolated places only during next 3 days.
- Sowing of raddish, early cauliflower, chillies, & tomato may be continued.
- Continue sowing of early variety of potato like Kufi, Ashoka or Kufri Chandramukhi or Rajendra, Aloo-3.
- Continue sowing of mung, urd and arhar.
- Top dressing of nitrogen @ 20 Kg/ha after weeding to rice can be done.
- Undertake sowing of castor as mono crop or mixed crop.

## **Jharkhand**

- Rain or Thunder shower occurred at isolated places.
- Rain/thundershowers are likely at isolated places over the State.

### **Advisories**

- As there was no significant rain during last week and rain/thundershowers are likely at isolated places over the State, apply irrigation to vegetables, maize, arhar, groundnut, soybean and urad.
- Monitor rice for gundhi bug. If damage exceeds ETL, spray 25 kg. Chlorpyrifos dust per hectare.
- Monitor maize 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 and do earthing.
- Topdressing of urea @ 75 kg/ha for maize may be done.
- Continue land preparation and sowing of pea and potato.

## **Sikkim**

- Sky remained generally cloudy during the period. Moderate to near heavy rain occurred at most places over East Sikkim on 16<sup>th</sup> September, moderate rain on 13<sup>th</sup> and 14<sup>th</sup> September and very light to light rain on rest days of the week. Rain fall was deficient over East Sikkim during the period.
- Rain/thundershowers are likely at isolated places over the State.

### **Advisories**

- As there was no significant rainfall during last week and rain/thundershowers are likely at isolated places over the State for the next three days, apply irrigation to orange and ginger.
- Maintain water level of 3-4 cm in rice to enable maximum tillering.
- Complete harvesting matured vegetable crops and maize.
- Continue harvesting 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.
- Start land preparation and nursery sowing of *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root.

## **West Bengal**

- Rainfall occurred at many places over SHWB on 17<sup>th</sup> and 19<sup>th</sup> September; at a few places on 18<sup>th</sup> September with heavy rain at isolated places over SHWB. Rainfall occurred at isolated places over GWB on 17<sup>th</sup> and 18<sup>th</sup> September.
- Rain/ thundershowers are likely at many places over coastal West Bengal and isolated over rest region of the State.

### **Advisories**

- Postpone irrigation to sugarcane, groundnut and arhar crops as there was excess rainfall in many of the districts except in Howrah, Nadia and Burdwan in Gangetic West Bengal and in Malda in Sub Himalayan west Bengal. Apply irrigation in the above districts as there was no significant rainfall during last week.
- Maintain 3 – 5 cm water in the field of *aman* rice. Undertake top dressing of fertilizers. Fertilizer application may be undertaken after current spells of rain in coastal West Bengal.
- Undertake intercultural operation, application of fertilizer and plant protection measures in sugarcane, groundnut and arhar after current spells of rain in coastal West Bengal.

- Continue harvesting jute.

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

### Gujarat

- Rainfall occurred at most places over South Gujarat region, Daman, Dadra Nagar Haveli on 13<sup>th</sup> September. Rainfall occurred at isolated places over North Gujarat region, Saurashtra, Diu on 19<sup>th</sup> September .
- Rain/thundershowers are likely at many places over South Gujarat region and at a few places over Saurashtra during next 48 hours and increase there after and at a few places over North Gujarat region and isolated over rest region of the State.

**Warning:** Isolated heavy to heavy rainfall is likely over South Gujarat region during next 48 hours.

### Advisories

- Postpone irrigation to sugarcane, *kharif* groundnut, *kharif* cotton, *kharif* bajra, castor and *kharif* maize as rain/thundershowers are likely at many places over south Gujarat during next three days.
- Provide drainage facilities in south Gujarat as isolated heavy to very heavy rainfall is like to occur during next 48 hours.
- As there was no significant rainfall during last week in the State except in Dangs, Diu and Daman and rain/thundershowers are likely at a few places over the State during next three days, apply irrigation to the crops. Postpone irrigation in the above districts as there was sufficient rainfall during last week.
- Maintain 5-6 cm water in *kharif* rice field.
- If *kharif* groundnut appears yellowish, spray 100 grams hirkasi (Ferolus sulphate) + 10 grams lemon aeck dissolved in 10 liter of water / ha by making a solution in 500 liters of water to the crop. Spraying of chemicals may be undertaken after spells of rain in south Gujarat and on a non rainy day in north Gujarat and Saurashtra.
- In some places cotton crop infested with mealy bug. Monitor the crop and if damage exceeds ETL, to control the pest spray Methyl dimeton 25 EC @ 10 ml or Phosphamidon 85 EC @ 5 ml or Dimethoate 30 EC @ 10 ml in 10 liter of water. Spraying of chemicals may be undertaken after spells of rain in south Gujarat and on a non rainy day in north Gujarat and Saurashtra.
- Weeding, intercultural operation and top dressing of Nitrogen may be done in *kharif* maize, cotton, bajra and groundnut crops. Intercultural operations and application of fertilizers may be undertaken after spells of rain in south Gujarat and on a non rainy day in north Gujarat and Saurashtra.

### Chhattisgarh

- Rainfall occurred at one or two places on 14<sup>th</sup> September in the State.
- Rain/thundershowers are likely to occur at many places over the State.

### Advisories

- Postpone irrigation to sugarcane and maize and also to black gram, green gram, groundnut and soybean as rain/ thundershowers are likely to occur at many places over the State during next three days.
- Maintain 3 – 5 cm water in *kharif* rice at tillering stage. Undertake top dressing of nitrogen after spells of rain.
- Also continue intercultural operation, application of fertilizer and plant protection measures to the standing crops after spells of rain.
- When the sugarcane crop attains a height of 5 – 6 feet, 4 – 5 plants may be tied together to prevent lodging from gusty wind.

- Attack of stem borer in rice is reported. Monitor the crop for stem borer, if the damage exceeds ETL, spray Chlorpyrifos @ 1000 ml / hectare just after the appearance of first dead heart after spells of rain. Also monitor the crop for gall midge. Undertake spraying of Imidachloprid @ 100 ml per hectare in 400-500 ltr of water or Monochrotophos 1.5 ltr per hectare or Carbaryl 50 WP 2kg per hectare in 400-500 ltr of water after spells of rain.
- Monitor vegetable crops for stem rot and undertake spraying of Bavistin @ 1% after spells of rain to prevent crop damage.

### **Maharashtra**

- Monsoon was vigorous in Konkan & Madhya Maharashtra on 19<sup>th</sup> & active in West Vidarbha on 18<sup>th</sup> September. Rain occurred at most places in South Konkan, at many places in Marathwada & West Vidarbha, at a few places in North Konkan, Madhya Maharashtra and at isolated places in East Vidarbha.
- Rain/thundershowers are likely to occur at many places over Konkan, Madhya Maharashtra & at a few places over Marathwada during next 48 hours & increase thereafter. Rain/thundershowers are also likely to occur at many places over Vidarbha.

**Warning:** Isolated heavy to very heavy rainfall is likely to occur over Konkan & Madhya Maharashtra during next 48 hours.

