



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

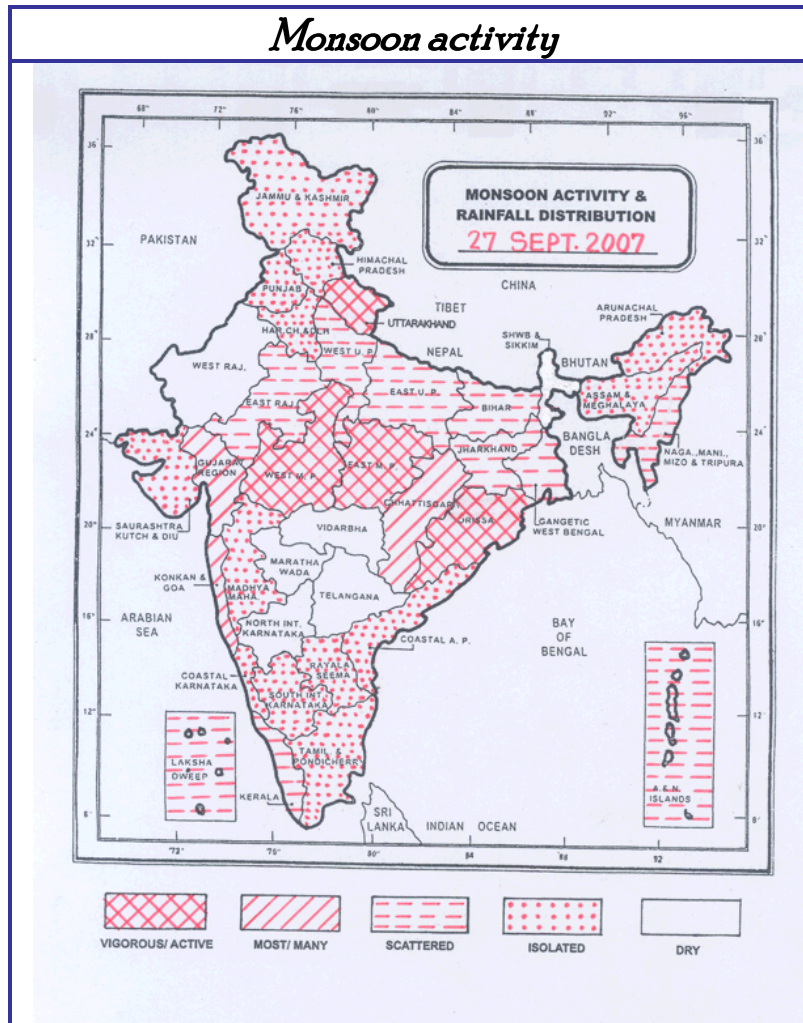
Issued by

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**Thursday, 27<sup>th</sup> September, 2007**

(For the period 27<sup>th</sup> September to 1<sup>st</sup> October, 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 25<sup>th</sup> September and active on 24<sup>th</sup> & 26<sup>th</sup> September. Rain occurred at most places during 24<sup>th</sup> to 26<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.
- Continue intercultural operations, application of fertilizers and pesticides in plantation crops on a non rainy day.

- Attack of rhinoceros beetle, red palm weevil, coried bug, leaf rot and stem bleeding is reported in coconut. Fill the leaf axils with 25 gm. Sevidol 8 G and fine sand 200 gm to control rhinoceros beetle. Use Pheramon trap @ 1 per two ha to monitor and destroy red palm weevil. Spray carbaryl @ 4 gm per litre of water to control coried bug. As a prophylactic measure spray crowns and leaves with 1% Bordeaux mixture or 0.5% copper oxychloride formulation or 0.4% mancozeb. In the leaf rot affected plants, remove the rotten parts from the spear and the two adjacent leaves and pour 300 ml fungicidal solution at the base of the spear which can be prepared by mixing 2 ml of hexaconazole 5 EC or mancozeb 3 gm in 300 ml of water. To control stem bleeding, chisel out completely the affected tissues and paint the wound with tridemorph 5 %.Apply coal tar after 1-2 days. Root feed with tridemorph 5 % to prevent further spread of lesions. Spraying of chemicals may be undertaken 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.
- Attack of pink disease is reported in rubber. Clean the affected portion and apply Boardeaux paste @ 1% 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**

- Rainfall occurred at one or two places over the State on 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> September.
- Rain / thundershowers are likely at isolated places over the State.

### **Advisories**

- As rain / thundershowers are likely at isolated places over the State, apply irrigation to sugarcane and early sown maize, jowar, bajra and pulses.
- Monitor sugarcane for stem borer and if the pest population crosses ETL, release *Trichogramma* egg parasite @ 5 cc / acre 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 of late sugarcane.
- Continue sowing of rainfed millet crops like jowar, bajra and samai. Undertake seed treatment with *Azospirillum* before sowing.
- Continue picking of matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.

### **Karnataka**

- Rain/thundershowers are likely at a few places over Coastal Karnataka and isolated over Interior Karnataka.

### **Advisories**

- As there was no significant rainfall over the State during last week except in Coastal Karnataka, Bidar and Gulbarga in North Interior Karnataka and Chickmagalur, Kodagu and Shimoga in South Interior Karnataka, apply irrigation to summer sugarcane, *Kharif* jowar, maize, cotton, groundnut and sunflower. Postpone irrigation in the above mentioned districts as there was sufficient rainfall during last week.
- Continue intercultural operations, application of fertilizers and pesticides to *kharif* jowar, maize, cotton, groundnut and sunflower. Intercultural operations and application of fertilizers and pesticides may be undertaken on a non rainy day in Coastal Karnataka.

- Monitor groundnut for red hairy caterpillar. Undertake plant protection measures to control the pest at the early stage. Spraying of chemicals may be undertaken on a non rainy day in Coastal Karnataka.
- Monitor sugarcane for white woolly aphids and release predators *viz.*, *Dipha* sp., adopt wider spacing, inter-cropping with soyabean and pulses of short duration to control the pest. Release of predators may be undertaken on a non rainy day in Coastal Karnataka.

### **Andhra Pradesh**

- South West monsoon was active over Coastal Andhra Pradesh from 20<sup>th</sup> to 23<sup>rd</sup> September over Telangana on 20<sup>th</sup> & 21<sup>st</sup> September. Rain occurred at many places over Telangana on 22<sup>nd</sup> September and at a few places over Telangana on 26<sup>th</sup> September and over Rayalaseema on 20<sup>th</sup> September. Isolated rain occurred over Coastal Andhra Pradesh from 24<sup>th</sup> to 26<sup>th</sup> September, over Telangana from 23<sup>rd</sup> to 25<sup>th</sup> September and over Rayalaseema on 22<sup>nd</sup>, 23<sup>rd</sup>, 25<sup>th</sup> & 26<sup>th</sup> September. Dry weather prevailed over Rayaseema on 24<sup>th</sup> September.
- Rain / thundershowers are likely at a few places over north Coastal Andhra Pradesh and isolated over south coastal Andhra Pradesh, Telangana and Rayalaseema.

