



Summary of Agromet Advisory Services for different States of the country

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

Agromet Advisory

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 during last week in most of the districts and rain/thundershowers are likely at isolated places over the State, apply irrigation to the standing crops.
- In Jalandhar district, to control iron deficiency in sugarcane (interveinal chlorosis of young leaves) spray the crop with 1% Ferrous sulphate solution and to control black bug in sugarcane, apply chloropyriphos 20 EC @ 350 ml/acre by dissolving in 400 litres of water with manually operated sprayer.
- Continue sowing of radish.
- Continue land preparation and sowing rice in the nursery and cotton in the main field in central plain zone.
- Undertake land preparation and sowing of okra in Fatehpur sahib district. Treat the seed with 3 g Thiram or Captan per Kg before sowing.
- Iron deficiency has been noticed in rice nursery in Ludhiana district due to interveinal chlorosis of younger leaves. Farmers are advised to spray the crop with 0.5-1.0 % Ferrous sulphate solution.

Haryana

- Rain/thundershowers are likely at isolated places over the State during next 48 hrs. and increase thereafter.

Advisories

- As there was no significant rainfall during last week except in Ambala and Mahendragarh district and rain/thundershowers are likely at isolated places over the State during next 48 hrs. and increase thereafter, apply irrigation to sugarcane, oilseeds, pulses and horticultural crops. Postpone irrigation in the above mentioned districts as there was excess rainfall during last week.
- Monitor the sugarcane crop for thrips and pyrilla in Eastern zone & if exceeds economic threshold level, spray 350 ml Endosulfan 50 EC in 600 liter of water/acre.
- Undertake direct sowing of radish varieties i.e. pusa chetki and Punjab Ageti.

- Farmers are advised to prepare the fields for cotton sowing and select desi cotton among the 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.
- Apply second dose of nitrogen to the rice nursery sown during the middle of may to get seedling ready for transplanting.

Rajasthan

- Rain/thundershowers are likely at many places over East Rajasthan and isolated over rest of the state.

Advisories

- As rain/ thundershowers are likely to occur at many places over East Rajasthan, postpone irrigation to the crops. As there was no significant rainfall during last week and rain/ thundershowers are likely at isolated places over West Rajasthan during next three days, apply irrigation to vegetable crops.
- Continue land preparation and sowing of groundnut in and around Jaipur, Ajmer, Dausa and Tonk Apply 250 kg per hectare gypsum at the time of last ploughing and 15 kg nitrogen and 60 kg phosphate at the time of last sowing. Apply 30 kg potash per hectare in potash deficient areas.
- Continue land preparation and planting nursery of kharif onion in and around Jaipur, Ajmer, Dausa and Tonk. Select from N-53 and Agrifound dark red which are the improved varieties of kharif onion.
- Bark eating caterpillar may attack Mango, Ber and Aonla. This insect eats bark of these trees & makes tunnels in them. To control the insect spray Endosulfan @ 1.5 ml per litre of water. Application of chemicals may be continued after spells of rain in East Rajasthan.
- Complete land preparation and sowing of 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 ploughing in and around Alwar, Dholpur, Bharatpur, Karauli and Sawai Madhopur to conserve rains.
- Monitor bhendi for mosaic. To control, spray Malathion @ 1 ml per litre water to control the vector (white fly). Application of chemicals may be continued after spells of rain in East Rajasthan.

Uttar Pradesh

- Isolated rain/thundershowers are likely over West U.P. during next 48 hrs. and increase thereafter.
- Rain/thundershowers are likely at a few places over East U.P. during next 24 hrs. and increase thereafter.

Advisories

- As there was no significant rain during last week in west U.P and isolated rain/thundershowers are likely during next 48 hrs. and increase thereafter, apply irrigation to vegetable, sugarcane, summer pulses and sunflower crops.
- As rain/thundershowers are likely at a few places over East U.P. during next 24 hrs. and increase thereafter, Postpone irrigation to the crops.
- Harvest the matured vegetables. To control wet rotten disease in onion spray the solution of Carbendazim 0.1% on a non rainy day.
- To control internal rotten disease in mango, spray the solution of 5-6 gm Borax/litre of water. Cut the mango hopper affected branch 30-45 cm in length. To prevent mango fruits

from falling, spray the solution of Naphthalene Acetic Acid @ 15 p.p.m or 4 ml planofix/9 litre of water on a non rainy day.