### **Advisories**

- Postpone irrigation to the crop as rain/thundershowers are likely many places over Konkan, Madhya Maharashtra, Marathwada and Vidarbha during next three days.
- Arrange for drainage facilities in Konkan and Madhya Maharashtra as isolated heavy to very heavy rainfall is likely to occur during next 48 hours.
- Maintain 3 – 5 cm water in the rice field wherever crops are at tillering stage.
- Second installment of 40 kg Nitrogen/ha may be applied through Ammonium sulphate in *kharif* rice, if Urea DAP briquette dose has not been given on a non rainy day.
- A dose of 400 to 500 kg Gypsum/ha may be applied during flowering stage in groundnut.
- To increase pollination at flowering stage, hand covered with woolen cloth may be moved 3 to 5 times on floral disc smoothly day after day early in the morning. Spray 2 gm Borax in one liter only on flowers at the time of opening of florets on a non rainy day in *kharif* sunflower.
- Mild incidence of white woolly aphids in Kolhapur & Pune division in sugarcane (pre-seasonal & suru, sap sucking insects in Aurangabad, Amravati and Latur, aphids & jassids in Amravati & Nagpur and aphids, jassids, thrips in Nashik division in irrigated cotton, blast, leaf roller, blue beetle and stem borer in Konkan & blast in Kolhapur & Nagpur division in *kharif* rice and leaf caterpillar in Nashik, Aurangabad, Pune, Nagpur Amravati division & leaf roller in Kolhapur, Nagpur division in *Kharif* soyabean 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 soybean for Leaf eating caterpillar & if exceeds economic threshold level, spray 25 EC, Quinolphos 1000 ml or 36 EC, Monocrotophos 700 ml / ha in 500 liters water.
- Monitor soybean for Leaf roller & if exceeds economic threshold level, spray 5 % Neem extract or if infestation exceeds economic threshold level, spray Dimethoate 10 ml or 50 % Carbaril water soluble powder 40 gm or Monocrotophos 15 ml /ha in 500 liters water.
- Undertake intercultural operation and apply fertilizer and plant protection measures after current spells of rain in Konkan, Madhya Maharashtra, Marathwada & Vidarbha

### **Madhya Pradesh**

- Rainfall occurred at a few places in South East M.P. on 18<sup>th</sup> September, South and North West M.P. on 19<sup>th</sup> September and at isolated places in East M.P. on 17<sup>th</sup> September, North East and South West M.P. on 18<sup>th</sup> September and North East M.P. on 19<sup>th</sup> September. Mainly dry weather prevailed over rest of the State for remaining period.
- Rain/thundershowers are likely at a few places over the State.

### **Advisories**

- As there was no significant rainfall during last week and rain/thundershowers are likely at isolated/few places only 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. Intercultural operations and fertilizer application may be undertaken on a non rainy day in south Madhya Pradesh.
- To protect soybean from blue beetle and girdle beetle, spray Endosulphon 35 EC 1000-1250 ml per hectare or Trizophos 40EC 800 ml per hectare or spray Endosulphon 4% or Quinolphos 1.5% dust @20-25 Kg per hectare. Spraying of pesticides may be undertaken on a non rainy day in south Madhya Pradesh.
- Monitor rice for stem borer and if the damage crosses ETL, spray Methyl parathion @ 350 ml/ha to control the pest. Spraying of pesticide may be undertaken on a non rainy day in south Madhya Pradesh.
- Monitor maize for stem borer and if the damage crosses ETL, spray Carbaryl @ 500 ml/ha to control the pest. Spraying of pesticide may be undertaken on a non rainy day in south Madhya Pradesh.

### **Orissa**

- A low pressure area was formed over West central Bay off Andhra Pradesh coast on 18<sup>th</sup> September and became well marked low pressure area towards the evening of the same day and persisted up to 19<sup>th</sup> September. Rain fall occurred at a few places over the State on 18<sup>th</sup>, 19<sup>th</sup> September and at isolated places on 17<sup>th</sup> September.
- Rain/thundershowers are likely at many places over the State.

**Warning:** Isolated heavy to very heavy rainfall is likely over the state during next 48 hours.

### **Advisories**

- As rain/thundershowers are likely at many places over the state for the next three days with isolated heavy rainfall during next 48 hrs, postpone irrigation to the crops. Provide adequate irrigation facilities to avoid water logging due to heavy rainfall.
- Monitor sugarcane for top shoot borer and if the damage exceeds ETL, undertake spraying of Monocrotophos or Triazophos or Prefonophos @ 400 ml/acre after current spells of rain.
- Monitor rice for blast and sheath blight. To control blast spray Tricyclazole @ 1gm/ litre of water or Ediphenophus @ 1 ml /litre of water and to manage sheath blight spray Validamycin @ 2 ml per litre of water or Hexaconazole @ 1ml/litre of water after current spells of rain.



- Monitor vegetables for fruit fly. Prepare poison bait by mixing 1ml Malathion & 10gms of Gur / litre of water and place in the field to contro the pest.
- Undertake sowing of moong and urd. Select P.D.M.-54, PDM-11, TARM-1 varieties in moong, and T-9, PU-19, PU-30 in urd. Apply 8 Kg N, 16Kg P & 8 Kg K/ha as basal. Apply fertilizers after current spells of rain.

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

### **Punjab**

Isolated rain/thundershowers are likely over the State.

#### **Advisories**

- As there was no significant rainfall in most of the districts during last week and rain/thundershowers are likely at isolated places over the State for the next three days, apply irrigation to sugarcane, cotton, pulses (in pod formation stage), groundnut and Horticultural crops.
- Maintain 5 cm standing water in rice field.
- Attack of white fly, and spotted bollworm in cotton and leaf roller in rice has been observed. Farmers are advised to monitor the crop, if exceeds economic threshold level, to control white fly spray Trizophos/ E-Mite 400ml per acre.
- Continue planting of autumn sugarcane. Undertake sett treatment with *Azotobacter* before planting.
- Start picking of cotton and harvesting of pulses on bright sunny days.
- Continue sowing of toria.

### **Haryana**

- Weather remained mainly dry during the period.
- Isolated rain/thundershowers are likely over the State

#### **Advisories**

- As there was no significant rainfall in most of the districts during last week except in Jhajar and Rewari and rain/thunder showers are likely at isolated places over the State for the next three days, apply irrigation to sugarcane, cotton, pulses(in pod formation stage), groundnut and Horticultural crops. Postpone irrigation in the above districts as there was sufficient rainfall during last week.
- Incidence of thrips on cotton, white fly on moong, and *pyrilla*, shoot borer in sugarcane reported below ETL.
- Monitor the crops & if exceeds economic threshold level, spray 250ml Rogor 30EC per hectare for effective control of cotton thrips, Metasystox 25EC 1ml/l of water to control white fly in moong, and spray 600 ml Endosulfan 50 EC in 600 liter of water/acre to control *pyrilla* in sugarcane.
- Continue sowing of toria.
- Continue planting of autumn sugarcane. Undertake sett treatment with *Azotobacter* before planting.
- Start picking of cotton and harvesting of pulses on bright sunny days.