### **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 Nellore and Prakasam districts in Coastal Andhra Pradesh, Rangareddy in Telangana and Anantapur, Chittoor, Cuddappah and Kurnool districts in Rayalaseema. Apply irrigation in the above mentioned districts as there was no significant rainfall occurred during last week
- 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 @ 2.5 ml per litre of water. Spraying of chemicals may be undertaken on a non rainy day in north Coastal Andhra Pradesh.
- Monitor cotton for sucking pests and *Spodoptera* and if the damage crosses ETL, spray Monocrotophos @ 1.6 ml or Acephate @ 1.5 g or Imidacloprid @ 0.4 ml per litre of water to control sucking pests (thrips). To control early stage larvae of *Spodoptera*, spray Chloropyriphos @ 2.5 ml or Thodocarb @ 1.5 ml of Carbaryl @ 3 g per litre of water. Spraying of chemicals may be undertaken on a non rainy day in north Coastal Andhra Pradesh.
- Undertake earthing up in *kharif* crops to keep the field weed free. Earthing up may be undertaken on a non rainy day in north Coastal Andhra Pradesh.
- Monitor groundnut for Tikka leaf spot. To control tikka leaf spot in groundnut, spray Carbendazim @ 1g + Mancozeb @ 2.5 g or Hexaconazole @ 2 ml per litre of water. Spraying of chemicals may be undertaken on a non rainy day in north Coastal Andhra Pradesh.
- Continue harvesting maize, green gram and black gram on bright sunny days.

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

### **Assam**

- Light rain occurred at isolated places on 26<sup>th</sup> September and weather was mainly dry over the region during rest of the period. Generally cloudy sky on 26<sup>th</sup> September and partly cloudy sky on 24<sup>th</sup> & 25<sup>th</sup> September.
- Rain/thundershowers are likely at a few places over the State during next 24 hours and increase thereafter.

### **Advisories**

- As there was no significant rain during last week over the State and rain / thundershower is likely to occur only at a few places, apply irrigation to arhar, black gram and green gram.

- *Sali* rice and early winter vegetables are damaged in few localities due to flood. After receding of flood water second dose of urea @ 3 kg per bigha should be top dressed in the rice field.
- Start harvesting of matured crop of sugarcane. Red rod infested sugarcane may be harvested early and the field should be newly planted. Ratooning of infested plant should be discarded.
- 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 Chloropyrifos 20 E.C. @ 2 ml per litre of water or Monocrotophos 40 EC @ 1.5 ml per litre of water is to be applied on a non-rainy day. For management of yellow stem borer *Trichogramma Japonicum* @ 50,000 per hectare in six releases are to be used.
- In 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, if required, on a non-rainy day.
- Prepare land for early variety of winter vegetables such as spinach, reddish & coriander etc. and seeds of hybrid varieties of tomato, brinjal, capsicum, cauliflower and cabbage etc. may be collected from reputed sources and should be sown in the seed bed for raising seedling for planting in the main fields. Damaged seedbed should be resown after preparation of land properly.

### **Arunachal Pradesh**

- Sky remained mainly clear over the State during the period.
- Rain / thundershowers are likely at a few places over the State during next 24 hours and increase thereafter.

### **Advisories**

- As there was no significant rainfall during last week and rain / thundershowers are likely at a few places over the State during next 24 hrs, apply irrigation to millet, *jhum* paddy and ginger crops.
- Continue weeding, spraying and intercultural operations in millet, *jhum* paddy and ginger crops on a non rainy day.
- Continue land preparation and sowing of potato and wheat.
- Continue land preparation and nursery sowing of *rabi* vegetables like Cauliflower, Chinese cabbage, Carrot, Knol-khol, Lettuce, Methi, Palak, Peas, Radish, Tomato, Turnip etc.

### **Bihar**

- Rainfall occurred at most places on 24<sup>th</sup>, 25<sup>th</sup> & 26<sup>th</sup> September. Heavy to very heavy rainfall occurred at a few places on 25<sup>th</sup> & 26<sup>th</sup> September. Rain occurred at isolated places on rest of the days.
- 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 hrs.

### **Advisories**

- Postpone irrigation to arhar (early sown) and sugarcane as rain/thundershowers are likely at many places over the State during next 3 days with isolated heavy to very heavy rainfall during next 48 hrs. Provide adequate drainage facilities to avoid water logging due to heavy rainfall.
- Postpone sowing of raddish, early cauliflower, chillies, potato, fodder maize, mung, urd and arhar castor & tomato under prevailing weather condition.
- Top dressing of nitrogen @ 20 Kg/ha after weeding to rice can be done after current spells of rain.

### **Jharkhand**

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

### **Advisories**

- Postpone irrigation to vegetables, maize, arhar, groundnut, soybean and urad as rain/thundershowers are likely at many places over the State during next 3 days.

- Monitor rice for gundhi bug. If damage exceeds ETL, spray 25 kg chlorpyrifos dust per hectare after current spells of rain.
- Monitor maize crop for stem borer infestation and if exceeds economic threshold level, about 10 granules of carbofuron should be applied in ear head. After weeding, top dressing of urea @ 75 kg urea per hectare may be applied after current spells of rain and do earthing after current spells of rain.
- Topdressing of urea @ 75 kg / ha for maize may be done after current spells of rain.
- Continue land preparation and sowing of pea and potato.

### **Sikkim**

- Sky remained generally cloudy during the period. Very light to light rain occurred at a few places in East Sikkim on 20<sup>th</sup>, 21<sup>st</sup> and 25<sup>th</sup> September. Moderate rain occurred at many places over East Sikkim on 26<sup>th</sup> September. Weather was mainly dry from 22<sup>nd</sup> to 24<sup>th</sup> September. Rain fall was scanty over East Sikkim during the period.
- Rain/thundershowers are likely at many places over the State.

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

### **Advisories**

- As rain/thundershowers are likely at many places over the State for the next three days, postpone irrigation to orange and ginger. Arrange for drainage facilities to remove excess water from the field as isolated heavy to very heavy rainfall is likely over the State.
- Maintain water level of 3-5 cm in rice to enable maximum tillering.
- Complete harvesting of matured vegetable crops.
- Monitor ginger for rhizome rot and bacterial wilt and rouge out the affected plants and destroy completely to prevent further damage.
- Monitor orange for fruit flies. Prepare baits made of Sevin and keep after current spells of rain and once in every 10-15 days till harvesting.

### **West Bengal**

- SW-Monsoon was vigorous on 24<sup>th</sup> and 25<sup>th</sup> September over Gangetic West Bengal. Rainfall occurred at isolated places on 24<sup>th</sup> September, at a few places with heavy to very heavy rainfall at isolated places on 25<sup>th</sup> September and at a few places on 26<sup>th</sup> September over Sub-Himalayan West Bengal. Rainfall occurred at most places, with heavy to very heavy at a few places on 24<sup>th</sup> September, heavy to very heavy at a few places on 25<sup>th</sup> September and at a few places on 26<sup>th</sup> September over Gangetic West Bengal.
- Rain/ thundershowers are likely at many places over the State.

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

### **Advisories**

- As rain / thundershowers are likely at many places over the State during next three days, postpone irrigation to the crops. As there was excess rain during last week in all the districts of Gangetic West Bengal and isolated heavy to very heavy rainfall is likely over the State during next 48 hours, make arrangement for draining out excess water from the field.
- Maintain 3 – 5 cm water in the field of *aman* rice.
- Also postpone intercultural operation, application of fertilizer and plant protection measures to the crops under prevailing weather condition.

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

### **Gujarat**

- Monsoon was vigorous over Saurashtra, Diu. Rainfall occurred at a few places over Gujarat region, Daman, Dadra Nagar Haveli, Kutch on 24<sup>th</sup> September. Monsoon was vigorous over Saurashtra, active over Gujarat region, Daman, Dadra Nagar Haveli. Rainfall occurred at a few places over Kutch on 25<sup>th</sup> September. Monsoon was active over Gujarat region, Daman,

Dadra Nagar Haveli. Rainfall occurred at a few places over Saurashtra, Diu and at isolated places over Kutch on 26<sup>th</sup> September.