- Weeding, hoeing, intercultural operations and application of fertilizers may be done in summer pulse, sugarcane and sunflower crops on non rainy day.

Himachal Pradesh

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

Advisories

- As there was no significant rainfall in the State except Hamirpur, Kangra, Mandi, Simla, Sirmur and Solan during last week and rain / thundershowers is likely at isolated places over the State for next three days, apply irrigation to vegetables, onion and potato. Postpone irrigation in the above mentioned districts.
- 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. Complete sowing of bhindi in the mid hill valley at the earliest.
- Sowing of raddish varieties i.e Pusa Chetakin or early minowwhite may be undertaken.
- 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 will be ready by 15th 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.
- Continue 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 24th May to 8th June and Basmati varieties should be sown between 24th May to 4th June.
- Red pumpkin beetle and fruit fly may appear in the already transplanted cucurbitaceous crops. If noticed, spray malathion / endosulphon @ 0.15 percent at 10 days interval to control the insect.

Uttarakhand

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

Advisories

- As there was no significant rain during last week in the State except in Chamoli, Dehradun, Garhwal Tehri and Nainital districts and rain/thundershowers is likely at a isolated places over the State for the next three days, apply irrigation to sugarcane, vegetable crops and orchard trees. Postpone irrigation in the above district as there was excess rainfall during last week.
- Undertake intercultural operations in orchards and sugarcane day 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.
- Continue land preparation and sowing of rice in the nursery in and around Roorkey.

Jammu & Kashmir

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

Advisories

- As rain/thundershowers is likely only 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, chilies, 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 and moong in the main field. Also start transplanting of rice in the main field in Kashmir division.
- Rouge out virus effected plants from brinjal, tomato, cauliflower and cabbage crop in Jammu division.
- Undertake summer ploughing in order to destroy the weed seeds, pathogens, and insect eggs in Jammu division.
- Undertake sowing of maize (var GS-2, Mansard, Trikuta, C-5 and C-8) in Jammu with seed rate 20-30 kg/ha in irrigated areas in Jammu division during these days, before sowing treat the seed with thiram @ 0.3% or carbendazim @ 0.2%.

Delhi

- Isolated rain/thundershowers are likely over the state during next 48 hrs. and increase thereafter.

Advisories

- As there was no significant rain during last week and isolated rain/thundershowers are likely over the State during next 48 hrs. and increase thereafter, apply irrigation to vegetables crops.
- Monitor vegetables crops for sucking pests. If noticed, spray Endosulphan 35% E.C. or Melathian 50% E.C. @ to 2ml per litter of water on a non rainy day.
- 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.
- Protect the cauliflower nursery from scorching effect by applying light and frequent irrigations.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

- Rain/thundershowers are likely at a few places the state.

Advisories

- Apply irrigation to plantation crops viz., coconut, arecanut, rubber and banana in the state as rain/ thundershowers are likely at a few places for the next three days.
- Attack of foot rot is reported in pepper nursery. Spray Bordeaux mixture @ 1% on a non rainy day to control the disease.

- 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 pepper. Continue land preparation and transplanting of *virippu* rice.
- 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. Also undertake intercropping in grown up coconut garden. Pineapple, banana, tapioca and black pepper are ideal for planting as intercrops in coconut.

Tamilnadu

- Isolated rain/ thunder showers are 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.
- Magnesium deficiency is noticed in cotton in and around Kovilpatty. For alleviating this symptom spraying 5 % magnesium sulphate, 1 % urea and 0.1 % zinc sulphate on 80 days after sowing is recommended. For preventing boll shedding in cotton spraying Napthalene Acetic Acid (NAA) 40 ppm on 60 and 90 days after sowing is recommended. Nipping the terminal bud between 75 to 80 days after sowing is recommended for preventing the vegetative growth in cotton.
- Prevailing dry climate may induce viral diseases in *summer irrigated* vegetables. The vectors like sucking pests may spread rapidly in this dry climate. Hence spraying of Dimethoate @ 500 ml/ha is recommended for controlling these vectors.
- Start harvesting matured pulse and early and mid season sugarcane crops.
- Start land preparation and nursery sowing for *kuruvai* rice. Totally 24kg of seeds are required for one acre kuruvai short duration rice (ADT 43, ADT 45 & ADT 48) Before sowing of seeds, seed treatment with 10gms of *Pseudomonas fluorescens* /kg of seed or 2gm carbendazim /kg of seed should be mixed with 1 litre of water and the seeds should be uniformly treated. Then the treated seeds should be kept for 12 hours in water and the germinated seeds should be broadcasted in the nursery.

