



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

Issued by

Agricultural Meteorology Division, India Meteorological  
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(For the period 22<sup>nd</sup> May to 26<sup>th</sup> May, 2008)

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

## *Forecast for the 2008 Monsoon Onset Over Kerala*

The onset forecast model suggests that the monsoon onset over Kerala in 2008 is likely to be on 29<sup>th</sup> May with a model error of  $\pm 4$  days.

### *Agromet Advisory*

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

#### **Punjab**

- Rain/thundershowers are likely at many places with thunder squall/hailstorm over the State during next 24 hrs and at a few places thereafter.

#### **Advisories**

- As rain/thundershowers are likely at many places with thunder squall/hailstorm over the State during next 24 hrs and at a few places thereafter, postpone irrigation to the standing crops.
- Monitor the sugarcane crop for thrips and *Pyrilla* & if exceeds economic threshold level, spray 1 Endosulfan 50 EC @ 350 m 600 in liter of water/acre after spells of rain.
- Apply 15 kg Nitrogen/ha after spells of rain in early sown sunflower hybrids.
- Continue sowing of summer moong and mash.
- Harvesting of wheat may be continued on bright sunny days.
- Continue sowing of radish.

#### **Haryana**

- Rain/thundershowers are likely at many places with thunder squall/hailstorm over the State during next 24 hrs and at a few places thereafter.

#### **Advisories**

- As rain/thundershowers are likely at many places with thundersquall/ hailstorm over the State, postpone irrigation to sugarcane, oilseeds, pulses, and Horticultural crops.
- Monitor the sugarcane crop for thrips and pyrilla & if exceeds economic threshold level, spray 350 ml Endosulfan 50 EC in 600 liter of water/acre after spells of rain.
- Apply 15 kg Nitrogen/ha to sunflower hybrids after spells of rain.
- Continue sowing of summer moong and mash.
- Undertake sowing of radish.

- Farmers are advised to prepare the fields for cotton sowing and to start the sowing of desi cotton with varieties HD-107, HD-123, HD-324 and AAH-1 and american cotton with varieties HS- 6 and H- 117 with certified seeds. Treat the seeds before sowing.

## **Rajasthan**

- 14.6 at Pilani on 19.05.08
- Rain / thundershower occurred at a isolated, places in Jaipur, division and partly cloudy sky in rest Divisions of the state.
- Rain/thunderstorm are likely at a few places over northeast Rajasthan and isolated over rest Rajasthan.

## **Advisories**

- As there was no significant rainfall during last week and rain/ thundershowers are likely at a few places over northeast Rajasthan and isolated over rest of Rajasthan during next three days, apply irrigation to vegetable crops.
- Monitor *summer* tomato, bhindi and chilli from collar rot disease in and around Jaipur, Ajmer, Dausa and Tonk and if the damage crosses ETL, apply Blitox-50 @ 8 kg per hectare near roots and immediately provide light irrigation. Spraying of chemicals may be undertaken on a non rainy day in northeast Rajasthan.
- Continue land preparation and sowing of *summer* cotton in and around Jaipur, Ajmer, Dausa and Tonk. Select among RG-8 (170-180 days, Desi), Bikaneri Nerma (190-200 days, American) and RST-9 (190-200 days, American).
- Undertake summer ploughing after the harvest of wheat, barley and gram in and around Alwar, Dholpur, Bharatpur, Karauli and Sawai Madhopur to conserve summer rains and to kill insect pupae and pathogens.
- Monitor bhendi for fruit borer. To control, spray Endosulfan 35 EC @ 1.5 ml per litre water. Spraying of chemicals may be undertaken on a non rainy day in northeast Rajasthan.

## **Uttar Pradesh**

- .Rain/thundershower is likely at many places accompanied with thundersquall over east Uttar Pradesh and at west Uttar Pradesh many places accompanied with thundersquall during next 24 hrs and at a few places thereafter

## **Advisories**

- As rain/thundershower is likely at many places accompanied with thundersquall over Uttar Pradesh, postpone irrigation to vegetable, sugarcane, summer pulses and sunflower crops.
- Harvest the matured winter vegetables.
- To control internal rotten disease in mango, spray the solution of 5-6 gm Borax/litre of water after spells of rain.
- Weeding, hoeing, intercultural operations and application of fertilizers may be done after spells of rain in summer pulse and sunflower crops.

## **Himachal Pradesh**

- .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 / thundershower is likely only at a few places over the State for next three days, apply irrigation to vegetables, onion and potato.
- Prepare land and transplant summer vegetables like tomato, brinjal, capsicum and chillies and sow ageti bhindi (var. Prabhini kranti, Arka anamika), cucumber, bitter gourd in the field.
- To have crop of raddish in summer sow Pusa Chetakin or early minowwhite varieties.
- It is time for sowing of nursery in areas where summer vegetables like brinjal, Shimla mirch, pepper and tomato are taken as rainfed crop during rainy season. The nursery is ready by 15<sup>th</sup> June and can be successfully transplanted during second fortnight of June before onset of monsoon. Before sowing of nursery treat soil with 2% folidol dust mixed with 1 kg sand and mix in one kanal area.
- Start land preparation and nursery sowing of rice. The nursery should be sown four weeks before the time of transplanting. Tall and dwarf varieties should be sown between 24<sup>th</sup> May to 8<sup>th</sup> June and Basmati varieties should be sown between 24<sup>th</sup> May to 4<sup>th</sup> June.
- Start preparation of land for sowing of maize by ploughing and mixing biological manures properly.
- Red pumpkin beetle and fruit fly may appear in the already transplanted cucurbitaceous crops. If noticed, spray malathion / endosulphon @ 0.15 percent on a non-rainy day at 10 days interval to control the insect.

### **Uttarakhand**

- Rain/thundershower is likely at many places accompanied with thundersquall/hailstorm over the State during next 24 hours and at a few places thereafter.

### **Advisories**

- As rain/thundershowers is likely at many places accompanied with thunder squall/hailstorm over the State during next 24 hours and at a few places thereafter, postpone irrigation to sugarcane, potato and orchard trees.
- Undertake intercultural operations in orchards and sugarcane to keep the field weed free.
- Continue picking mango and litchi depending upon market demand.
- Monitor mango trees for powdery mildew and litchi for mite incidences. Undertake need based plant protection measures after spells of rain.

### **Jammu & Kashmir**

- Isolated rain / thundershowers likely over Jammu & Kashmir.

### **Advisories**

- As rain/thundershowers is likely at isolated places only over Jammu & Kashmir during next three days, apply irrigation to the standing crops.
- Preparation of seed beds for early raising of vegetable seedlings such as capsicum, chillies, brinjal, paprika etc. and filling of polybags for sowing of cucurbits under polyhouse conditions may be continued in Kashmir division. Also undertake sowing of spinach, methi and coriander and planting of garlic in Kashmir division.
- Continue sowing of maize in the main field and rice in the nursery in Kashmir division.
- Undertake top dressing of nitrogen in cauliflower, knoll-khol, potato, spinach, methi and garlic @ 60, 50, 20, 20 and 20 kg/ha in Jammu division.

- Rouge out virus effected plants from brinjal, tomato, cauliflower and cabbage crop in Jammu division.
- Complete harvesting wheat, barley and oats in Jammu division. Continue harvesting wheat in Kashmir division.
- Monitor cucurbits for fruit fly and spray Endosulfan 35EC @ 2ml/litre of water if the damage crosses ETL in Jammu division.
- Undertake summer ploughing in order to destroy the weed seeds, pathogens, and insect eggs in Jammu division.