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

#### **Advisories**

- As there was excess rain during last week over the State and rain/thundershowers are likely at many places over the State during next three days, postpone irrigation to the standing crops.
- Postpone intercultural operation, application of fertilizer and plant protection measures to the crops under prevailing weather condition.

#### **Chhattisgarh**

- Monsoon was active on 24<sup>th</sup> September. Rainfall occurred at a few places on 25<sup>th</sup> and 26<sup>th</sup> September in the State.
- Rain/thundershowers are likely at many places over north Chhattisgarh and at a few places over rest of the State.

#### **Advisories**

- As there was good amount of rain in most of the districts during last week and rain/thundershowers are likely at many places over north Chhattisgarh and at a few places over rest of the State for next three days, postpone irrigation to the crops.
- Maintain 3 – 5 cm water in *kharif* rice field. Undertake top dressing of nitrogen 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.
- In late transplanted rice crops the incidence of roller / case worm is noticed particularly in low lying areas. For effective control of these insects spraying of Ekalux or Endosulphon or Chlorpyrifos @ 1500 ml or Monochrotophos @ 1000 ml per hectare in 400-500 liter of water is recommended.
- In areas where incidence of brown plant hopper and case worm / leaf roller is noticed in rice every year, spraying of Emidachlopride @ 100 ml per hectare or Chlorpyrifos @ 1.5 to 2.0 liter per hectare is recommended in place of granular insecticides.
- Incidence of blast / sheeth rot is reported in rice for some parts. To protect the crop from blast spraying of Beam (fungicide) @ 6 gm per 10 liter of water or Hinosan @ 1 ml per liter of water and for Sheeth rot Phytoton / Blitox / Diathane M 45 or Bavastin @ 1.5 gm per liter is advised.
- Postpone intercultural operation, application of fertilizer and plant protection measures in North Chattishgarh under prevailing weather condition. Undertake spraying in remaining parts of the State on a non-rainy day.

#### **Maharashtra**

- Monsoon was vigorous in South Konkan. Monsoon was active in North Konkan on 24<sup>th</sup> September & also in South Madhya Maharashtra & East Vidarbha on 25<sup>th</sup> September. Rain occurred at most places in Konkan, at many places in East Vidarbha and at a few places in Madhya Maharashtra, Marathwada & West Vidarbha.
- Rain/thundershowers are likely to occur at many places over Konkan & North Madhya Maharashtra, at a few places over South Madhya Maharashtra & Vidarbha and at isolated places over Marathwada.

#### **Advisories**

- As rain/thundershowers are likely at many places over North Madhya Maharashtra during next three days, Postpone irrigation to the crops.
- As there was no significant rain in Akola, Chandrapur, Yavatmal districts of Vidarbha, Sangli and Satara districts of South Madhya Maharashtra & Latur and Nanded districts of Marathwada & rain/thundershowers are likely only at a few places over South Madhya

Maharashtra and Vidarbha & at isolated places over Marathwada during next three days, apply irrigation to the standing crops.

- Maintain 3 – 5 cm water in the rice field.
- Second installment of 40 kg Nitrogen/ha may be applied through Ammonium sulphate in *kharif* rice in Madhya Maharashtra and Vidarbha, if Urea DAP briquette dose has not been given at the time of transplanting.
- 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 on flowers at the time of opening of florets in *kharif* sunflower.
- Mild incidence of 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 hairy caterpillar in Aurangabad and Pune division in *kharif* sunflower is reported.
- 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 *Crysopepla 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 25 EC Quinolphos @ 1000 ml or 36 EC Endosulphan @ 1000 ml / ha in 500 liters water.
- Undertake intercultural operation and plant protection measures after current spells of rain in Konkan and North Madhya Maharashtra & on a non day in South Madhya Maharashtra & Vidarbha.
- This is the proper time for sowing of *rabi* jowar and safflower. Select varieties from from Selection-3 for low fertile soil, Maldandi, Mauli, Phule chitra, SPV-86 for Madhya Maharashtra, SPV-669, AKSV-13-R for Vidarbha & PKV-809, SPV-1411 for Marathwada for medium & black soil for *rabi* jowar and Girna for Khandesh, Sharda for Marathwada, Bhima, JLSF-414 for Madhya Maharashtra & AKS-207 for Vidarbha for safflower.

### **Madhya Pradesh**

- Rainfall occurred at a few places in East Madhya Pradesh on 24<sup>th</sup> and 25<sup>th</sup> September, West and South East Madhya Pradesh 26<sup>th</sup> September and at isolated places over rest of the State for the remaining period.
- Rain/thundershowers are likely at a few places over the State.

### **Advisories**

- As there was no significant rainfall during last week except in Balaghat, Satna and Umaria in East Madhya Pradesh and in Betul, Dhar, Indore, Jhabua, Khargone and Ujjain in West Madhya Pradesh and rain / thundershowers are likely at a few places only for the next three days, apply irrigation to sugarcane and other *kharif* crops viz., soybean, maize, urd and jowar. Postpone irrigation in the above mentioned districts as there was sufficient rainfall during last week.
- Undertake intercultural operation in sugarcane and *kharif* crops on a non rainy day to keep the field weed free.

- 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 on a non rainy day.
- Monitor rice for stem borer and if the damage crosses ETL, spray Methyl parathion @ 350 ml/ha on a non rainy day to control the pest.
- Monitor maize for stem borer and if the damage crosses ETL, spray Carbaryl @ 500 ml/ha on a non rainy day to control the pest.

### **Orissa**

- Rain/thundershowers are likely at many places over the State. The earlier formed depression during previous days of the week crossed the State coast near Puri on 23<sup>rd</sup> September and lay centered near Angul and subsequently near Jharsuguda on 24<sup>th</sup> September and weakened gradually. Rainfall occurred at most places over the State on 24<sup>th</sup> September and at a few places during remaining days.
- Rain/thundershowers are likely at many places over the State.

### **Advisories**

- As rain/thundershowers are likely at many places over the state for the next three days, postpone irrigation to the crops.
- 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 leaf spot. To manage leaf spot in vegetable spray Mancozeb M-45 at a rate 3 gram per litre of water after current spells of rain.
- 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**

- Rainfall occurred at isolated places on 26<sup>th</sup> September. Weather remained mainly dry on rest days of the period.
- 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 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 wherever the crop is in grain formation stage.
- Continue planting of *autumn* sugarcane. Undertake sett treatment with *Azotobacter* before planting.
- Continue picking of cotton and harvesting of pulses on bright sunny days.
- Continue sowing of toria.

### **Haryana**

- Rainfall 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 in most of the districts during last week except and rain/thunder showers are likely at a few places over the State for the next three days, apply irrigation to sugarcane, cotton, pulses(in pod formation stage), groundnut and horticultural crops.
- 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 250 ml Rogor 30EC per hectare for effective control of cotton thrips, Metasystox 25 EC @ 1 ml / litre 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 on a non rainy day.
- Toria sowing should be completed with 21.5 kg seeds of TL-15 or TL-37 with 50 kg P<sub>2</sub>O<sub>5</sub>. Prefer Super phosphate for application and apply fertilizer on a non rainy day. Before sowing of toria apply pre sowing irrigation.
- Continue planting of autumn sugarcane. Undertake sett treatment with *Azotobacter* before planting. Use only recommended varieties by HAU, Hisar i.e COI83, 85 and 64.
- Continue picking of cotton and harvesting of pulses on bright sunny days.

## Rajasthan

- Light to moderate rainfall occurred at a few places in Bikaner & Udaipur divisions and at isolated places in rest divisions of the State.
- Rain/thundershowers are likely at a few places over the East Rajasthan and at isolated places over West Rajasthan.