### **Rajasthan**

- Rain / thundershower occurred at a few places Bikaner division on 17<sup>th</sup> September and at isolated places in Kota division on 18<sup>th</sup> September and weather remained mainly dry in remaining divisions in rest days.

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

#### **Advisories**

- As there was no significant rainfall in most of the districts during last week and rain/thundershowers are likely at isolated places only for the next three days, apply irrigation to *kharif* crops viz., bajra, jowar, maize, guar, moong, moth bean and urd.
- Undertake intercultural operations in *kharif* crops to keep the field weed free.
- Monitor *desi* and *American* cotton for sucking pests. If the pests population crosses ETL, spray Endosulphan @ 1.25 liters/ha to control the pest.

#### **Uttar Pradesh**

- Rain occurred at isolated places in Varanasi division and weather was mainly dry in remaining divisions of U.P on 17<sup>th</sup> September. Rain occurred at isolated places in Gorakhpur, Varanasi division and weather was mainly dry in remaining divisions of U.P. on 18<sup>th</sup> September. Rain occurred at few places in Lucknow division and isolated places in Allahabad, Faizabad divisions and weather was mainly dry in remaining divisions of U.P. on 19<sup>th</sup> September.
- Isolated rain/thundershowers are likely over the State.

#### **Advisories**

- As there was no significant rainfall over the State during last week except and rain/thundershowers are likely at isolated places over the state, apply irrigation to the crops.
- Continue sowing of toria.
- Continue sowing of winter vegetable crops. Proper drainage arrangements for avoiding water logging in turmeric may be done.
- Monitor the white grub in sugarcane, to control plant 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.
- Maintain 2.5- 3.0 cm water level in transplanted paddy and undertake top dressing of urea.
- To control Anthracanare disease in mango garden, spray the solution of Copper Oxylchloride 3gm/lit in water and to control gummosis in mango tree mix Copper Sulphate 250 gm, Zinc Sulphate 250 gm, Borax 125 gm and Slake lime 100 gm in the soil and light watering as per requirement may be done.
- Monitor rice for gundhi bug and if the pest population crosses ETL, dust Malathion 5% @ 20 kg/ha

#### **Himachal Pradesh**

- Precipitation occurred at isolated places in the State during the period.
- Rain/thundershowers are likely at a few places over the State.

#### **Advisories**

- As there was no significant rainfall over the State during last week and rain/thundershowers are likely at a few places over the State for the next three days, apply irrigation to vegetables, potato and maize crops.
- Harvest already matured fruits of apple.
- Start harvesting matured crop of potato.
- Maintain 3 – 5 cm water in rice field.
- There is mild chance of attack of leaf spot disease in cabbage and cauliflower. If attack crosses economic threshold level, spray Dithane M – 45 on a non rainy day 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 oxylchloride @ 300 g in 100 litres of water on a non rainy day to control the disease.

- Monitor the crop for leaf hopper in rice crop. If damage exceeds economic threshold level, spray 1250 ml Chloropyriphos 20 EC (0.05%) per 500 litres of water / ha on a non rainy day.

### **Uttarakhand**

- Light to moderate rain was recorded at a few places on 19<sup>th</sup> September while it remained mainly dry on rest of the days of the week. Sky remained mainly clear to partly cloudy to generally cloudy during the period.
- Rain/thundershowers are likely at a few places over the State.

### **Advisories**

- As there was no significant rainfall over the State during last week and rain/ thundershowers are likely at a few places over the State for the next three days, apply irrigation to sugarcane, potato, and ginger.
- Undertake intercultural operations on a non rainy day, to 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 on a non rainy day.
- Undertake field preparation and sowing of toria/pea.
- Monitor rice for stem borer and if the pests population crosses ETL, spray Methyl parathion @ 350 ml/ha on a non rainy day to control the pest.
- Monitor ginger for rhizome rot and collect and destroy the affected plants completely to prevent further damage.

### **Jammu & Kashmir**

- Light rain occurred at isolated places on 17<sup>th</sup> and 18<sup>th</sup> September whereas weather remained mainly dry on 19<sup>th</sup> September over J&K divisions.
- Rain/thundershowers are likely at a few places over the region.

### **Advisories**

- As there was no significant rainfall in most of the districts during last week and rain/thundershowers are likely at a few places over the State for the next three days, apply irrigation to maize, vegetable and fruit crops in Kashmir division and to maize in Jammu division.
- Maintain 5 cm standing water in rice field.
- Continue sowing/transplanting of cabbage, cauliflower, kale and knol-khol.
- Monitor the citrus crop for outbreak of canker, spray the crop with Terramycin 1 gm in 10 litre of water or copper Oxychloride @ 0.3% or dimencron 1ml in 1 litre of water, on a non rainy day.
- Monitor the crop for outbreak of rice *hispa* and stem borer attack in rice crop under such conditions, if required spray the crop with Carbofuran 3 G @ 20 kg /ha or Phorate 10G @ 10 kg /ha for stem borer and Quinolphos 25 E.C @ 11/ha or Endosulphan 35 E.C @ 1.5 lit/ha on a non rainy day for rice hispa. Rouge out the false smut affected plants.
- Monitor chilies and bhindi for white flies and thrips, undertake spraying of malthion @0.005%or Endosulfan 35EC @0.07% on a non rainy day.