## **Delhi**

- Light to moderate rain occurred from 19<sup>th</sup> to 21<sup>st</sup> at most places.
- Rain/thundershowers are likely at many places accompanied with thunder squall / hailstorm over the State during next 24 hrs and at a few places thereafter

## **Advisories**

- As there was excess rain during last week and rain / thundershower is also expected over the State for next three days, postpone irrigation to vegetables crops. Also postpone intercultural operation and application of fertilizer.
- There is chance of occurrence of powdery mildew in cucurbitaceous crops. If noticed, apply kerathane @ 1 litre or wettable sulphur @ 3 kg / ha dissolved in 1000 litres of water.
- Weather condition is favourable for yellow mosaic in groundnut. If noticed, apply rogor or monocrotophos @ 1.25 litres / ha dissolved in 800 – 1000 litres of water.
- Apply pesticides after current spells of rain.
- Prepare land and undertake sowing of arhar utilizing recent rain. Select varieties from UPAS-120 and Manak.
- Prepare land and undertake nursery sowing of rice. Select varieties from PR-109, Jaya and HKR-120.

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

### **Kerala**

- Rain / thundershowers occurred at many places in Kerala on 21<sup>st</sup> and at isolated places on 19<sup>th</sup> & 20<sup>th</sup>.
- Rain/thundershowers are likely at a few places over Kerala

### **Advisories**

- As there was no sufficient rainfall in most of the districts over the State during last week and rain/thundershowers is likely to occur at a few places during next three days, apply irrigation to plantation crops viz., coconut, arecanut, rubber and banana.
- Attack of foot rot is reported in pepper nursery. Spray Bordeaux mixture @ 1% on a non rainy day to control the disease.
- Attack of bud rot, Eriophoid mite and rhinoceros beetle is reported in coconut. To control bud rot, apply 1% Bordeaux mixture on a non rainy day. As a prophylactic measure to prevent Eriophyid mite attack, spray 2% neem oil + garlic emulsion in the crown and bunches (2<sup>nd</sup> to 7<sup>th</sup>) on a non rainy day avoiding unpollinated inflorescence. Fill the leaf axils with 25 gm. Sevidol 8 G and fine sand 200 gm on a non rainy day to control rhinoceros beetle.

- Attack of mahali disease is reported in arecanut. Apply 1% Bordeaux mixture on a non rainy day to control the disease.
- Continue land preparation and nursery preparation of *virippu* rice and pepper.
- Planting of coconut seedlings can be done in south zone. Planting may be done in the pits of dimension 1m x 1m x 1m at spacing of 7.6 x 7.6 m (approximately 70 palms per acre). Select quality seedlings with at least 10 – 12cm collar girth and 6 - 8 leaves.

### **Tamilnadu**

- Isolated rain/ thundershowers likely over the State.

### **Advisories**

- Apply irrigation to groundnut, sugarcane and pulse crops as there was no significant rainfall during last week and rain/ thundershowers likely at isolated places over State.
- Monitor sugarcane for shoot borer and if the pest population crosses ETL, undertake spraying of Endosulfan 35 EC or Monocrotophos 40 EC @ 1.5 litres/ha. Release parasite @ 1 cc per time for stem borers after 15 days of spraying. Release parasite @ 1 cc per time for the control of stem borers.
- Continue land preparation and nursery sowing of *sornavari* rice. Treat the Seeds first with *Pseudomonas florescence* @ 10g/ kg of seed then with *Azospyrillum* @ 600gms + Phosphobacteria @ 600gms/Ha of seed before 30minutes on the day of sowing.
- Undertake summer ploughing in order to conserve soil moisture and destruction of pupa and larvae of insects.
- Undertake spraying of DAP @ 2.5 kg/500 litres of water in groundnut to enhance pod setting
- Continue picking of cotton in and around Kannivadi region. Picking may be done during early morning hours to maintain the quality of kapas.
- Monitor cotton for sucking pests and undertake spraying of Monocrotophos @ 200 ml/ac in and around Kovilpatty.
- Start harvesting matured pulse crops on bright sunny days.

### **Karnataka**

- *Rainfall* occur at few places on 21<sup>st</sup> May, and at isolated places on all the remaining days over South Interior Karnataka; rainfall occurred at isolated places on all the days over Coastal Karnataka & North Interior Karnataka.
- Rain/thundershowers are likely at a few places over Coastal Karnataka and isolated over rest of the State.

### **Advisories**

- As there was no sufficient rainfall in the State during last week and rain/thunder showers are likely at a few places over Coastal Karnataka and isolated over rest of the State for the next three days, apply irrigation to sugarcane.
- Undertake intercultural operations and propping in sugarcane to prevent the crop from lodging. Monitor the crop for white woolly aphids and release predators like *Dipha* sp, adopt wider spacing, inter-cropping with soyabean and pulses of short duration as plant protection measures against woolly aphids. Plant protection measures may be undertaken on a non rainy days in Coastal Karnataka.

- Continue harvesting matured crops of rice and sunflower on bright sunny days.
- Continue land preparation and sowing of early *kharif* crops like green gram, black gram, jowar and sunflower.

### **Andhra Pradesh**

- Isolated rain/thundershowers are likely over the state.

### **Advisories**

- As there was no significant rainfall in the state during last week and isolated rain/thundershowers are likely to occur for the next three days, apply irrigation to sugarcane and chillies.
- Continue harvesting the rice and groundnut crops on bright sunny days.
- The incidence of thrips, dieback, *Cercospora* leaf spot, *Choanephora* blight and powdery mildew is noticed in chillies. To control thrips spray Fipronil @ 2.0 ml per litre of water. To control dieback spray Captan @ 1.5 g per litre of water. To control *Cercospora* leaf spot, spray Mancozeb @ 2.5 g or Carbendazim @ 1 g per litre of water.
- The deficiency of Zinc and Boron is noticed in Chilli. To correct the zinc deficiency, spray ZnSo<sub>4</sub> @ 2g per litre of water. To correct boron deficiency, spray boron @ 1.5 g per litre of water.
- The incidence of wooly aphid, *Pyrilla*, scale insects and early shoot borer is noticed on sugarcane in Nizamabad district. To control wooly aphids spray Malathion @ 3 ml or Dimethoate @ 2 ml or Acephate @ 1 g per litre of water. If severity is more, spray Acephate @ 1 g + Dichlorvas @ 1 ml per litre of water. To control *Pyrilla* spray Endosulfan or Malathion @ 2 ml per litre of water. To control scale insects, spray Malathion or Dimethoate @ 2 ml per litre of water. To control early shoot borer, spray Endosulfon @ 2ml per litre of water.
- Prevailing weather conditions are congenial for the spread of anthracnose in mango. To control anthracnose spray Carbendazim @ 1 g or Copper- Oxy-Chloride @ 3 g per litre of water.

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

### **Assam**

- Light to moderate rain occurred at many places on 19<sup>th</sup>, 20<sup>th</sup> and 21<sup>st</sup> with isolated heavy to heavy falls on 20<sup>th</sup> and with isolated rather heavy falls on 19<sup>th</sup> and 21<sup>st</sup> over the state.
- Rain/thundershowers are likely **at many places** over the State.

### **Advisories**

- As rain/thundershowers are likely at many places over the state for next three days, postpone irrigation to the crops.
- Maintain 3 – 5 cm of water in early *ahu* rice and regular *ahu* rice field.
- Prepare land undertake transplanting of transplanted regular *ahu* rice. 7 –10 days before uprooting of the *ahu* rice seedlings from the nursery, apply Carbofuran @ 3 g / sq. m. area in the seedbed to protect the seedlings from stem borer, gall midge, leaf folder etc. in the main

field. Alternatively root-dip treatment may also be done. For this the uprooted seedlings are to be washed and root portion of the seedling is dipped in 0.02% solution of Chloropyrophos (1 ml in 1 litre of water) along with 1% of urea for three hours.

- As maize crop is very susceptible to water logging, provision of surface drainage should be made in the field.
- Provide mechanical support to the sugarcane crops to prevent lodging.
- Infestation of pest and disease such as fruit fly insect and powdery mildew disease is reported in summer vegetables in some localities.
- For control of fruit fly in summer vegetables, malathion 50 EC @ 2.5 ml per litre of water should be applied. Also for control of disease such as powdery mildew apply bavistan @ 2.5 ml / litre of water or Diathine Z-78 or Captaf @ 2 g / litre of water.
- There is mild chance of attack of hairy caterpillars, semi-lopper and stem weevil in jute. To control these pests, Fenitrothion 50 EC @ 1ml per litre of water or Endosulfan 35 EC @2ml per litre of water should be sprayed.
- There is mild chance of attack of stem borer in maize due to favourable weather condition. If the pest population crosses economic threshold level, spray fenitrothion 50 EC @ 2 ml / litre of water.
- Apply pesticides after current spells of rain.