## Advisories

- As there was no significant rainfall in most of the districts during last week except in Banswara and Dungarpur in East Rajasthan and rain/thundershowers are likely only at a few / isolated places for the next three days, apply irrigation to *kharif* crops viz., bajra, jowar, maize, guar, moong, moth bean and urd. Postpone irrigation in the above districts as there was sufficient rainfall during last week.
- Undertake intercultural operations in *kharif* crops to keep the field weed free. Intercultural operations may be undertaken on a non rainy day in East Rajasthan
- Monitor *desi* and *American* cotton for sucking pests. If the pests population crosses ETL, spray Endosulphan @ 1.25 liters / ha to control the pest. Spraying of chemical may be undertaken on a non rainy day in East Rajasthan.

## Uttar Pradesh

- Rain occurred at many places in Varanasi division and at few places in Allahabad division and weather was mainly dry in remaining divisions of U.P. on 24<sup>th</sup> September. Monsoon was vigorous over east UP. Rain occurred at Most places in Allahabad, Faizabad, Gorakhpur, Varanasi Lucknow, Kanpur, Jhansi divisions and weather was mainly dry in remaining divisions of U.P. on 25<sup>th</sup> September. Monsoon was vigorous over east UP and active in west UP. Rain occurred at most places in Faizabad, Bareilly Gorakhpur Moradabad Lucknow, Kanpur, Jhansi and Meerut division and at few places in Varanasi division and weather was mainly dry in remaining divisions of U.P. on 26<sup>th</sup> September.
- Rain/thundershowers are likely at many places over West Uttar Pradesh during the next 24 hours and decrease thereafter. Rain/thundershowers are likely at many places over East U.P.

**Warning:** Isolated heavy to very heavy rainfall is likely over West Uttar Pradesh during next 24 hrs.

## Advisories

- As rain/thundershowers are likely at many places over West Uttar Pradesh during the next 24 hours and decrease thereafter and rain/thundershowers are likely at many places over East U.P, postpone irrigation to the crops. Provide adequate drainage facilities in East U.P.

- 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 peepal around the field to catch white grub and collect insects and to destroy, spray the solution of 0.5% Monocrotophos after current spells of rain.
- Maintain 2.5- 3.0 cm water level in transplanted paddy and undertake top dressing of urea after current spells of rain.
- To control Anthracnose disease in mango garden, spray the solution of Copper Oxychloride 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 after current spells of rain.
- Monitor rice for gundhi bug and if the pest population crosses ETL, dust Malathion 5% @ 20 kg/ha after current spells of rain.

### **Himachal Pradesh**

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

### **Advisories**

- As there was no significant rainfall over 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 crops.
- Maintain 3 – 5 cm water in rice field. Care should be taken to avoid making holes by rats. If holes are seen, they should be plugged so that water may stand in the 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 to control the disease.
- Harvest already matured fruits of apple.
- Start harvesting matured crop of potato. Haulm cutting is recommended to the area where crop is being grown for seed potato and occurrence of late blight disease is apprehended.
- Start harvesting of matured crop of maize. Grains having moisture content below 30% can be harvested and should not be allowed to stand in the field any more to avoid the damage by birds or animals.

### **Uttarakhand**

- Moderate to heavy rain was recorded at many places on 26<sup>th</sup> September, while light to moderate rain was recorded at a few places on 20<sup>th</sup> & 22<sup>nd</sup> September, moderate rain was recorded at isolated places on 21<sup>st</sup> September while it remained mainly dry on rest of the days of the week. Sky remained partly cloudy to mainly cloudy during the period.
- Rain/thundershowers are likely at many places over the State during the next 24 hours and decrease thereafter.

**Warning:** Isolated heavy to very heavy rainfall is likely over the State during next 24 hrs.

### **Advisories**

- As rain/thundershowers are likely at many places over the State during the next 24 hours and decrease thereafter, postpone irrigation to sugarcane, potato, and ginger. Provide adequate drainage facilities in the standing crops.
- 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 after current spells of rain.
- 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 after current spells of rain to control the pest.
- Monitor ginger for rhizome rot and collect and destroy the affected plants completely to prevent further damage.

### **Jammu & Kashmir**

- 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 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.
- Monitor chilies and bhindi for white flies and thrips, undertake spraying of malthion @0.005%or Endosulfan 35EC @0.07%.
- Attack of false smut is reported in rice. Rouge out the affected crops and destroy completely to prevent further spread.

### **Delhi**

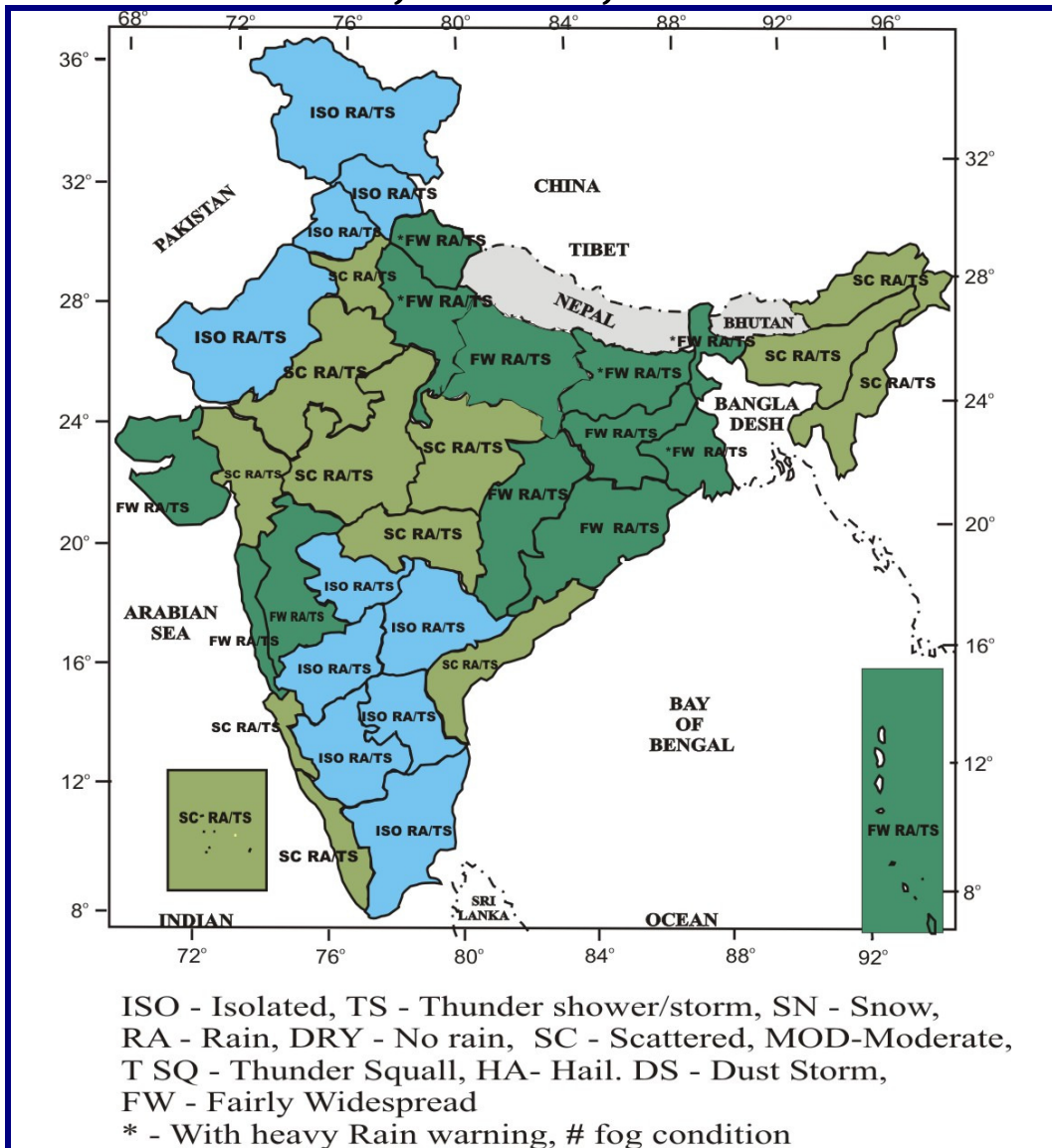
- Very light rain occurred at many places during the period.
- Rain/thundershowers are likely at a few places over the State.