Karnataka

- Rain/thundershowers are likely at many places over Coastal Karnataka and few places over the rest of the state.

Advisories

- Postpone irrigation in coastal Karnataka as rain/thundershowers are likely at many places with isolated heavy to very heavy rainfall over coastal Karnataka. As there was no significant rainfall in the state during last week and rain/thundershowers are **at a few places**

over the rest State for the next three days, apply irrigation to sugarcane. Arrange for drainage facilities over coastal Karnataka to avoid water stagnation.

- 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 and intercultural operations may be undertaken after spells of rain in Coastal Karnataka and on a non rainy day over rest of the State.
- Complete harvesting matured crops of rice and sunflower on bright sunny days.
- Continue land preparation and sowing of *kharif* crops like green gram, black gram, jowar and sunflower as southwest monsoon is advanced over Karnataka.

Andhra Pradesh

- Rain/thundershowers are likely **at many places** over north Coastal Andhra Pradesh and **at a few places** over the rest State.

Advisories

- As rain/thundershowers are likely at many places over north Coastal Andhra Pradesh, postpone irrigation to the crops. As there was no significant rainfall in the state during last week and rain/thundershowers are **at a few places** over the rest State for the next three days, apply irrigation to sugarcane and chillies.
- The incidence of red mite and early shoot borer is noticed on sugarcane. To control red mite spray Dicofol @ 3 ml per litre of water. To control early shoot borer, spray Endosulfon @ 2ml per litre of water. Application of chemicals may be undertaken after spells of rain in north Coastal Andhra Pradesh and on a non rainy day over rest of the State
- Start land preparation and sowing of *kharif* crops as southwest monsoon is advanced over the State.

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

Assam

- Rainfall Activity during last three days: Light to moderate rain occurred at many places 9th & 11th and at a few places on 10th with isolated rather heavy to heavy falls during the period over the state.
- Rain/thundershowers are likely at a many places over the State

Advisories

- As rain / thundershowers are likely at many places with isolated heavy rainfall during next 48 hours over the State, postpone irrigation and intercultural operation to the crops. Provide adequate drainage facilities to avoid waterlogging.
- 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 bavistin @ 2.5 ml / litre of water or Dithane 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.
- Application of fertilizers, pesticides and intercultural operations after current spells of rain.
- This is the time for land preparation and sowing of arhar. Prepare land by 3-4 ploughing. Sow seeds of variety T-21 @ 2 Kg seeds per bigha (15 kg per hectare) maintaining the spacing of 75 cm between rows and 30 cm between plants. Fertilizer @ 5 kg urea, 35 kg SSP per bigha is to be applied. Preparation of land and application of fertilizer may be undertaken after current spells of rain.

Arunachal Pradesh

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

Advisories

- As rain / thundershowers are likely at many places with isolated heavy rainfall during next 48 hours over the state, postpone irrigation to the standing crops. Provide adequate drainage facilities to avoid waterlogging.
- Undertake intercultural operations, application of fertilizers and pesticides in ginger, *summer* vegetable crops, *jhum* rice and millets after current spells of rain.
- Prepare land preparation and continue transplanting of wet seeded rice after current spells of rain. Maintain spacing of 20 cm X 10 cm.

Bihar

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

Advisories

- As rain/thundershowers likely at a **few places** over the State during next 24 hrs and increase thereafter, postpone irrigation to the crops.
- Undertake land preparation and sowing of *kharif* crops in eastern parts of Bihar utilising monsoon showers.