### **Delhi**

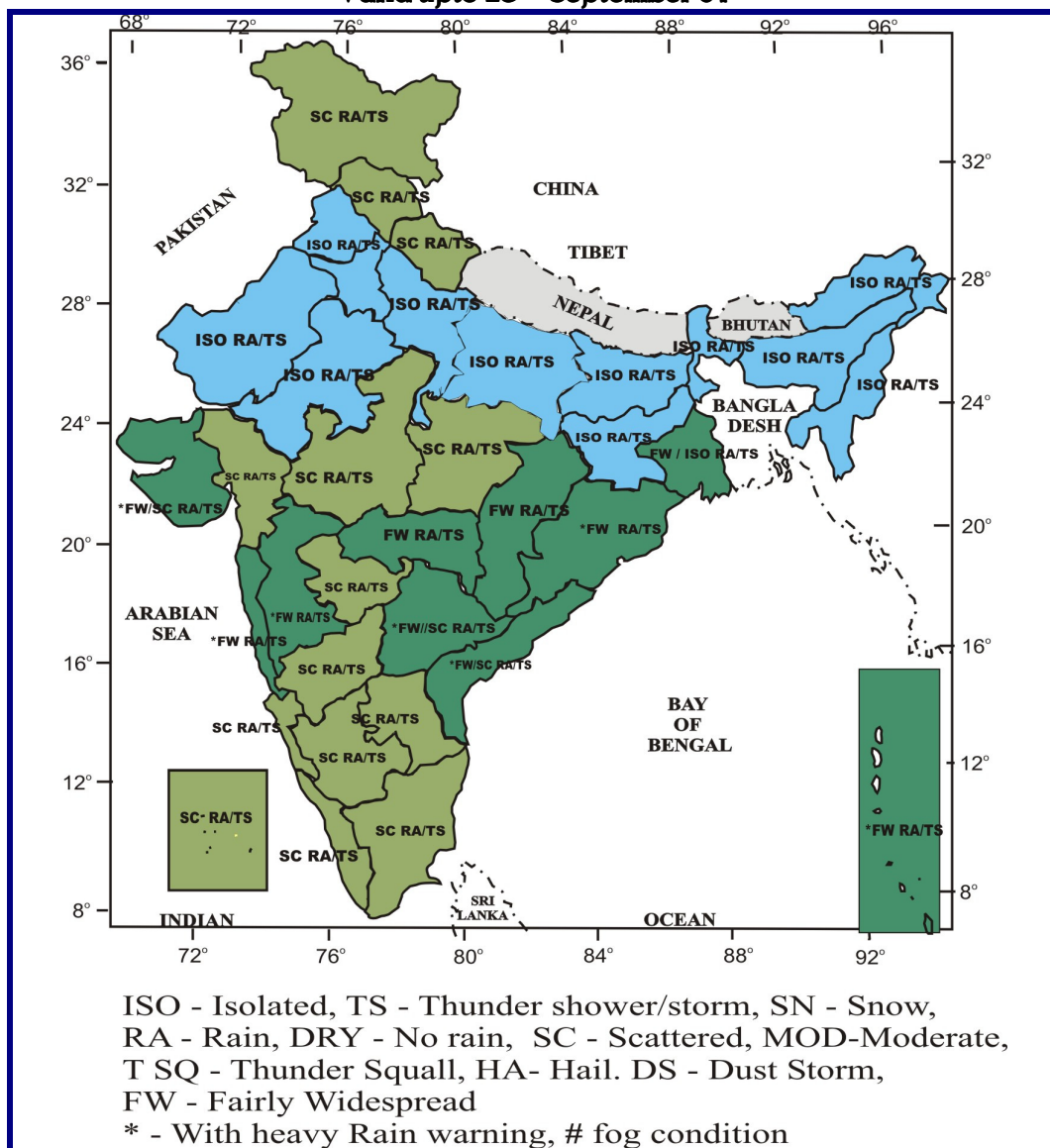
- Weather remained mainly dry.
- Isolated rain/thundershowers are likely over the State.

### **Advisories**

- As there was no significant rainfall in the State during last week and rain/thundershowers are likely at isolated places over the State for the next three days, apply irrigation to vegetables, arhar, maize and bajra.

- Continue intercultural operation and application of plant protection measures in vegetables, arhar, maize and bajra.
- Maintain 3 – 5 cm water in the rice field at tillering stage. Apply 1/3<sup>rd</sup> dose of Nitrogen in 50 – 60 days old crop.
- Prepare land and undertake transplanting of 5 – 6 weeks old seedlings of early cauliflower and cabbage and also seedlings of brinjal and chilly in the main field.
- Spray 0.2% of Captan mixed in water on standing plants of vegetables to control the spread of Damping-off.
- If ergot disease is seen on ear heads of bajra, collect and destroy completely to prevent further spread and damage.
- Prepare field and undertake sowing of toria. Use varieties like Type1, Sangam, TL-15 and Ludhiana composite.

**Forecast Map**  
**Valid upto 23<sup>rd</sup> September 07**



## *Salient weather features for the week ending 19/09/07*

### **METEOROLOGICAL ANALYSIS**

- A low pressure area formed over northwest Bay of Bengal and adjoining coastal areas of north Orissa and West Bengal on 13th morning. It persisted over the same region on 14th and became less marked on 15<sup>th</sup>. However, the associated upper air cyclonic circulation lay over northwest and adjoining West-Central Bay of Bengal off Orissa and Andhra Pradesh coasts on 16<sup>th</sup>. Again, under the influence of this cyclonic circulation, a low pressure area formed over west-central Bay of Bengal and adjoining Coastal Andhra Pradesh on 17<sup>th</sup>. It lay as a well marked low pressure area over the same region on 18<sup>th</sup> and 19<sup>th</sup>.
- While the western end of the monsoon trough lay to the north of its normal position or near normal position, the eastern end of the monsoon trough shifted gradually from north to south during the week in association with the low pressure area over the Bay of Bengal.
- A feeble off-shore trough at mean sea level ran from Konkan coast to Kerala coast during many days of the week.
- A trough in lower tropospheric levels ran from north Pakistan to north Arabian Sea during the week.

### **RAINFALL**

Under the influence of the above systems:

- Widespread /fairly widespread rainfall with isolated heavy to very heavy falls occurred over Orissa during 14-17th and over Andhra Pradesh during 15-19th. Widespread /fairly widespread rainfall with isolated heavy to very heavy falls also occurred over Kerala, Karnataka and Andaman & Nicobar Islands during many days of the week.
- Scattered/fairly widespread rainfall occurred over Konkan & Goa, Madhya Maharashtra, Marathwada and Lakshadweep during many days of the week. Scattered/fairly widespread rainfall also occurred over Sub-Himalayan West Bengal & Sikkim and northeastern states during many days of the week.
- Isolated to scattered rainfall occurred over remaining parts of the peninsula, most parts of central India and remaining parts of East India during many days of the week.
- The rainfall activity was sub-due over remaining parts of the country, where isolated rainfall occurred during many days of the week.

### **RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 19<sup>TH</sup> SEPTEMBER, 2007)**

Rainfall was excess/normal in 17, deficient/scanty in 19 out of 36 meteorological sub-divisions (Actual: 36.1 mm, Normal: 40.0 mm and Departure: - 10%).