#### **Advisories**

- As there was no significant rainfall in the State during last week and rain/thundershowers are likely only at a few places over the State for the next three days, apply irrigation to vegetables, arhar, maize and bajra.
- Maintain 3 – 5 cm water in the rice field.
- Prepare land and undertake transplanting of 5 – 6 weeks old seedlings of vegetables.
- Start nursery sowing of cabbage variety like Snowball and continue sowing varieties of raddish like Pusa Desi and Rasmi, Carrot like Pusa kashar and Turnip variety like Pusa Kanchan.
- 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 30th September 07*



## *Salient weather features for the week ending 26/09/07*

### **METEOROLOGICAL ANALYSIS**

- Last week's well marked low pressure area over West-Central Bay of Bengal and adjoining Coastal Andhra Pradesh lay over West-Central Bay of Bengal and adjoining north coastal Andhra Pradesh & south coastal Orissa on 20<sup>th</sup> September. It lay over West-Central and adjoining North-West Bay of Bengal off south Orissa - north Andhra Pradesh coasts in the morning of 21<sup>st</sup> September and concentrated into a depression and lay centered at 1730 hours IST of 21<sup>st</sup> September 2007 over the same area near Lat. 18.0 °N and Long 86.5 °E, about 230 km southeast of Puri. The system moved north-northwestward and lay centered at 0830 hours IST of 22<sup>nd</sup> September 2007 over North-West and adjoining West-Central Bay of Bengal near Lat. 19.0 °N and Long 86.0 °E, about 100 km southeast of Puri. It then moved northward and crossed Orissa coast near Puri around 1830 hours IST of 22<sup>nd</sup> September. It then moved northwestward and lay centered at 0830 hours IST of 23<sup>rd</sup> September over Interior Orissa near Angul. It further moved north-northwestward and lay centered at 0830 hours IST of 24<sup>th</sup> September over north Chhattisgarh, close to Ambikapur. The system weakened into a well marked low pressure area and lay over north Chhattisgarh and adjoining East Madhya Pradesh at 1730 hours IST of 24<sup>th</sup> September. The well marked low pressure area lay over East Uttar Pradesh and neighbourhood in the morning of 25<sup>th</sup> September. It lay as a low pressure area over the same region in the evening of 25<sup>th</sup> September and became less marked on 26<sup>th</sup> September. However, the

associated upper air cyclonic circulation lay over West Uttar Pradesh and neighbourhood extending upto mid-tropospheric level on 26<sup>th</sup> September.

- An upper air cyclonic circulation lay over North-East Arabian Sea off Gujarat and north Maharashtra coasts on 22<sup>nd</sup> September 2007. Under its influence, a low pressure area formed over the same region on 23<sup>rd</sup> September. It persisted over North-East Arabian Sea off Saurashtra coast and became well marked on 24<sup>th</sup> September. It lay as a low pressure area over North-East Arabian Sea and adjoining areas of Gujarat and Konkan on 25<sup>th</sup> September and over north Gujarat region and adjoining southwest Madhya Pradesh on 26<sup>th</sup> September.
- An off-shore trough extended from Konkan coast to Kerala coast on 20<sup>th</sup> September and from south Gujarat coast to Kerala coast thereafter.
- A trough in lower tropospheric levels ran from north Pakistan to north Arabian Sea during first two days of the week and became less marked thereafter. However, a trough in mid-tropospheric levels ran from north Pakistan to north Arabian Sea during 23<sup>rd</sup> to 26<sup>th</sup> September.
- A cyclonic circulation lay over north Pakistan and adjoining Jammu & Kashmir in lower tropospheric levels on 24<sup>th</sup> September and over Jammu & Kashmir & neighbourhood on 25<sup>th</sup> September. It moved away eastwards thereafter.
- The axis of the monsoon trough ran to the south of its normal position during many days of the week.

## **RAINFALL**

Under the influence of the above systems:

- Widespread/ fairly widespread rainfall with scattered/isolated heavy to very heavy falls occurred over Coastal Andhra Pradesh and Telangana during 20<sup>th</sup> to 23<sup>rd</sup>, over Orissa during 20-24<sup>th</sup>, over Gangetic West Bengal during 22<sup>nd</sup> to 25<sup>th</sup> September, over Jharkhand on 24<sup>th</sup> & 25<sup>th</sup> September, over Bihar & East Uttar Pradesh on 25<sup>th</sup> September and 26<sup>th</sup> September and over West Uttar Pradesh and Uttarakhand on 26<sup>th</sup> September.
- Widespread/ fairly widespread rainfall occurred over Gujarat State, Konkan & Goa, Coastal Karnataka, Kerala and Lakshadweep during many days of the week.
- Fairly widespread/ scattered rainfall occurred over Madhya Pradesh and Chhattisgarh during many days of the week.
- Fairly widespread/ scattered rainfall also occurred over Andaman & Nicobar Islands and remaining parts of Maharashtra and south peninsula outside Tamil Nadu and Rayalaseema during many days of the week. Isolated/ scattered rainfall occurred over Northwest India, Rajasthan Tamil Nadu and Rayalaseema during many days of the week.
- Weather was mainly dry or isolated rainfall occurred over northeastern states and adjoining Sub-Himalayan West Bengal & Sikkim during many days of the week.

## **RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 26<sup>TH</sup> SEPTEMBER, 2007)**

Rainfall was excess/normal in 22, deficient/scanty in 14 out of 36 meteorological sub-divisions (Actual: 50.8 mm, Normal: 36.2 mm and Departure: +40%).