### **Arunachal Pradesh**

- Rain/thundershower likely at many places over Arunachal Pradesh.

### **Advisories**

- As rain / thundershowers are likely at many places over the state for next three days and fairly widespread rainfall activity is likely to continue after that, postpone irrigation and intercultural operation to the crops.
- Prepare land preparation and continue transplanting of wet seeded rice. Maintain spacing of 20 cm X 10 cm.

### **Bihar**

- Light to moderate rain occurred at many places on 20.5.08 and at few places on 19<sup>th</sup> & 20<sup>th</sup> and isolated places on 16<sup>th</sup> & 17<sup>th</sup> & 18<sup>th</sup> May.
- Rain/thundershower is likely at many places accompanied with thunder squall over the State.

### **Advisories**

- As rain / thundershowers are likely at many places over the state for next three days, postpone irrigation and intercultural operation to the crops.
- Maintain 3– 5 cm standing water in the summer rice field.
- There is mild chance of attack of red spider mite in vegetables. If attack crosses economic threshold level, for controlling the red spider mite spray the crop after current spells of rain with sulfex @ 3kg/ha or share @ 3kg/ha in 700 litre of water.
- Monitor the crop for shoot borer incidence in sugarcane. If attack crosses economic threshold level, apply pesticides after current spells of rain.

### **Jharkhand**

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

### **Advisories**

- As rain/thundershower is likely at a few places over the State for next three days, apply irrigation to vegetable, summer moong and til.
- Maintain 3 – 5 cm of standing water in the summer rice field.
- In case of attack of gundhibug in summer rice, spray Endosulphan with 4% dust or 10 Kg. Indolphos with 1.5% dust per acre.

### **Sikkim**

- Rain/thundershower is likely at many places accompanied with thundersquall over the State

### **Advisories**

- As rain/thundershower likely many places accompanied with thundersquall over the state for the next three days, postpone irrigation to orange, large cardamom, early sown maize and vegetable crops. Arrange for drainage facilities to avoid water stagnation. after spells of rain
- Monitor large cardamom for caterpillar/ shoot borer and infected plants may be hand picked and destroyed mechanically.
- Dry grasses used for mulching near the orange trees must be removed before rain. Also apply FYM/Compost @ 5 kg around trees 1-4 years, @ 25 kg around trees 5-10 years old and @ 50 kg around trees of 11-25/40 years old after spells of rain.
- Continue land preparation and sowing of pre-treated, healthy & certified seeds of vegetables in appropriate and well prepared nursery beds in the vegetable garden. The climbing plants (vegetables) should be sown in the lowermost terrace of the vegetable garden. Sowing may be undertaken after spells of rain

### **West Bengal**

- Rain/thundershower is likely at many places accompanied with thunder squall over the State.

### **Advisories**

- As rain / thundershowers are likely at many places over the state for next three days, postpone irrigation and intercultural operation to the crops.
- Apply 6.5 kg urea per bigha as top dressing for second time in jute after current spells of rain.
- Land for *aus* rice. HYVs are IET-826, CR-126-42-1, IR-36, IET-2233, IET-1444 (Rosi), Culture-1 etc. Treat the seeds with Crabendazim 50 % @ 1 gm / kg of seeds. Seed rate is 75-100 kg / ha in case of broadcasting and 62-75 kg / ha in case of row sowing. Plough the field 3-4 times & apply 20-25 cart compost before final ploughing. 25 kg Potash per hectare may be given.
- Infestation of pod borer is reported in sesame in some places. Apply endosulfan @ 2 ml per litre of water to control pod borer.
- Infestation of fruit and shoot borer in brinjal is reported in some places. Apply Triazophos 40 EC @ 1.5 ml, Spinosad 45 EC @ 0.2 ml or Cartap Hydrochloride @ 0.75 g per litre of water alternatively.
- Infestation of white fly in bhindi is reported in some places. To control white fly apply Confidor @ 0.25 ml per litre of water.



- Apply fertilizers and plant protection measures after current spells of rain.

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

### **Gujarat**

- Mainly dry weather is likely over the State.

#### **Advisories**

- As there was no rain during last week over the State and mainly dry weather is likely for next three days, apply irrigation to sugarcane, summer groundnut, summer bajra and other field and horticultural crops.
- Drain out water from the rice field 10 – 15 days before harvesting. Start harvesting of already matured crops on bright sunny days.
- Apply 75 kg Nitrogen / ha as top dressing to sugarcane. Carry out light earthing up at 90 days after planting.
- In ber pruning should be done between 15<sup>th</sup> and 25<sup>th</sup> May.
- There is mild chance of occurrence of powdery mildew in mango and cucurbits and citrus canker in lemon in North Saurashtra Zone.
- For the control of powdery mildew in mango and cucurbits, wettable sulphur @ 25 gm in 10 litres of water should be sprayed.
- For the control of citrus canker in lemon, copper oxy chloride @ 40 gm or streptocycline @ 5 gm in 10 litres of water should be sprayed at an interval 15 days.

### **Chhattisgarh**

- Isolated rain/thundershower is likely over the State.

#### **Advisories**

- As there was no significant rainfall during last week and rain / thundershower is likely only at isolated places over the State for next three days, apply irrigation to sugarcane, vegetables, sunflower, groundnut, sesame and green gram.
- Maintain 5 cm water in summer rice field.
- Top dressing of sugarcane with Nitrogen may be done at knee high stage.
- Prepare nursery of chilli, tomato and brinjal in shadow.
- There is mild chance of attack of stem borer in summer rice in Baster Plateau zone. If attack crosses economic threshold level, apply Carbofuran 3G @ 33 kg / ha or Phoret 10G @ 8 to 10 kg / ha.
- Summer ploughing is advised wherever sufficient rains / moisture is available in the fields. It will help in effective pest / weed management for the coming *Kharif* crops due to soil solarization.

### **Maharashtra**

- Light rain occurred at isolated places in North Konkan on 19<sup>th</sup> & in South Konkan on 21<sup>st</sup> May. Mainly dry weather prevailed over rest of the State.
- Mainly dry weather is likely over the state.

#### **Advisories**

- As there was no significant rain during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane (pre-seasonal), sugarcane (*suru*), summer groundnut and summer sunflower.

- Maintain 3 – 5 cm standing water in summer rice field.
- 5-6 ton trash may be applied in the field of sugarcane (pre-seasonal) and sugarcane (*suru*) to control evaporation.
- Harvest mango fruits at 80% ripening stage & at morning upto 10 am and after 4 pm & keep fruits in shadow.
- Continue harvesting of already matured crops of green gram, groundnut (in Sindhudurga district), summer rice (in South Konkan) and summer bajra on bright sunny days.
- Incidence of red mites on bhindi crop is reported in Pune. If attack crosses economic threshold level, spray Omite @ 2 ml or Dicofol @ 2 ml or Vertimec @ 0.5 ml per litre of water.
- Brinjal is infested by aphids, jassids & white fly in Western Maharashtra Scarcity Zone (Rahuri). For the control of jassids spray, Imidacloprid @ 4 ml in 10 liters of water. For the control of white fly spray, 5 % Neem seed extract or Methyl dimeton @ 10 ml in 10 liters of water.
- Land may be prepared for the sowing of irrigated cotton. Select a variety from LRH-5166, JLH-168 as improved variety & Phule-492, Phule-388, Sankar-6 & 10, PKV-4 & 5 as hybrid variety. Seeds may be treated with 250 gm Azotobacter / 10 kg seeds. Sowing may be at 90 X 90 cm in medium, at 120 X 90 cm distance in black soil for Hybrid variety and at 90 X 90 cm for improved variety. Nitrogen @ 20 kg and Phosphorus and Potash @ 50 kg each / ha may be applied at the time of sowing.
- After harvesting of summer crops ploughing & harrowing may be done in the field for *kharif* crops.