- 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 with sulfex @ 3kg/ha or share @ 3 kg/ha in 700 litre of water.
- There is mild chance of attack of mealy bug and anthracnose in fruits. If attack crosses economic threshold level, spray the crop with Endosulfan @ 1.5 ml + Chlorthalonil @ 2g + Planofix @ 1 ml per litre of water.
- Monitor the sugarcane crop for shoot borer incidence. If attack crosses economic threshold level, apply pesticides.
- Start harvesting matured crops of maize, rice and moong on bright sunny days.
- Undertake intercultural operations, spraying, application of fertilisers on a non rainy day.

Jharkhand

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

Advisories

- As rain/thundershowers are likely at a few places over the State during next 24 hours and increase thereafter, postpone irrigation to vegetables.
- Undertake land preparation and sowing of *kharif* crops like rice and groundnut in Saheibganj, Godda, Pakur, Dumka, Deoghar, Jamtara, Giridih, Dhanbad, Kodarma districts utilising the monsoon showers.
- Undertake harvesting of matured summer rice, moong and til
- In case of attack of gundhibug in summer rice, spray Endosulphan with 4% dust or 10 Kg. Indolphos with 1.5% dust per acre.
- Land preparation and sowing of arhar and maize may be undertaken by utilising the monsoon showers.
- Undertake intercultural operations, spraying and application of fertilisers on a non rainy day.

Sikkim

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

Advisories

- As rain/thundershower are likely at a few places over the State during next 24 hours and increase thereafter, apply irrigation to orange, large cardamom, early sown maize and vegetable crops.
- Monitor orange for trunk borer and undertake plant protection measures to control the pest on a non rainy day. Also undertake deshooting and debugging.
- Continue harvesting matured crops of large cardamom and maize on bright sunny days.
- Continue land preparation and sowing of pre-treated, healthy & certified seeds of vegetables in appropriate and well prepared nursery beds in the vegetable garden.

West Bengal

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

Advisories

- As rain/thundershowers are likely at a few places over the State during next 24 hours and increase thereafter, postpone irrigation to the crops.
- Apply 6.5 kg urea per bigha as top dressing for second time in jute.
- Prepare 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.
- In pumpkin, ridge-gourd, pointed gourd and cucumber, there is a chance of attack of Red-Pumpkin Beetle in the weather condition in and around Kalyani. To control the pest apply Dimecron or rogor @ 1ml per litre of water.
- Application of fertilizes, pesticides and intercultural operations may be continued after current spells of rain.

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

Gujarat

- Rain/thundershowers are likely at a few places over Gujarat State during next 24 hours and increase thereafter.

Advisories

- As there was no rain during last week in most of the districts and rain/thundershowers are likely at a few places over Gujarat State during next 24 hours and increase thereafter, apply irrigation to sugarcane, summer groundnut, summer bajra and other field and horticultural crops.
- Farmers are advised to undertake field preparation and sowing of *khari*f crops like groundnut, cotton, pulses and irrigated hybrid cotton in Saurashtra and Kutch region utilising the monsoon showers.
- Drain out water from the rice field 10 – 15 days before harvesting. Continue harvesting of already matured crops on bright sunny days.
- Arrange for harvesting matured crops of *summer* groundnut and bajra.
- 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 completed at the earliest.
- 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.
- Undertake summer ploughing after the harvest of crops. Also arrange for seeds and inputs for sowing of *kharif* crops.
- Undertake intercultural operations, spraying and application of fertilisers on a non rainy day.

Chhattisgarh

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

Advisories

- As there was no significant rainfall during last week and rain / thundershower is likely at many places with isolated heavy rainfall during next 48 hours over the State, postpone irrigation to sugarcane, vegetables and sesame. Arrange for drainage facilities to avoid water stagnation.
- Top dressing of sugarcane and maize with Nitrogen may be done at knee high stage after spells of rain.
- Prepare nursery for chilli, tomato and brinjal in shadow.
- Start land preparation and sowing of *kharif* crops like rice, maize, ginger and turmeric as southwest monsoon is advanced over the state.

Maharashtra

- Rain/thundershowers are likely at **many places** over Konkan, Vidarbha and at a few places over Madhya Maharashtra and Marathwada.