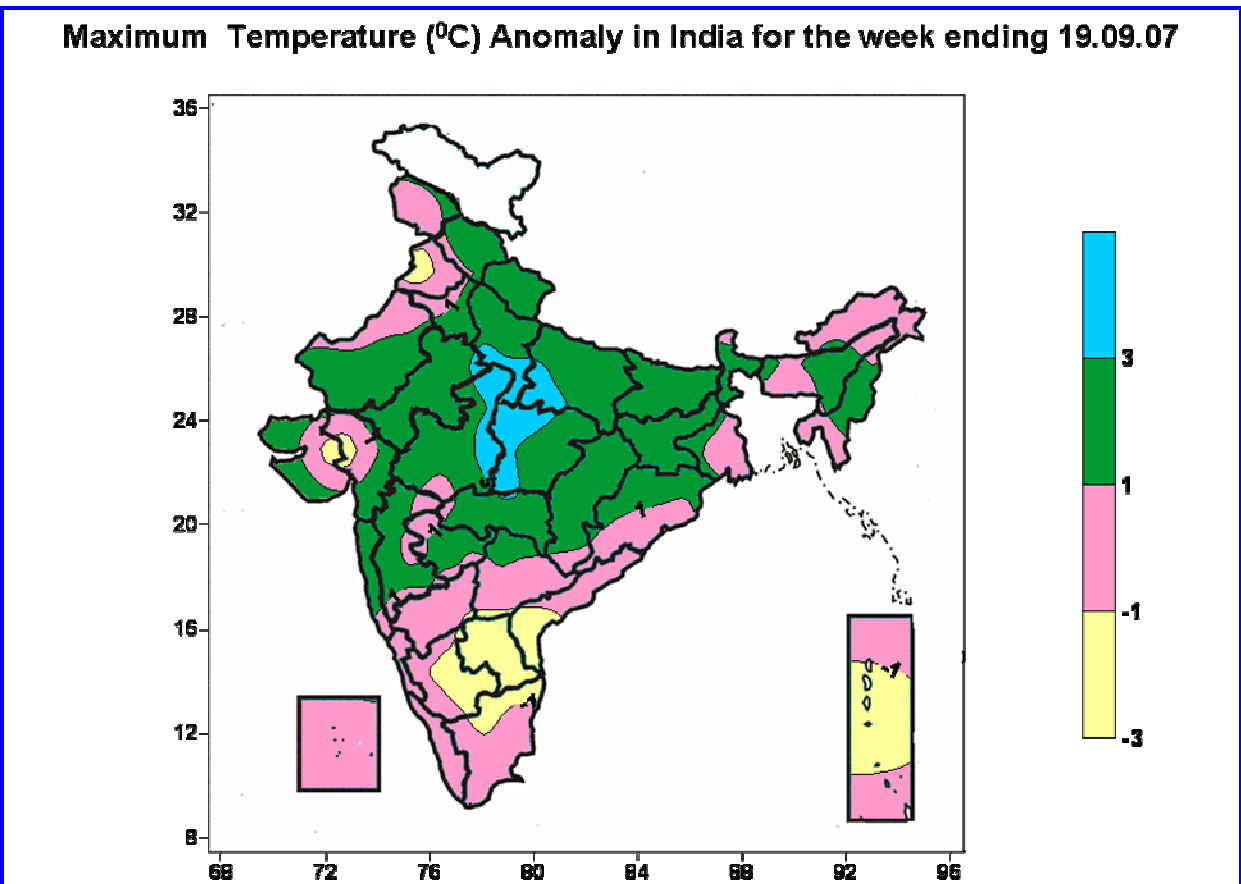
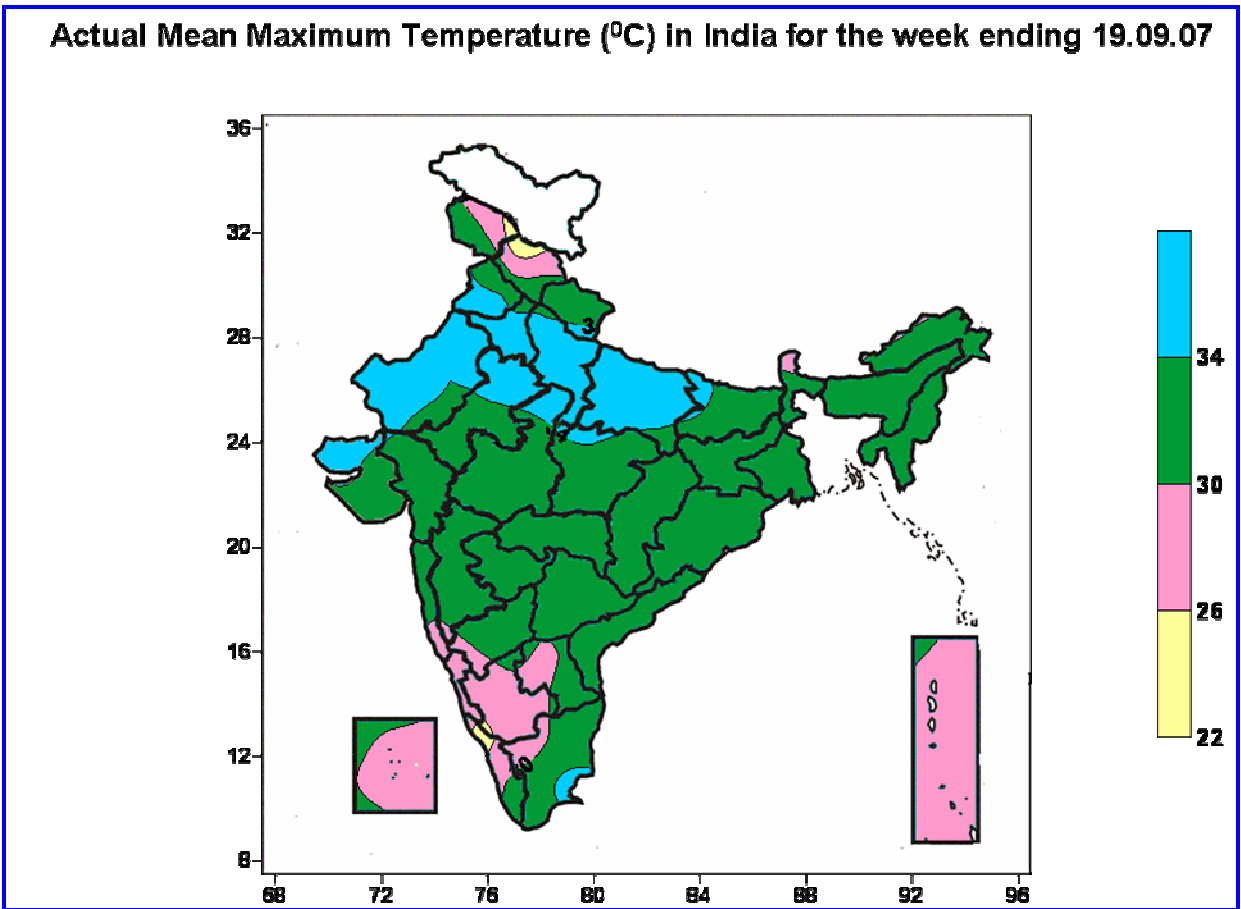
### **CUMULATIVE SEASONAL RAINFALL (1ST JUNE TO 19<sup>TH</sup> SEPTEMBER, 2007)**

Rainfall was excess/normal in 30 and deficient in 6 out of 36 meteorological sub-divisions. (Actual: 860.6 mm, Normal: 838.4 and Departure: +3%).