### **Madhya Pradesh**

- 1 cm recorded at Umaria and Sheopurkalan on 16<sup>th</sup>.
- Rainfall occurred at isolated places in South West M.P. on 15<sup>th</sup>, North M.P. on 16<sup>th</sup> and Northwest M.P. on 17<sup>th</sup>. Mainly dry / dry weather prevailed over the state for remaining period.
- Rain/thundershower is likely at few places over north Madhya Pradesh and at isolated over south Madhya Pradesh.

### **Advisories**

- As there was no significant rain during last week in the State and rain/thundershower is likely at few places over north Madhya Pradesh and at isolated over south Madhya Pradesh for the next three days, apply irrigation to *summer* moong and sugarcane.
- Undertake intercultural operation in sugarcane to keep the field weed free. Intercultural operations may be undertaken on a non rainy day in north Madhya Pradesh.
- Undertake intercultural operations, application of fertilizers and pesticides in *summer* urd, cowpea, sunflower and soybean in and around Jabalpur.
- Undertake summer ploughing to conserve soil moisture and to destroy insect eggs and pathogens

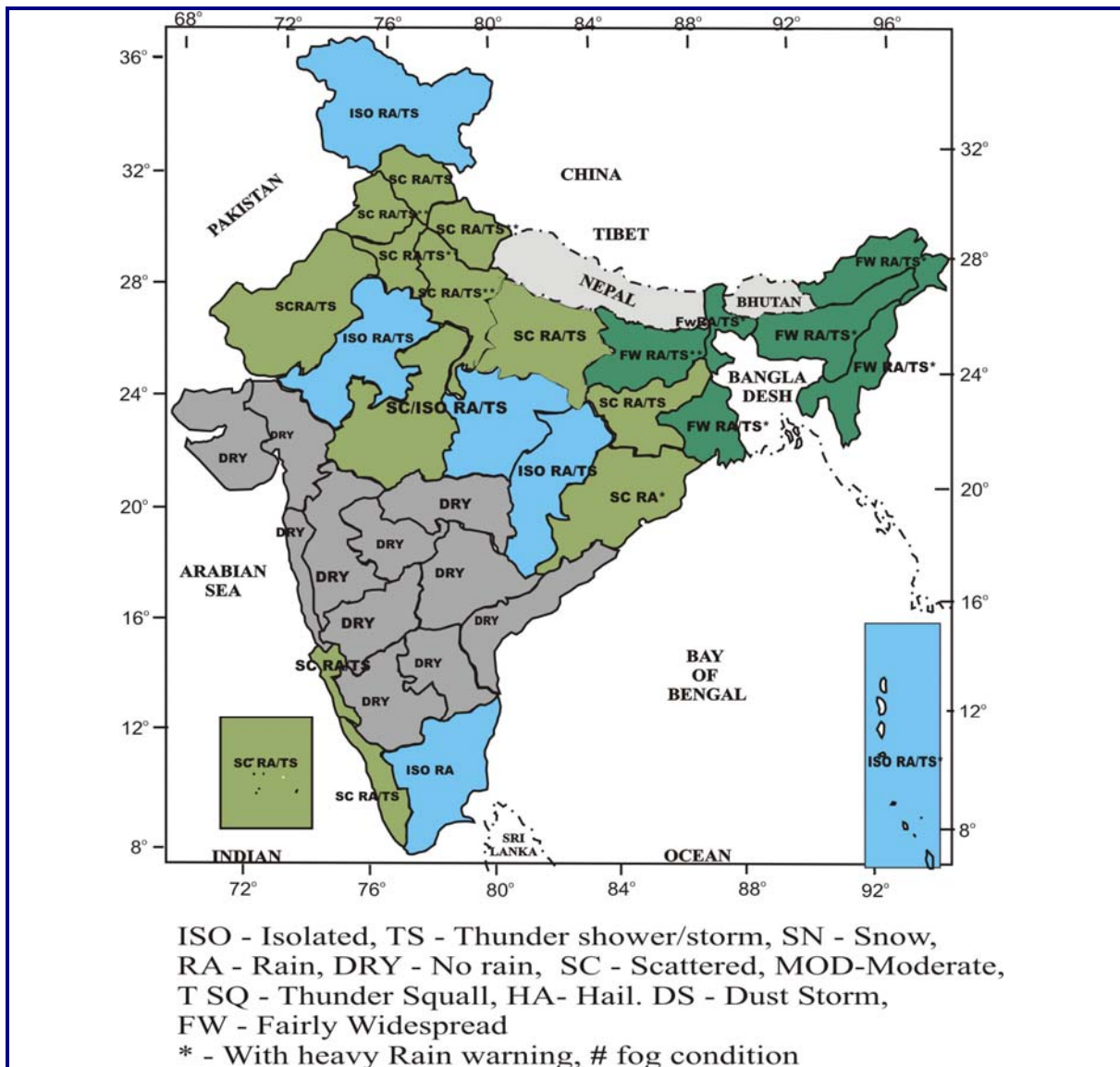
### **Orissa**

- Rain/thundershower are likely at a few places over the State

### **Advisories**

- As there was no significant rainfall during last week in most of the districts and rain/thundershower likely at a few places over the State for next three days, apply irrigation to vegetables, moong and early sown sugarcane.
- There is mild chance of occurrence of aphids in vegetables. If the pest population crosses economic threshold level, spray Dimethoate or Methyl demeton @ 2 ml per litre of water. Also monitor the crop for leaf blight and spray Mancozeb @ 4-5 gm/litre of water to control leaf blight. Spray pesticides on a non rainy day.
- Continue harvesting the matured, vegetable, pulses, oilseed crops and *dalua* rice crops.
- Monitor sugarcane for early shoot borer and undertake need based plant protection measures on a non rainy day.

### Forecast Valid upto 22<sup>nd</sup> May, 2008



## *Salient weather features for the week ending 21/05/08*

### **MAIN EVENTS OF THE WEEK**

- Scattered to fairly widespread rain/thundershower accompanied with occasional moderate to severe squalls occurred over northwest India, Uttar Pradesh and Rajasthan during second half of the week.
- Heat wave/severe heat wave conditions prevailed over some parts of Coastal Andhra Pradesh during the week.

### **METEOROLOGICAL ANALYSIS**

- Last week's low pressure area over eastcentral Bay of Bengal and adjoining coastal area of Myanmar became well marked over eastcentral and adjoining northeast Bay of Bengal and coastal areas of Myanmar on 15<sup>th</sup>. It lay as a low pressure area over coastal areas of Myanmar and adjoining northeast Bay of Bengal on 16<sup>th</sup> and became less marked on 17<sup>th</sup>.
- Last week's western disturbance as an upper air system over central Pakistan & neighbourhood lay over north Pakistan & neighbourhood on 15<sup>th</sup> & 16<sup>th</sup> and over north Pakistan and adjoining Jammu & Kashmir during 17<sup>th</sup>-21<sup>st</sup>. A trough from the above system extended upto northeast Arabian Sea during the week. An embedded cyclonic circulation also lay over southeast Pakistan and neighbourhood on few days.
- Another cyclonic circulation in lower tropospheric levels lay over Punjab and neighbourhood on 15<sup>th</sup>, Haryana & neighborhood on 16<sup>th</sup>, Himachal Pradesh and adjoining Uttarakhand on 17<sup>th</sup>, central Uttar Pradesh & neighbourhood on 18<sup>th</sup> & 19<sup>th</sup> and over Bihar & adjoining West Bengal on 20<sup>th</sup> and 21<sup>st</sup>.
- Last week's cyclonic circulation in lower tropospheric levels over Haryana and adjoining Uttar Pradesh lay over East Uttar Pradesh on 15<sup>th</sup> & 16<sup>th</sup>, Bihar and adjoining West Bengal & Sikkim on 17<sup>th</sup>, Assam & neighbourhood on 18<sup>th</sup>, Nagaland, Manipur, Mizoram & Tripura and neighbourhood on 19<sup>th</sup> and moved eastwards on 20<sup>th</sup>.
- Last week's upper air cyclonic circulation in lower tropospheric levels over East Uttar Pradesh and neighbourhood lay over Jharkhand & neighbourhood on 15<sup>th</sup> and became less marked on 16<sup>th</sup>.
- The cyclonic circulation over Sub-Himalayan West Bengal & Sikkim and neighbourhood between 2.1 & 5.8 Km a.m.s.l. became less marked on 15<sup>th</sup>. However an upper air north-south trough ran from Arunachal Pradesh to north Bay of Bengal between 3.1 & 5.8 Km above mean sea level (a.m.s.l) tilting westwards with height.