Advisories

- As rain/thundershowers are likely at **many places** over Konkan & Goa and Vidarbha, postpone irrigation to sugarcane (pre-seasonal), and sugarcane (*suru*). Provide adequate drainage facilities to protect the crops from waterlogging in Konkan as isolated heavy to very heavy rainfall is likely.
- As there was no significant rain during last few weeks and rain/thundershowers are likely at a few places over Madhya Maharashtra and Marathwada, apply irrigation to sugarcane (pre-seasonal), and sugarcane (*suru*).
- 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, sunflower, and summer rice (in South Konkan) 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, Imidaloprid @ 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.
- Land preparation and sowing of *kharif* crops may be done in Konkan, Madhya Maharashtra, Northern parts of Marathwada and Vidarbha with the onset of monsoon.

Madhya Pradesh

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

Advisories

- As rain/ thundershower is likely at many places with isolated heavy rainfall during next 48 hours over the state, postpone irrigation to *summer* sugarcane. Arrange for drainage facilities to avoid water stagnation.
- Undertake intercultural operation in sugarcane after spells of rain to keep the field weed free.
- Complete harvesting moong and urd crops in and around Jabalpur.
- Undertake intercultural operations, application of fertilizers and pesticides in *summer* cowpea, sunflower and soybean after spells of rain in and around Jabalpur.
- Continue land preparation and sowing of *kharif* crops as southwest monsoon is advanced over southern parts of the state. Undertake ploughing and arrange for inputs for sowing as monsoon is fast approaching in northern parts of the state.
- Monitor cucurbitaceous crops for red pumpkin beetle and spray Methyl Parathion @ 2 ml/litre of water after spells of rain to control the pest.

Orissa

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

Advisories

- As there was excess rainfall during last week in most of the districts except in Gajapati, Ganjam and Jharsuguda and rain/thunder showers are likely at a few places over the State during next 24 hours and increase thereafter, postpone irrigation to vegetables, moong and early sown sugarcane. Apply irrigation in the above districts as there was no significant rainfall during last week.
- 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 on a non rainy day. Also monitor the crop for leaf blight and spray Mancozeb @ 4-5 gm/litre of water on a non rainy day to control leaf blight.
- 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.
- This is proper time for sowing of maize under irrigated condition. Composites like Navjot, Shakti and hybrids like Decan-107, Decan-109 may be collected from the Govt. Sales Centres

Salient weather features for the week ending 11/06/08

MONSOON WATCH

- In association with the increased pressure gradient over the Arabian Sea and Bay of Bengal, strong southwesterly winds along west coast and scattered/fairly widespread rain/thundershower activity over west coast and east India, southwest monsoon further advanced into remaining parts of the central Arabian Sea, most parts of Konkan & Goa, some parts of Madhya Maharashtra, most parts of North Interior Karnataka, some more parts of Andhra Pradesh, some parts of Sub-Himalayan West Bengal and entire Sikkim on 7th June.
- It further advanced into some parts of north Arabian Sea, some parts of south Gujarat state, some more parts of Maharashtra & Andhra Pradesh, entire Bay of Bengal, some parts of Orissa, some more parts of West Bengal and some parts of Bihar on 9th June, into some more parts of north Arabian Sea, Gujarat, Maharashtra, remaining parts of Andhra Pradesh, Orissa and West Bengal, entire Jharkhand and some more parts of Bihar on 10th June and into some more parts of Maharashtra and most parts of Chhattisgarh and Bihar on 11th June.
- **The northern limit of monsoon as on 11th June 2008 passed through Lat 23°N/Long 60°E, Lat 23°N/Long 65°E, Okha, Rajkot, Surat, Nasik, Parbhani, Nagpur, Pendra, Chapra and Raxaul.**