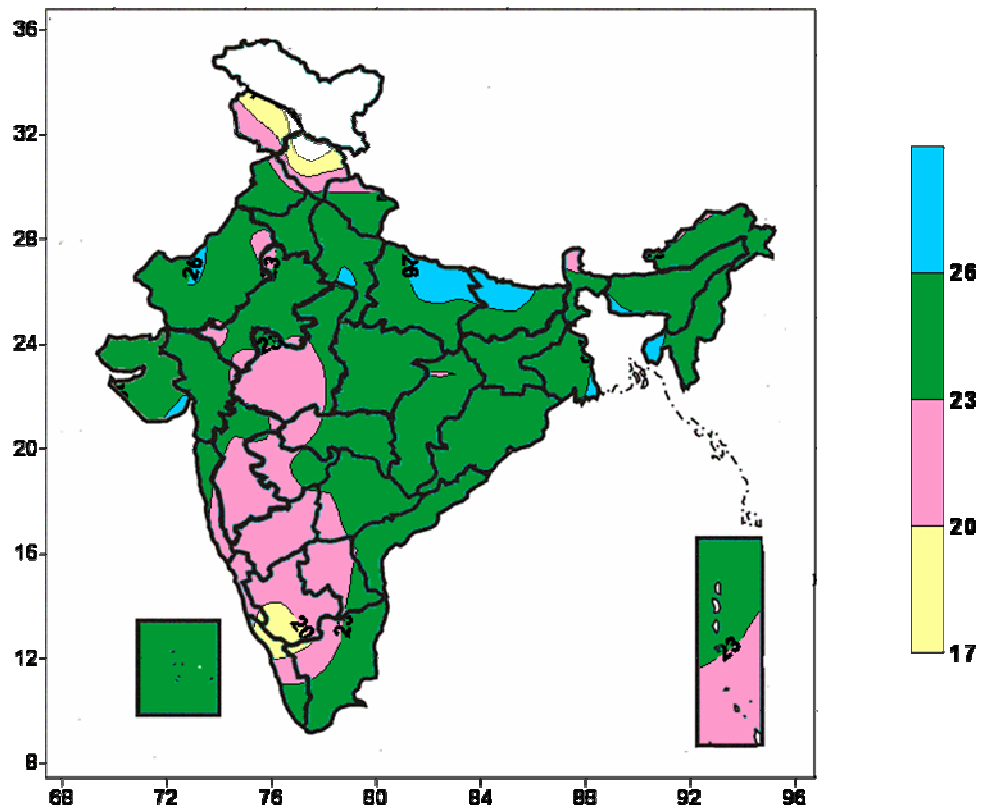
### **OUTLOOK FOR THE WEEK ENDING ON 26<sup>TH</sup> SEPTEMBER, 2007.**

- The well marked low pressure area over West-Central Bay of Bengal is likely to concentrate into a depression and cause widespread rainfall with isolated heavy to very heavy falls over Orissa and north Andhra Pradesh during first half of the week. The enhanced rainfall activity is likely to shift towards central and west India during second half of the week
- Scattered fairly widespread rainfall activity is likely over northwest India during second half of the week.
- Decrease in rainfall activity over the peninsular India during second half of the week.

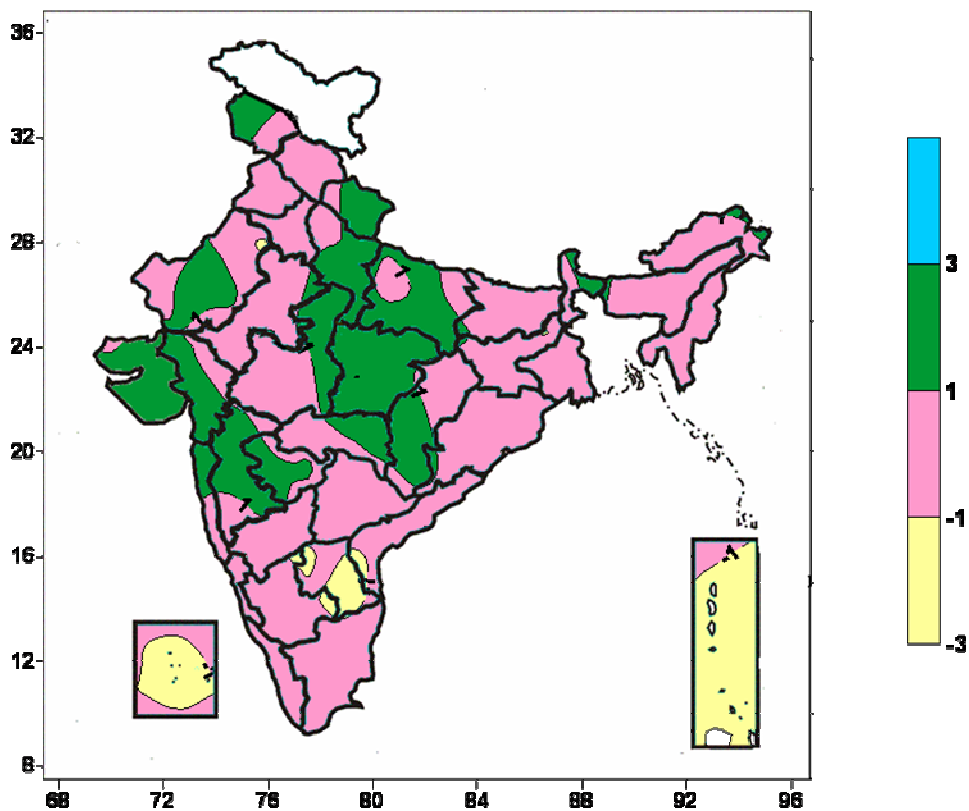
# Contour maps for the week ending 19<sup>th</sup> September, 2007



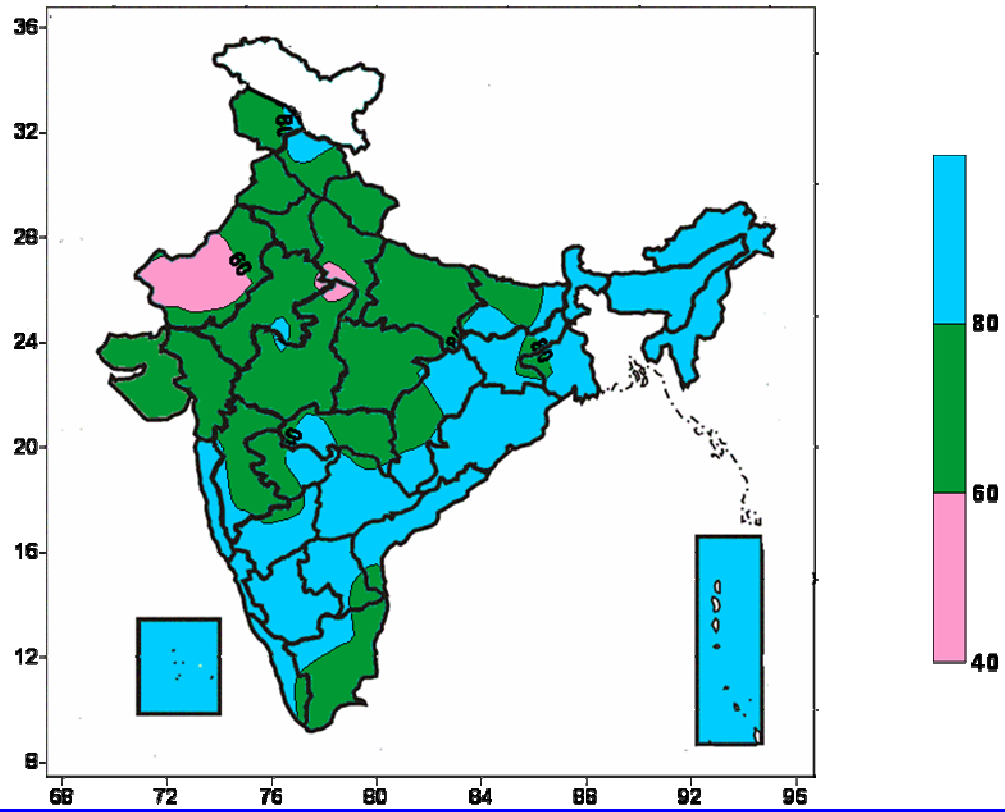
### Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 19.09.07