### **RAINFALL**

- Fairly widespread rain/thundershower with isolated heavy to very heavy falls occurred over Andaman & Nicobar Islands during first half and isolated rain/thundershower occurred during second half of the week.
- Scattered to fairly widespread rain/thundershower accompanied with occasional squall occurred over Punjab, Haryana, Chandigarh and Delhi during second half of the week. Isolated to scattered rain/thundershower also occurred over Jammu & Kashmir on many days and Rajasthan, east Madhya Pradesh and Chhattisgarh on a few days of the week.

- Scattered to fairly widespread rain/thundershower occurred over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim on many days of the week. Isolated to scattered rain/thundershower also occurred over Nagaland, Manipur, Mizoram & Tripura, Gangetic West Bengal, Orissa, Jharkhand, Bihar, Uttar Pradesh on many days of the week.
- Isolated rain/thundershower occurred over Coastal Andhra Pradesh, Tamil Nadu, Karnataka, Kerala and Lakshadweep on many days of the week.

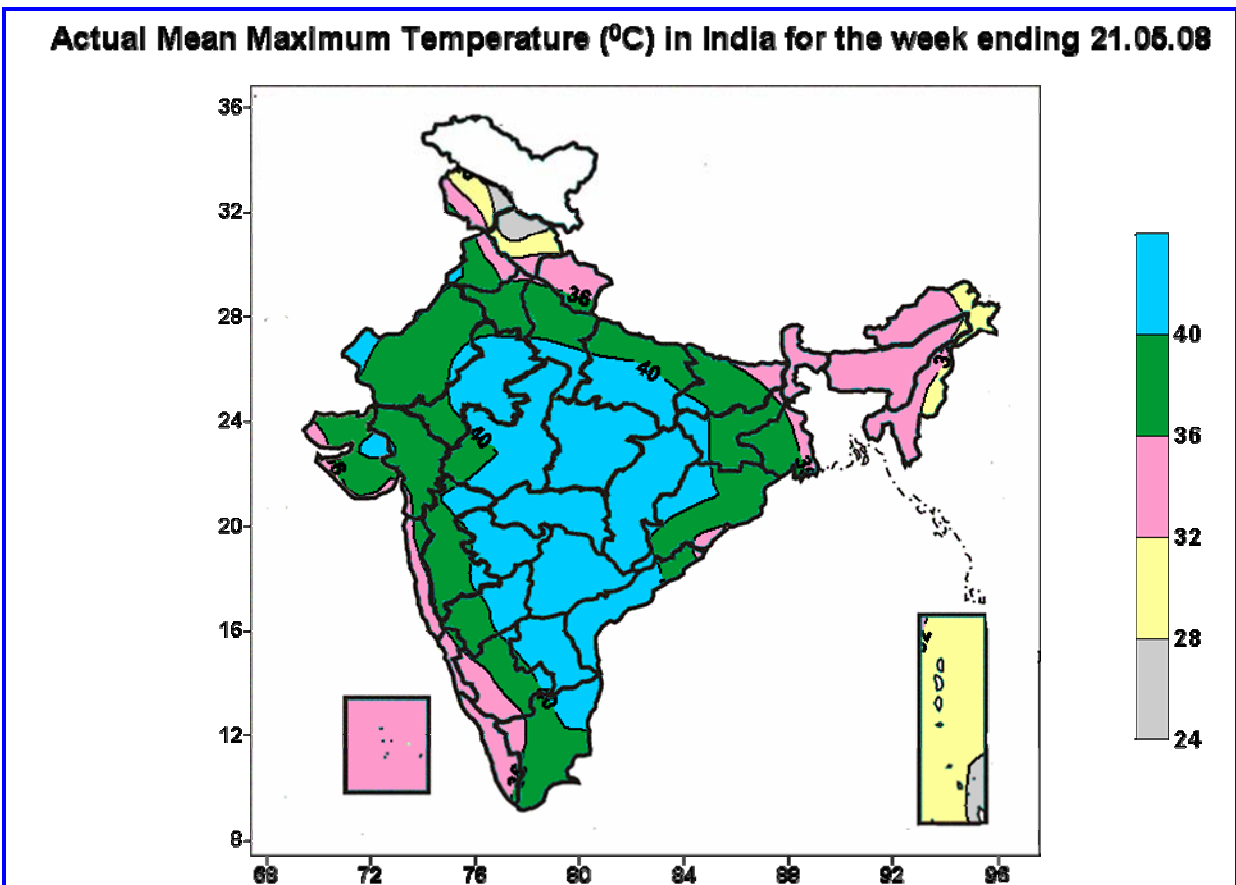
### **MAXIMUM TEMPERATURE**

- Heat wave/severe heat wave conditions prevailed over some parts of Coastal Andhra Pradesh during the week.
- The maximum temperatures were markedly above normal over some parts of Arunachal Pradesh and Assam during first half of the week.

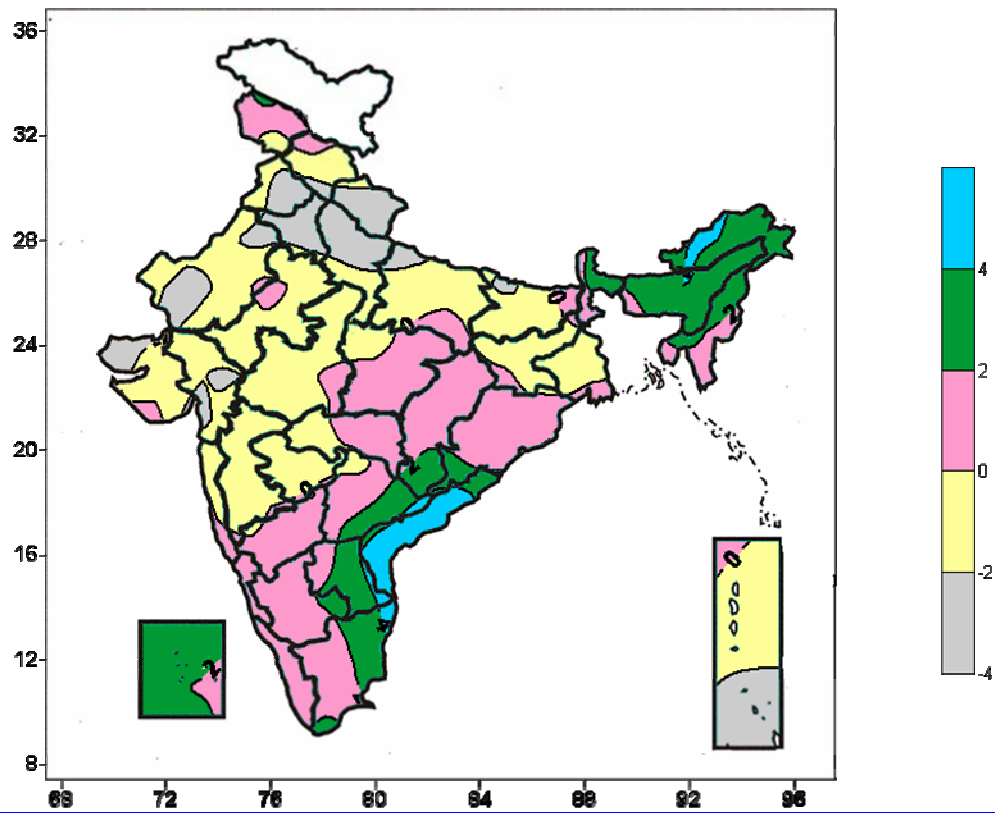
### **Outlook For The Week Ending On 21<sup>st</sup> May 2008**

- A low pressure area is likely to form over southeast Arabian Sea within 24th May. Subsequently, it is likely to intensify and move in a northwesterly direction.
- Fairly widespread rain/thundershowers with isolated thundersquall/hail is likely over Indo-Gangetic plains and adjoining central India during first half of the week and decrease thereafter.
- Fairly widespread rainfall is likely over northeastern States and Sub-Himalayan West Bengal & Sikkim.