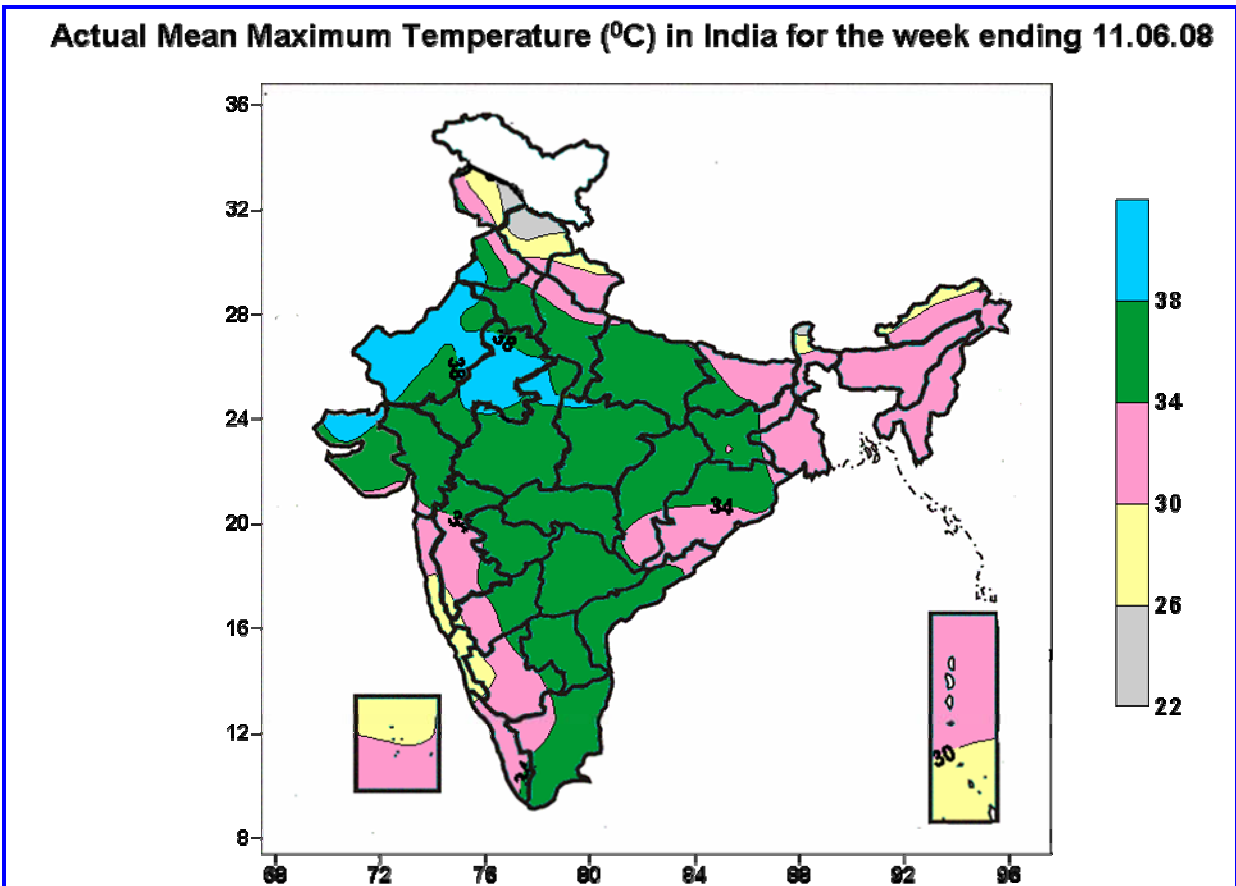
METEOROLOGICAL ANALYSIS

- Last week's low pressure area over the east-central Arabian Sea concentrated into a depression, under the favourable condition of low to moderate vertical wind shear, upper level divergent flow and stronger lower level westerlies to the south of the system. The depression lay centred at 0530 hrs. IST of 5th June over the eastcentral Arabian Sea near Lat 15.5°N/Long 66.0°E, about 800 km southwest of Mumbai. The depression moved in a north-northwesterly direction till 2330 IST of 5th June. It then moved in a west-northwesterly direction towards Oman coast. However, it weakened into a well marked low pressure area and lay at 0530 hrs. IST of 7th June 2008 over northeast and adjoining westcentral Arabian Sea and coastal Oman, mainly due to moderate vertical mid shear, colder sea surface temperature and interaction of system with land surface. It lay as a low pressure area over Oman in the morning of 8th.
- Under the influence of the above depression, southwest monsoon current strengthened over the Arabian Sea and strong surface winds prevailed along the west coast during first half of the week.
- An upper air cyclonic circulation lay over the northeast Arabian Sea & adjoining Gujarat extending upto mid-tropospheric level on 8th June. Under its influence, a low pressure area formed over the northeast Arabian Sea off Gujarat coast On 9th morning and became well marked over the same region on the 9th evening. The well marked low pressure area slightly moved westwards on 10th and lay over northwest and adjoining northeast Arabian Sea on 11th.
- An off-shore trough at mean sea level ran from south Gujarat coast to Kerala coast during many days of the week.
- An upper air cyclonic circulation extending upto mid-tropospheric level lay over the northwest Bay of Bengal off Orissa coast on 9th June. Under its influence, a low pressure area formed over north Orissa and adjoining areas of Jharkhand &