## **CUMULATIVE SEASONAL RAINFALL (1ST JUNE TO 26<sup>TH</sup> SEPTEMBER, 2007)**

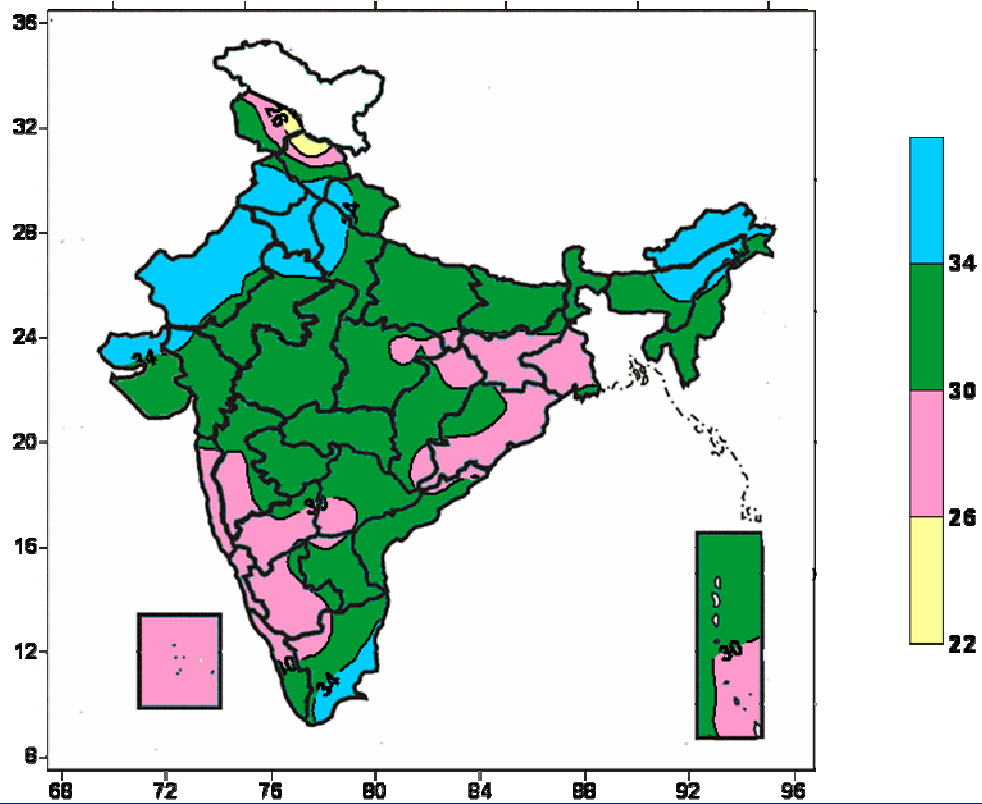
Rainfall was excess/normal in 30 and deficient in 6 out of 36 meteorological sub-divisions. (Actual: 914.7 mm, Normal: 874.6 and Departure: +5%).

## **OUTLOOK FOR THE WEEK ENDING ON 3<sup>RD</sup> OCTOBER, 2007.**

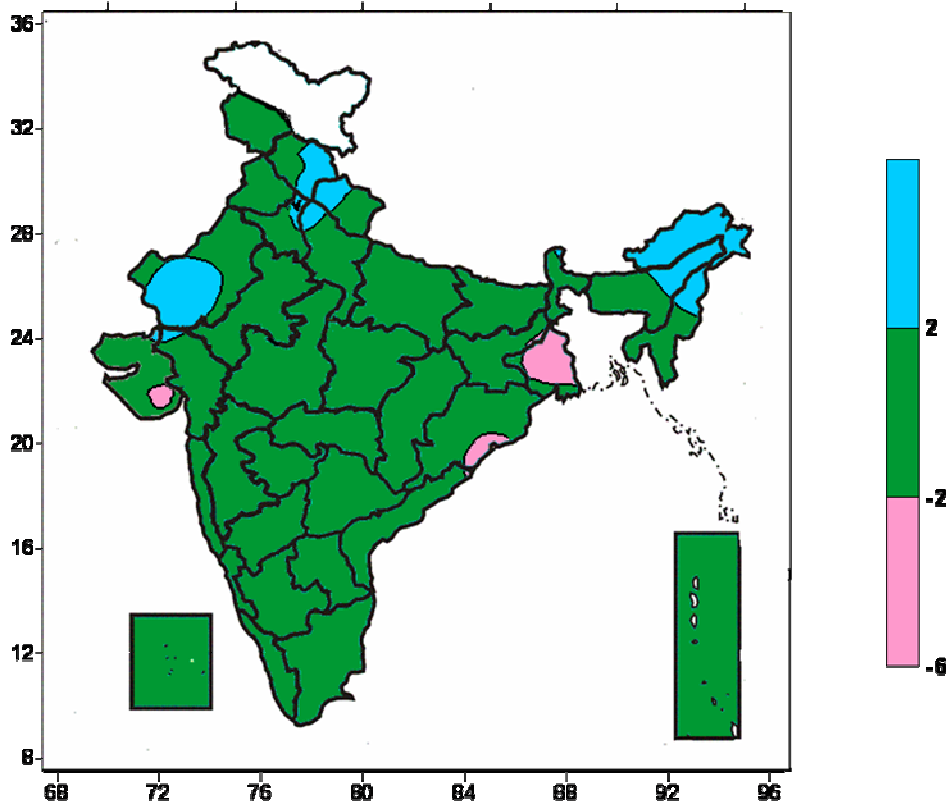
- Scattered to fairly widespread rainfall activity is likely over east and adjoining central India during first half of the week and decrease thereafter.
- Withdrawal of southwest monsoon is likely to commence from parts of Rajasthan and northwest India during first half of the week.

*Contour maps for the week ending 26th September, 2007*

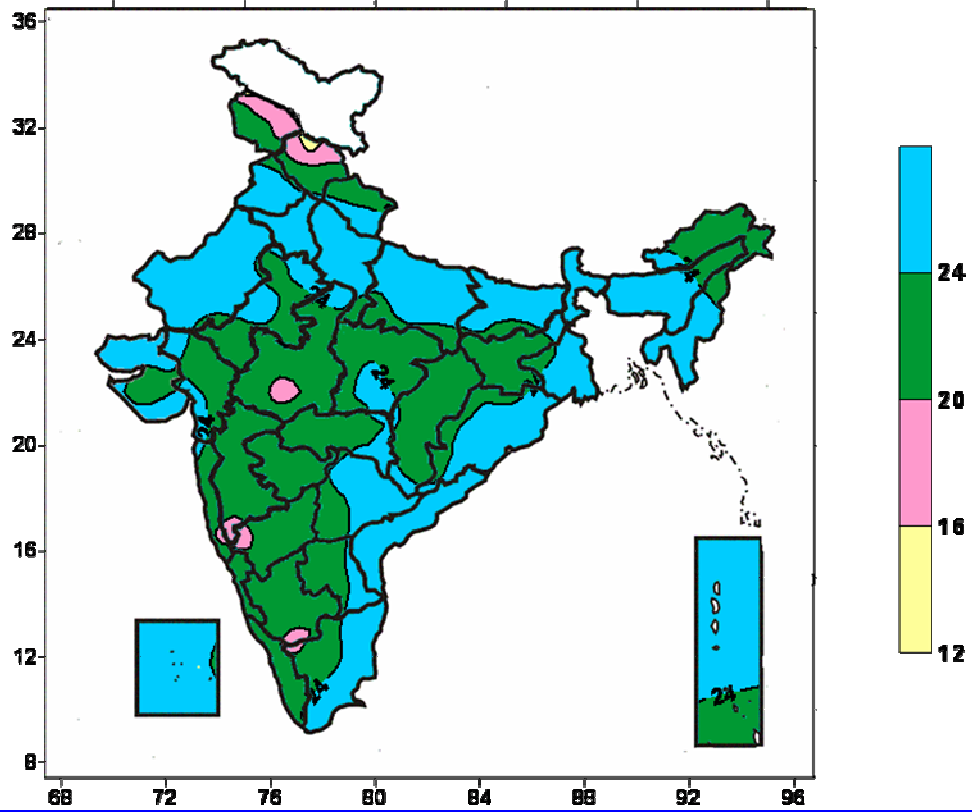
**Actual Mean Maximum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 26.09.07**