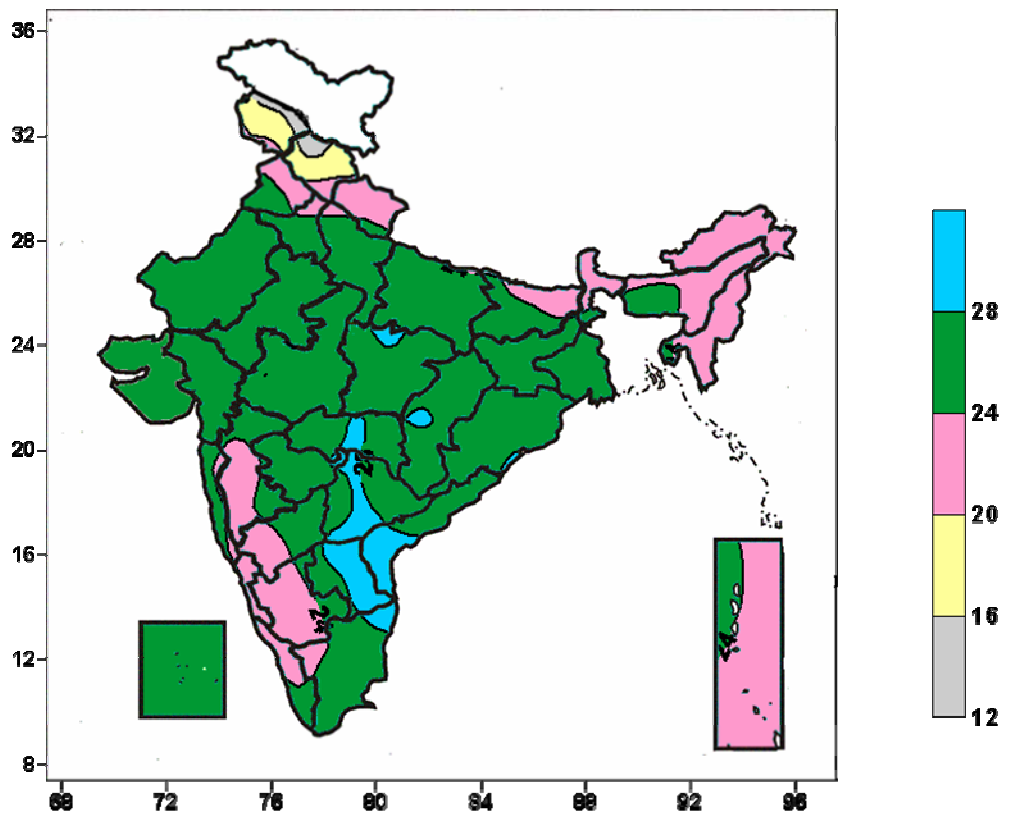
## Contour maps for the week ending 21st May, 2008



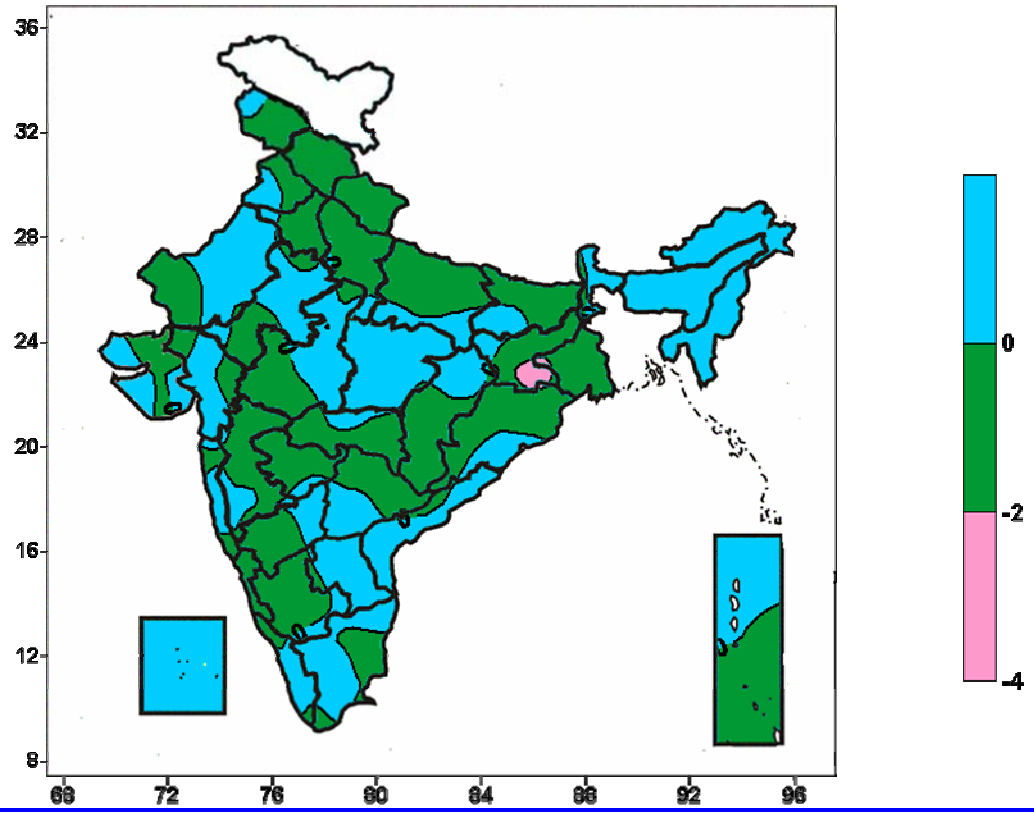
**Maximum Temperature ( $^{\circ}\text{C}$ ) Anomaly in India for the week ending 21.05.08**