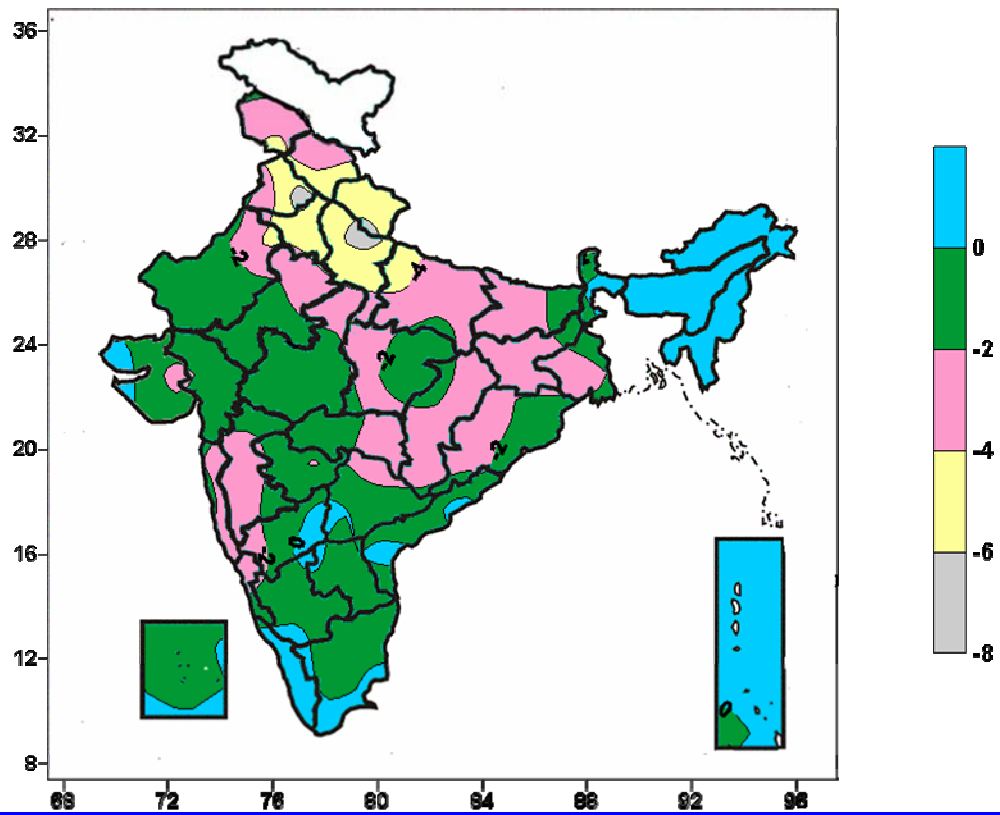
Chhattisgarh on 10th . It became less marked on 11th. However, the associated cyclonic circulation extending upto mid-tropospheric level lay over northeast Madhya Pradesh and adjoining Chhattisgarh on 11th.