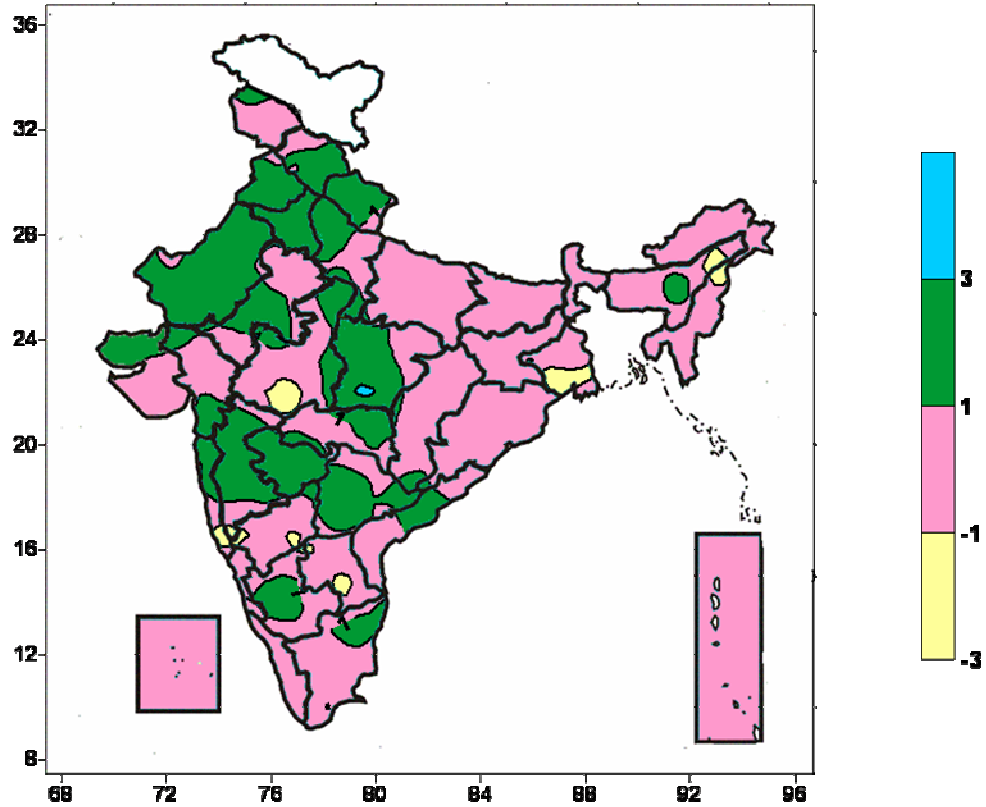
**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly In India for the week ending 26.09.07**



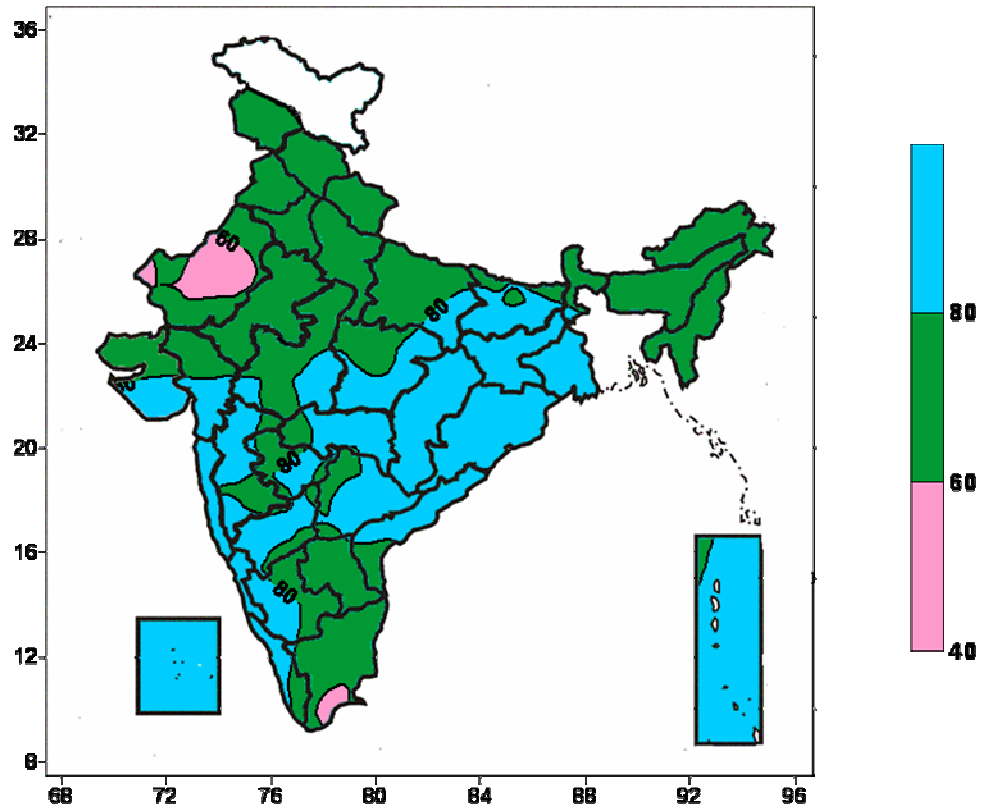
### Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 26.09.07



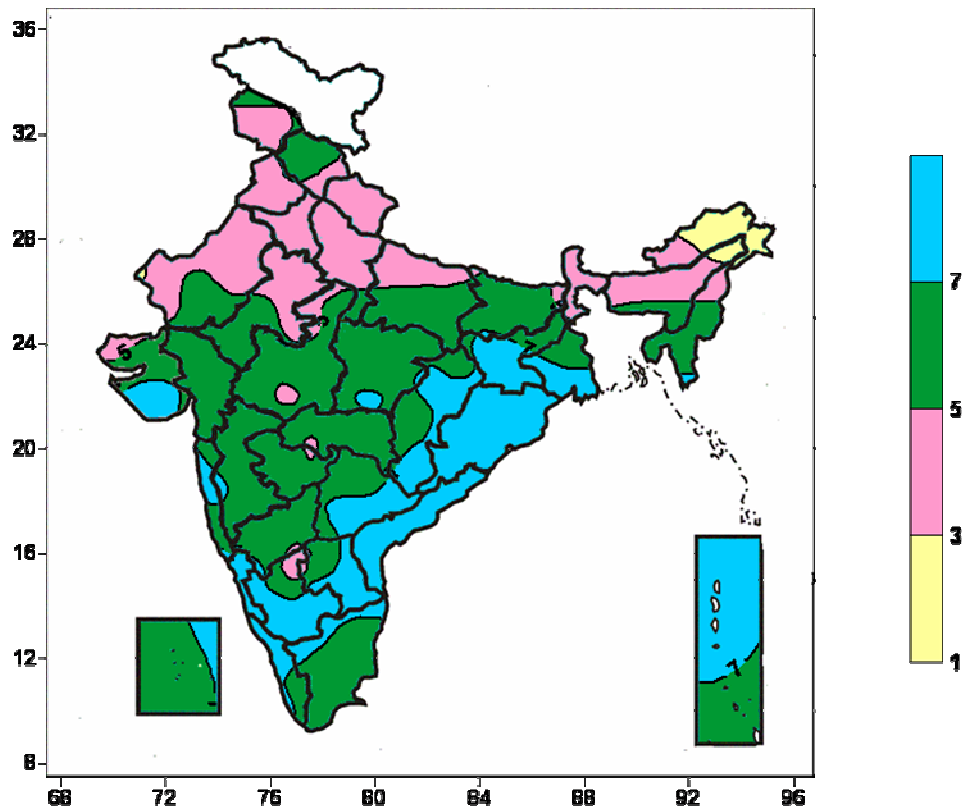
### Minimum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 26.09.07