**Actual Mean Minimum Temperature ( $^{\circ}\text{C}$ ) in India for the week ending 21.05.08**

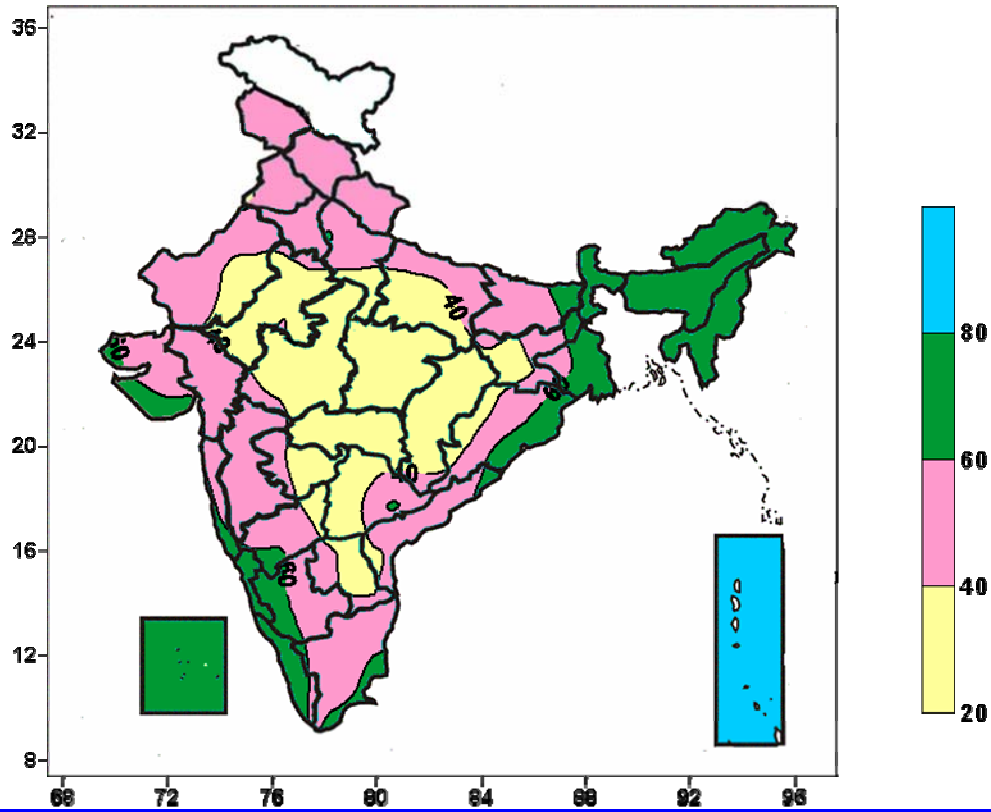


Minimum Temperature (°C) Anomaly in India for the week ending 21.05.08

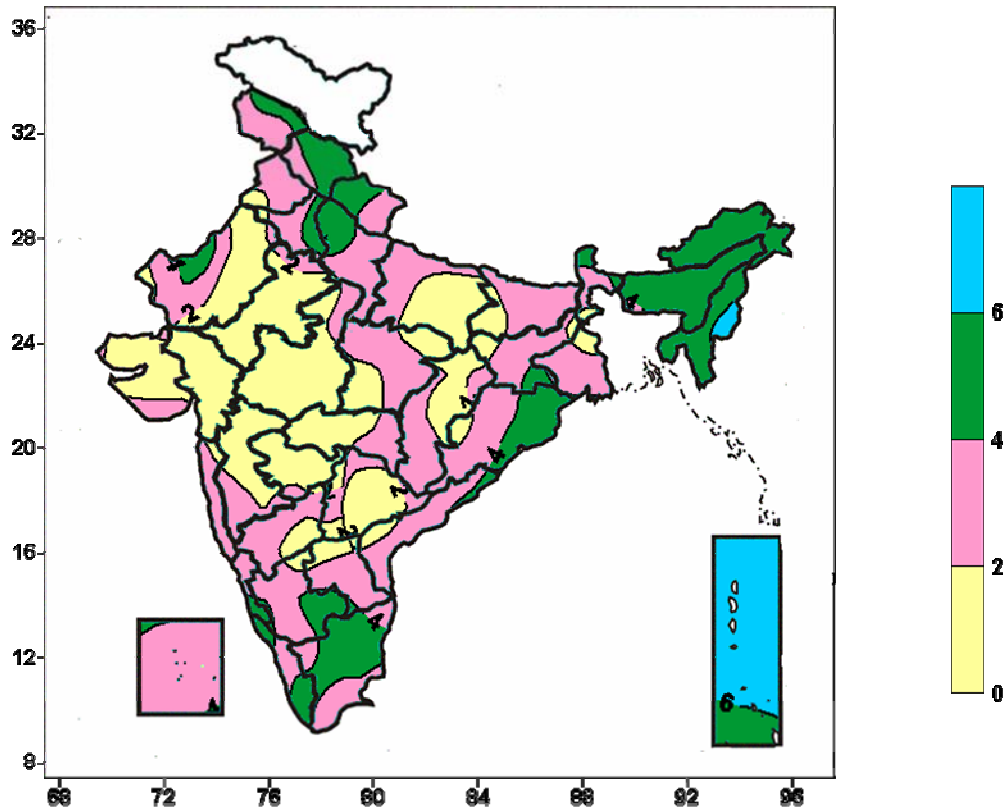




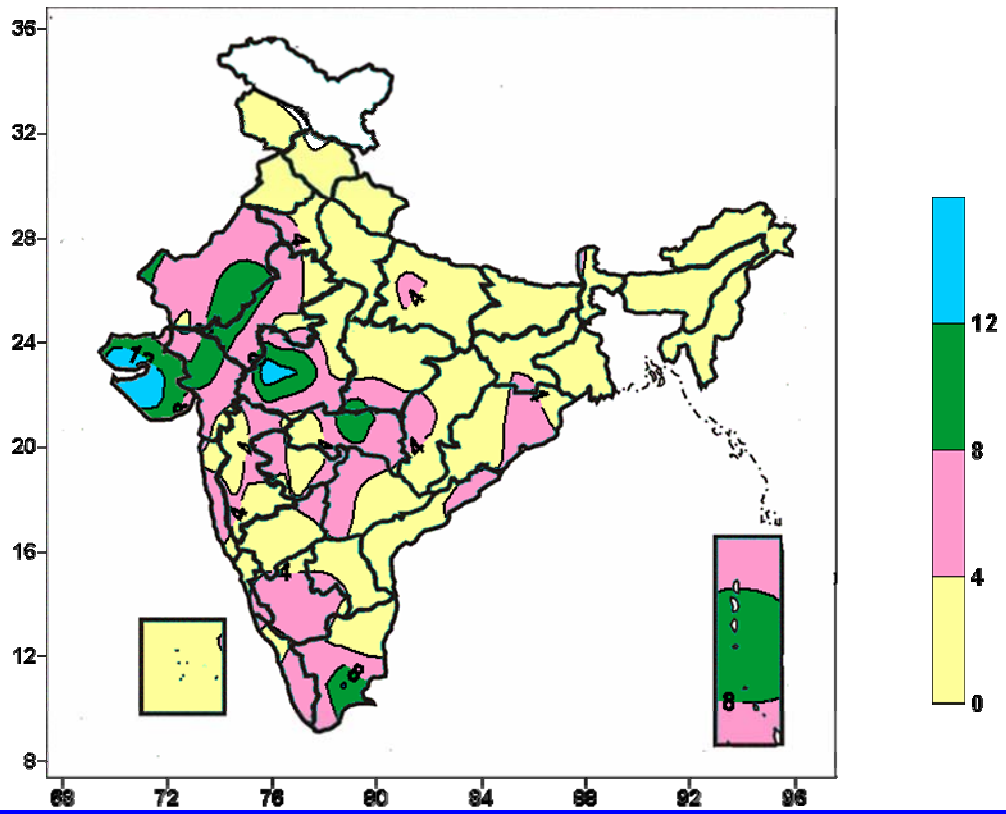
**Relative Humidity (%) over India for the week ending 21.05.08**



**Cloud amount (okta) over India for the week ending 21.05.08**



### Wind speed (knots) over India for the week ending 21.05.08



## Desert Locust Forecasting



### Rainfall (mm)

Station Name	15/5/08	16/5/08	17/5/08	18/5/08	19/5/08	20/5/08	21/5/08
<b>Amritsar</b>	00.0	00.0	00.0	00.0	00.0	10.4	05.6
<b>Barmer</b>	00.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Sriganganagar</b>	03.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Jaisalmer</b>	00.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Kota</b>	00.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Deesa</b>	00.0	00.0	00.0	00.0	00.0	00.0	00.0
<b>Churu</b>	05.6	00.0	00.0	00.0	00.0	00.0	00.0