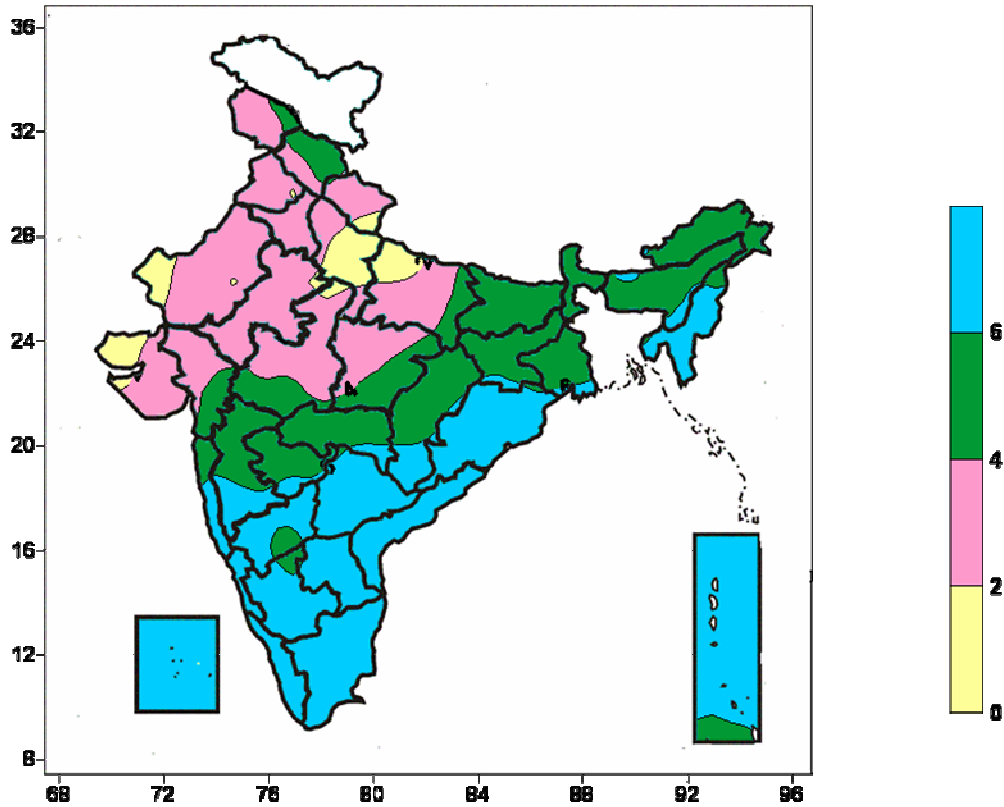
### Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 19.09.07



Relative Humidity (%) over India for the week ending 19.09.07

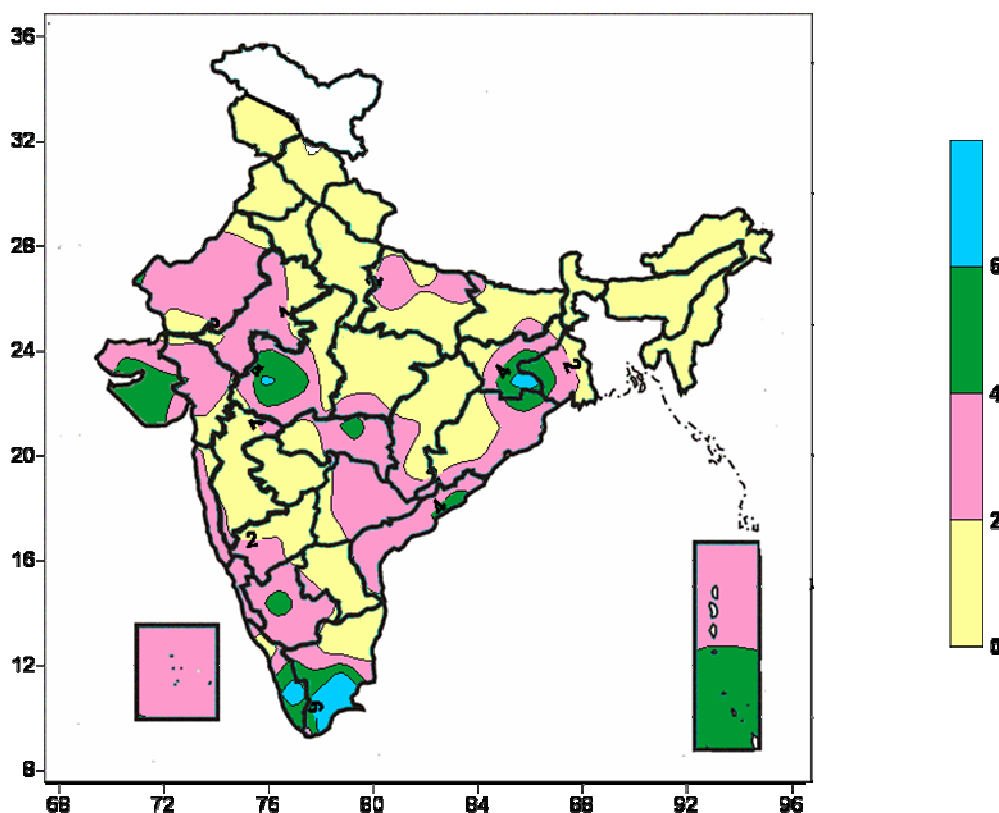


Cloud amount (okta) over India for the week ending 19.09.07





### Wind speed (knots) over India for the week ending 19.09.07



### Desert Locust Forecasting



RAINFALL							
-	13.9.07	14.9.07	15.9.07	16.9.07	17.9.07	18.9.07	19.09.07
<b>Amritsar</b>	0	0	0	0	0	0	0
<b>Barmer</b>	0	0	0	0	0	0	0
<b>Sriganganagar</b>	1.6	0	0	0	0	0	0
<b>Jaisalmer</b>	0	0	01	0	0	0	0
<b>Kota</b>	9.2	0	0	43.5	0	0	0
<b>Deesa</b>	0	0	0	0	0	0	0
<b>Churu</b>	22.2	7.1	0	0	0	0	0

Temperature (degree Celcius)							
Station Name	13.9.07	14.9.07	15.9.07	16.9.07	17.9.07	18.9.07	19.9.07
<b>Amritsar</b>	28.5	29.0	29.0	30.0	29.0	29.5	29.5
<b>Barmer</b>	30.5	31.0	30.5	31.0	31.5	32.0	32.0
<b>Sriganganagar</b>	29.0	29.0	30.5	31.0	31.0	31.5	31.5
<b>Jaisalmer</b>	30.5	30.0	30.0	30.0	31.0	32.0	32.0
<b>kota</b>	30.0	30.0	29.5	28.5	29.5	31.0	32.0
<b>Deesa</b>	29.0	29.0	-	29.5	-	30.5	30.5
<b>Churu</b>	-	-	-	-	-	-	-

Summer breeding is coming to an end along both sides of the **Indo-Pakistan** border where only low numbers of locusts are present. Under the prevailing weather conditions, there is no chance of locust infestation in Rajasthan and the adjoining areas during this week.