Relative Humidity (%) over India for the week ending 26.09.07

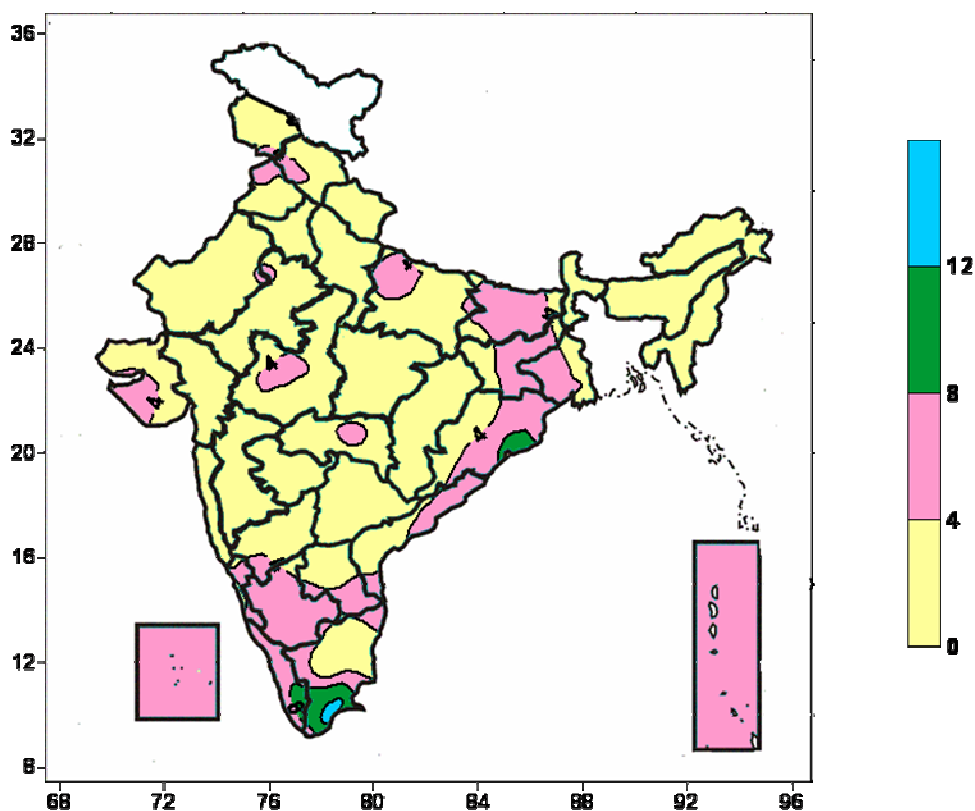


Cloud amount (okta) over India for the week ending 26.09.07





### Wind speed (knots) over India for the week ending 26.09.07



### *Desert Locust Forecasting*



Temperature (degree Celcius)							
Station Name	20.09.07	21.09.07	22.09.07	23.09.07	24.09.07	25.09.07	26.09.07
<b>Amritsar</b>	28.5	29.0	29.0	26.5	26.5	27.5	27.0
<b>Barmer</b>	34.0	34.5	34.0	31.5	28.5	29.0	30.0
<b>Sriganganagar</b>	33.5	32.5	32.0	29.0	29.0	24.5	32.0
<b>Jaisalmer</b>	33.0	34.0	34.5	-	27.5	29.5	29.5
<b>kota</b>	31.5	30.5	30.5	30.0	29.5	28.5	25.0
<b>Deesa</b>	31.5	30.5	31.0	31.0	30.5	30.5	28.5
<b>Churu</b>	-	-	-	-	-	-	-

RAINFALL							
-	20.09.07	21.09.07	22.09.07	23.09.07	24.09.07	25.09.07	26.09.07
<b>Amritsar</b>	0	8.4	0	0	0	0	0
<b>Barmer</b>	0	0	0	21.0	13.0	0	0
<b>Sriganganagar</b>	0	0	0	54.2	0.5	2.9	0
<b>Jaisalmer</b>	0	0	0	0	0	0	0
<b>Kota</b>	0	4.8	1.0	0	0	0	0.7
<b>Deesa</b>	0	1.4	0	0	0	1.6	0
<b>Churu</b>	0	0	0	2.3	0	0	0

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	Flowering / grain formation	Seed development / maturity	Cob formation
<b>Bajra</b>	<b>Toria</b>			
Grain formation	Sowing			

Haryana				
Sugarcane	Horticultural crops	Kharif Pulses	Cotton	Paddy
Vegetative	Vegetative	Harvesting	Picking	Grain formation / maturity
<b>Kharif Groundnut</b>				
Vegetative				

### Himachal Pradesh

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

### 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	Grain formation / maturity
<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 / development	Vegetative	Flowering / boll formation		

### Uttar Pradesh

Sugarcane	Kharif Vegetables	Mango	Rice	Toria
Vegetative	Flowering / fruiting	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	Flowering / milking
<b>FingerMillet/ Amranthus</b>	<b>Mango/Litchi</b>	<b>Toria / pea</b>		
Flowering / grain formation	Seedling	Sowing		

### Assam

Early winter vegetables	Sugarcane	Arhar	Sali rice	Black Gram & Green Gram
Land preparation & sowing	Maturity / harvesting	Vegetative	Tillering / vegetative	Vegetative
<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	Tillering / vegetative

### 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
<b>Pea</b>	<b>Potato</b>		
Sowing	Planting		

### Sikkim

Maize	Orange	Vegetables	Large Cardamom	Ginger
Harvesting	Fruiting / maturity New planting in some places	Nursery sowing	Capsule maturity/ harvesting	Flowering
<b>Rice</b>				
Active tillering / panicle initiation				

### West Bengal

Sugarcane	Jute	Aus rice	Groundnut	Arhar
Vegetative	Maturity / harvesting	Maturity	Pegging / pod formation	Vegetative
<b>Aman rice</b>				
Tillering / panicle initiation				

### Chattisgarh

Sugarcane	Black gram, Green Gram	Soybean	Kharif Rice	Maize
Vegetative	Flowering / pod formation	Flowering / pod formation	Tillering / booting / panicle initiation	Vegetative
<b>Groundnut</b>				
Flowering / pegging / pod formation				

### Gujarat

Sugarcane	Kharif Rice	Castor	Kharif Groundnut	Kharif Cotton
Cane development	Panicle initiation	Vegetative	Peg / pod formation	Flowering / boll formation
<b>Kharif Maize</b>	<b>Kharif Bajra</b>			
Cob formation	Flowering / milking			

### 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	Flag leaf initiation
<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>
Flowering / grain formation	Grain maturity / harvesting	Pegging / pod formation	Flowering / head formation	Pod maturity / harvesting

<b>Kharif Cotton</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Kharif Tur</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Kharif Soyabean</b> (Madhya Maharashtra, Marathwada & Vidarbha)	<b>Rabi Jowar</b>	<b>Rabi safflower</b>
Flowering / boll formation	Vegetative growth / primary branching	Pod formation / pod maturity	Sowing	Sowing.

**Madhya Pradesh**

<b>Sugarcane</b>	<b>Kharif crops</b> (maize, urd and jowar)	<b>Kharif rice</b>	<b>Soyabean</b>	<b>Cotton</b>
Grand growth	Grain formation	Flowering	Pod formation	Flowering

**Orissa**

<b>Kharif vegetables</b>	<b>Kharif rice</b>	<b>Sugarcane</b>	<b>Arhar</b>	
Vegetative / fruiting	Flowering / grain formation	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>
Flowering / grain formation	Harvesting	Flowering / boll formation	Pegging / pod formation	Harvesting

**Karnataka**

<b>Sugarcane</b> (Ratoon crop)	<b>Kharif Sunflower</b>	<b>Groundnut</b>	<b>Kharif maize &amp; Jowar</b>	<b>Cotton</b>
Grand growth	Grain formation	Peg formation	Milking / grain formation	Boll maturity / picking

**Kerala**

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

**Tamil Nadu**

<b>Rice</b> ( <i>Kuruvai/Samba</i> )	<b>Sugarcane</b> (Early, Mid and Late season)	<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	Early vegetative / vegetative	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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