### Temperature(°C)

Station Name	15/5/08	16/5/08	17/5/08	18/5/08	19/5/08	20/5/08	21/5/08
<b>Amritsar</b>	29.9	30.4	31.3	31.6	30.1	23.6	24.3
<b>Barmer</b>	33.9	33.8	33.8	32.3	38.8	32.7	32.8
<b>Sriganganagar</b>	33.6	35.7	34.4	35.4	35.3	31.6	32.6
<b>Jaisalmer</b>	33.2	33.9	34.6	33.0	32.8	32.4	32.7
<b>Kota</b>	35.0	36.0	37.8	36.5	35.5	30.3	34.9
<b>Deesa</b>	31.1	31.2	31.2	30.1	30.8	31.0	31.0
<b>Churu</b>	31.7	33.9	36.6	35.0	33.1	31.2	31.9

### Wind

Station Name	15/5/08		16/5/08		17/5/08		18/5/08		19/5/08		20/5/08		21/5/08	
	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed
<b>Amritsar</b>	S	08	SSW	09	-	-	-	-	-	-	-	-	-	-
<b>Barmer</b>	W	22	-	-	-	-	-	-	-	-	-	-	-	-
<b>Sriganganagar</b>	-	-	WNW	11	-	-	-	-	-	-	-	-	-	-
<b>Jaisalmer</b>	-	-	SW	05	-	-	-	-	-	-	-	-	W	26
<b>Kota</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Deesa</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Churu</b>	NW	12	WNW	21	-	-	-	-	-	-	-	-	SE	24

Under the prevailing weather conditions, there is no chance of locust infestation in Rajasthan and the adjoining areas during this week.

# CROP - STATE - STAGE

New Delhi

Vegetables	Arhar	Rice		
Vegetative / flowering / fruiting/ harvesting	Land preparation/ sowing	Land preparation and nursery sowing		
<b>Haryana</b>				
Autumn sugarcane	Horticultural crops	Sunflower	Summer Pulses	Wheat
Vegetative	Vegetative	Vegetative	Sathe moong- complete sowing Moong-sowing	Harvesting
<b>Cotton</b>				
Sowing				

## Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Onion	Barley	Gram	Maize
Vegetative/flowering/fruiting/harvesting	Bulb development/maturity	Maturity/harvesting	Pod maturity/harvesting	Land preparation for sowing
<b>Potato</b>	<b>Rice</b>	<b>Apple</b>		
Sprouting / early vegetative / vegetative	Nursery sowing	Fruit development		

## Jammu & Kashmir

Vegetable crops	Wheat	Pulses	Barley, Oat	
Vegetative	Harvesting	Vegetative	Harvesting-Jammu	

## Punjab

Autumn sugarcane	Wheat	Summer pulses	Sunflower	Horticultural crops
Vegetative	Harvesting	Early vegetative	Vegetative	Vegetative

## Rajasthan

Cotton	Summer Vegetable crops			
Sowing	Vegetative			

## Uttar Pradesh

Summer Sugarcane	Vegetables	Summer pulses	Sunflower	Mango
Vegetative	Fruiting / harvesting	Vegetative	Vegetative	Fruit setting
<b>Oilseeds</b>				
Vegetative				

## Uttarakhand

Mango/Litchi	Sugarcane	Potato	Apple	
Fruiting/picking	Vegetative	Tuber formation/development	Vegetative	

## Assam

Regular Ahu rice	Maize	Horticultural plants	SugarCane	Summer vegetables
Broadcasted-Early vegetative / tillering Transplanted-Transplanting	Early vegetative / vegetative	Planting	Early vegetative / vegetative	Vegetative / flowering /fruiting/harvesting
<b>Early Ahu rice</b>	<b>Jute</b>	<b>Early sown Jute</b>		
Tillering	Germination / early vegetative / vegetative	Germination / early vegetative		

## Arunachal Pradesh

Wet seeded rice	Summer Vegetables	Ginger	Jhum Rice	Maize, Millet
Land preparation /transplanting	Vegetative	Early vegetative / vegetative	Vegetative	Vegetative

## Bihar

Vegetables & fruit crops	Summer Maize	Summer rice	Sugarcane	Potato
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Vegetative/flowering/fruitle	Maturity	Milk/dough/early maturity	Vegetative	Tuber formation
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#### Jharkhand

<b>Summer rice</b>	<b>Litchi / Mango</b>	<b>Vegetables (Tomato, Brinjal, Bhendi)</b>	<b>Wheat</b>	<b>Summer moong and til</b>
Flowering/milk/dough	Vegetative (tree)	Vegetative / flowering / fruiting/harvesting	Harvesting	Flowering/grain formation/seed formation

#### Sikkim

<b>Orange</b>	<b>Vegetables</b>	<b>Large Cardamom</b>	<b>Maize</b>	
Fruiting/Harvesting	Sowing	Capsule Development	Grain development	

#### West Bengal

<b>Sugarcane</b>	<b>Jute</b>	<b>Sesamum</b>	<b>Groundnut</b>	<b>Green Gram</b>
Vegetative	Germination / seedling / early vegetative/vegetative	Pod formation/seed formation/early maturity	Seed formation/early maturity	Pod formation/early maturity
<b>Boro rice</b>	<b>Aus Rice</b>			
Dough / early maturity/ maturity	Preparation of land			

#### Chhatisgarh

<b>Sugarcane</b>	<b>Sesame</b>	<b>Summer Rice</b>	<b>Vegetables</b>	<b>Green gram</b>
Autumn sugarcane – Vegetative	Pod formation / seed formation/ early maturity	Milk/dough/maturity	Vegetative / flowering / fruiting/harvesting	Pod formation
<b>Sunflower</b>	<b>Groundnut</b>			
Seed formation/early maturity	Seed formation/early maturity			

#### Gujarat

<b>Sugarcane</b>	<b>Summer rice</b>	<b>Summer groundnut</b>	<b>Summer bajra</b>	
Vegetative	Grain maturity/harvesting	Seed formation/early maturity	Grain formation/ early maturity	

#### Maharashtra

<b>Sugarcane Preseasonal (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Sugarcane (Suru) (Madhya Maharashtra, Marthwada and Vidarbha)</b>	<b>Summer sunflower</b>	<b>Mango</b>	<b>Summer green gram</b>
Elongation / cane development	Active growth / elongation	Head formation/seed formation	Fruit development/ fruit maturity/harvesting	Pod maturity/harvesting
<b>Potato (Madhya Maharashtra, Marathwada &amp; Vidarbha)</b>	<b>Summer Rice</b>	<b>Summer bajra</b>	<b>Summer groundnut</b>	<b>Irrigated cotton</b>
Vegetative	Grain formation Grain maturity-south konkan	Grain maturity/harvesting	Pod formation Pod maturity- Sindhudurg	Land preparation and sowing

#### Madhya Pradesh

<b>Sugarcane</b>	<b>Summer Sugarcane</b>	<b>Summer moong</b>		
Grand growth	Vegetative	Pod formation		

#### Orissa

<b>Vegetable crops</b>	<b>Rice</b>	<b>Sugarcane</b>	<b>Moong</b>	
Flowering/fruitle/harvesting	Grain maturity/harvesting	Vegetative	Vegetative	

#### Andhra Pradesh

<b>Rice</b>	<b>Groundnut</b>	<b>Chillies</b>	<b>Sugarcane</b>	
Harvesting	Harvesting	Vegetative	Vegetative	

#### Karnataka

<b>Summer rice, Maize, Sunflower</b>	<b>Annual sugarcane</b>	<b>Early kharif Crops</b>	<b>Rabi Cotton</b>	
Grain maturity/harvesting	Tillering	sowing	End picking	

#### Kerala

<b>Virippu- rice</b>	<b>Rubber</b>	<b>Coconut</b>	<b>Banana</b>	<b>Pepper</b>
sowing	Planting	Land preparation for new planting	Planting	Land preparation for new planting

**Tamil Nadu**

<b>Rice (<i>Samba</i>)</b>	<b>Sugarcane (Early, Mid season)</b>	<b>MaizeJowar/Bajra/Samai</b>	<b>Groundnut/Black gram/Green gram/Red gram</b>	<b>Special season sugarcane</b>
Grain maturity	Cane development / maturity	Grain development/maturity	Pod development/maturity	Grand growth
<b>Sorghum</b>				
Sowing				

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