## CROP – STATE – STAGE

### Delhi

Vegetables	Early sown vegetables	Rice	Arhar	Maize
Transplanting	Vegetative	Tillering	Flowering / Pod formation	Flowering
<b>Bajra</b>	<b>Toria</b>			
Grain formation	Sowing			

### Haryana

Sugarcane	Horticultural crops	Kharif Pulses	Cotton	Paddy
Vegetative	Vegetative	Harvesting	Picking	Panicle initiation
<b>Kharif Groundnut</b>				
Vegetative				

### Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Apple	Rice	Maize
Vegetative/ head formation Ladies finger -- Flowering/Fruiting	Tuber development / maturity	Maturing/Harvesting	Grain formation	Milking / maturity

### Jammu & Kashmir

Vegetable crops	Rice	Maize	Pulses	Palak / Methi / Dhania
Fruiting/harvesting--in Kashmir Div.	Grain formation	Cob formation- Jammu Div. Cob maturity - Kashmir div.	Flowering	Sowing

### Punjab

Sugarcane	Horticultural crop	Kharif pulses	Cotton	Paddy
Vegetative	Vegetative	Pod harvesting	Boll maturity / picking	Panicle initiation
<b>Kharif Groundnut</b>	<b>Cauliflower, raddish, chillies</b>			
Vegetative	Sowing			

### Rajasthan

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

### Uttar Pradesh

Sugarcane	Kharif Vegetables	Mango	Rice	Toria
Vegetative	Vegetative / flowering	Vegetative	Flowering / grain formation	sowing
<b>Kharif oilseeds</b>				
Flowering/ grain formation				

### Uttarakhand

Apple	Ginger	Sugarcane	Potato	Kharif Rice
Harvesting	Rhizome development	Grand growth	Tuber growth	Heading
<b>FingerMillet/ Amranthus</b>	<b>Mango/Litchi</b>	<b>Toria / pea</b>		
Vegetative	Seedling	Sowing		

### Assam

Maize	Sugarcane	Arhar	Sali rice	Black Gram & Green Gram
Harvesting	Grand growth / maturity / harvesting	Vegetative	Tillering / vegetative	Land preparation and Sowing
<b>Early sown Black Gram &amp; Green Gram</b>				
Early vegetative				

### Arunachal Pradesh

WRC Rice	Ginger	Millet	Jhum Paddy	Winter / Rabi crops
Vegetative / flowering	Rhizome maturity	Grain formation	Vegetative / flowering	Sowing

### Bihar

Vegetables & fruit crops	Maize	Arhar	Sugarcane	Kharif rice
Sowing	Maturity	Vegetative	Vegetative	Early vegetative / tillering

### Jharkhand

Kharif rice	Ragi	Vegetables (Tomato, Brinjal, Bhendi)	Upland crops (Maize, arhar, groundnut, soybean, urad, rice and ragi)
Flowering	Transplanting	Sowing Early sown – Early vegetative	Vegetative / flowering
Pea	Potato		
Sowing	Planting		

### Sikkim

Maize	Orange	Vegetables	Large Cardamom	Ginger
Harvesting	Fruiting New planting in some places	Nursery sowing	Capsule maturity/Early harvesting	Flowering
Rice				
Active tillering				

### West Bengal

Sugarcane	Jute	Aus rice	Groundnut	Arhar
Vegetative	Maturity / harvesting	Maturity	Flowering / pegging	Vegetative
Aman rice				
Tillering				

### Chattisgarh

Sugarcane	Black gram, Green Gram & Groundnut	Soybean	Kharif Rice	Maize
Vegetative	Vegetative / flowering	Vegetative / flowering	Tillering	Vegetative

### Gujarat

Sugarcane	Kharif Rice	Castor	Kharif Groundnut	Kharif Cotton
Cane development	Panicle initiation	Vegetative	Peg / pod formation	Flowering / boll formation
Kharif Maize	Kharif Bajra			
Milking	Ear head formation			

### Maharashtra

Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marathwada and Vidarbha)	Irrigated cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Rice (Konkan)	Kharif Rice (Madhya Maharashtra, Marathwada & Vidarbha)
Active growth / elongation	Active growth	Flowering / boll formation	Flag leaf initiation / panicle initiation	Tillering / Flag leaf initiation
Kharif Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Bajra (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Groundnut (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Green Gram (Madhya Maharashtra, Marathwada & Vidarbha)
Flag leaf initiation / flowering	Grain formation / maturity	Flowering / pegging	Flowering / head formation	Pod maturity / harvesting
Kharif Cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Tur (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Soyabean (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi Jowar	Rabi safflower
Vegetative growth / flowering	Vegetative growth / primary branching	Pod formation / pod maturity	Sowing	Sowing.

**Madhya Pradesh**

<b>Sugarcane</b>	<b>Kharif crops (maize, urd and jowar)</b>	<b>Kharif rice</b>	<b>Soyabean</b>	<b>Cotton</b>
Grand growth	Vegetative	Panicle initiation	Pod formation	Active vegetative

**Orissa**

<b>Kharif vegetables</b>	<b>Kharif rice</b>	<b>Sugarcane</b>	<b>Arhar</b>	
Vegetative / fruiting	Flowering	Vegetative	Vegetative	

**Andhra Pradesh**

<b>Kharif Rice</b>	<b>Kharif Maize</b>	<b>Kharif Cotton</b>	<b>Kharif Groundnut</b>	<b>Kharif Black gram, Green gram</b>
Tillering	Flowering / grain formation	Flowering / grain formation	pegging	Pod formation / maturity

**Karnataka**

<b>Sugarcane (Ratoon crop)</b>	<b>Kharif Sunflower</b>	<b>Groundnut</b>	<b>Jowar</b>	<b>Kharif maize</b>
Grand growth	Flowering	Flowering / Peg formation	Milking	Tasseling / milking

**Kerala**

<b>Rubber</b>	<b>Virippu rice</b>	<b>Mundakkan Rice</b>		
Tapping	Harvesting	Nursery sowing		

**Tamil Nadu**

<b>Rice (Kuruvai/Samba)</b>	<b>Sugarcane (Early, Mid and Late season)</b>	<b>Maize</b>	<b>Groundnut/Black gram/Green gram/Red gram</b>	<b>Cotton</b>
Samba- Early vegetative Kuruvai – Tillering / vegetative	Grand growth Late Sugarcane- Harvesting	Sowing	Sowing	Picking
<b>Jowar/Bajra/Samai</b>	<b>Special season sugarcane</b>	<b>Early sown maize</b>	<b>Early sown Groundnut/Black gram/Green gram/Red gram</b>	
Sowing	Planting	Early vegetative / vegetative	Early vegetative	

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