- Last week's cyclonic circulation over Jammu & Kashmir and neighbourhood persisted on 5th June and moved away eastwards on 6th .
- Last week's cyclonic circulation over Haryana & neighbourhood lay over central Uttar Pradesh and neighbourhood on 5th , East Uttar Pradesh & neighbourhood on 6th and became less marked on 7th June.
- Last week's cyclonic circulation over south Pakistan and neighbourhood persisted over the same region during 5th -8th and became less marked on 9th June.
- A cyclonic circulation in lower levels lay over central Pakistan and adjoining Rajasthan & Punjab during the week.
- **Rainfall**
- Southwest monsoon was active over Coastal Karnataka on many days and over South Interior Karnataka and Konkan & Goa on a few days of the week. Scattered to fairly widespread rain/thundershower occurred over these sub-divisions on remaining days of the week. Widespread/ fairly widespread rain/thundershower occurred over Andaman & Nicobar Islands, northeastern States, West Bengal & Sikkim, Orissa, Kerala and Lakshadweep during many days of the week.
- Widespread/ fairly widespread rain/thundershower also occurred on many days over Himachal Pradesh and on a few days over Uttarakhand, Haryana, Chandigarh and Delhi.
- **Rainfall During The Week (For the week ending on 11th June, 2008)**
- Rainfall was excess/normal in 28 and deficient/scanty in 8 out of 36 meteorological sub-divisions (Actual: 40.0 mm, Normal: 29.0 mm and Departure: +38%).
- **Cumulative Seasonal Rainfall (1st June to 11th June, 2008)**
- Rainfall was excess/normal in 30 and deficient/scanty in 6 out of 36 meteorological sub-divisions. (Actual: 53.9 mm, Normal: 41.4 mm and Departure: +30%).
- The sub-division-wise weekly and seasonal rainfall distribution is presented in the enclosed map.
- **Outlook For The Week Ending On 18th June 2008**
- A low pressure area is likely to form over northwest Bay of Bengal during first half of the week. Under its influence, increase in rainfall activity likely over adjoining east India.
- Southwest monsoon is likely to advance further into some more parts of Madhya Pradesh and Uttar Pradesh during first half of the week and some parts of northwest India including Delhi during second half of the week .
- Fairly widespread/widespread rainfall with isolated heavy to very heavy falls is likely to continue along the west coast during the week.

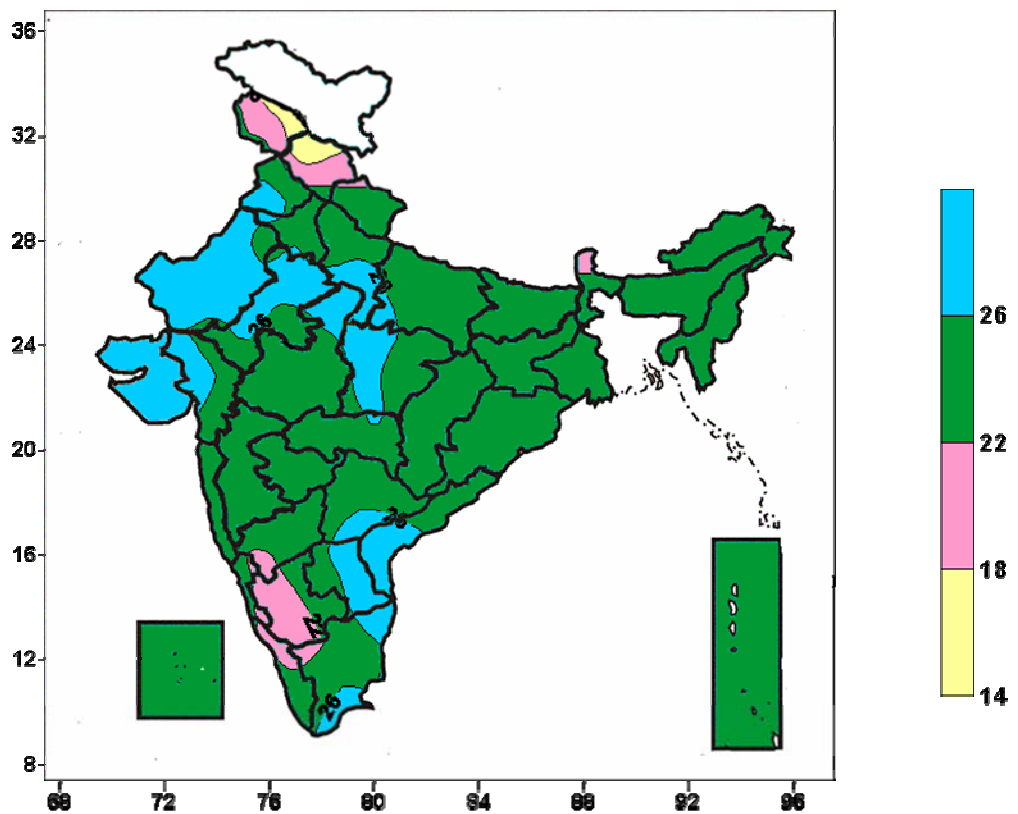
Contour maps for the week ending 11th June, 2008



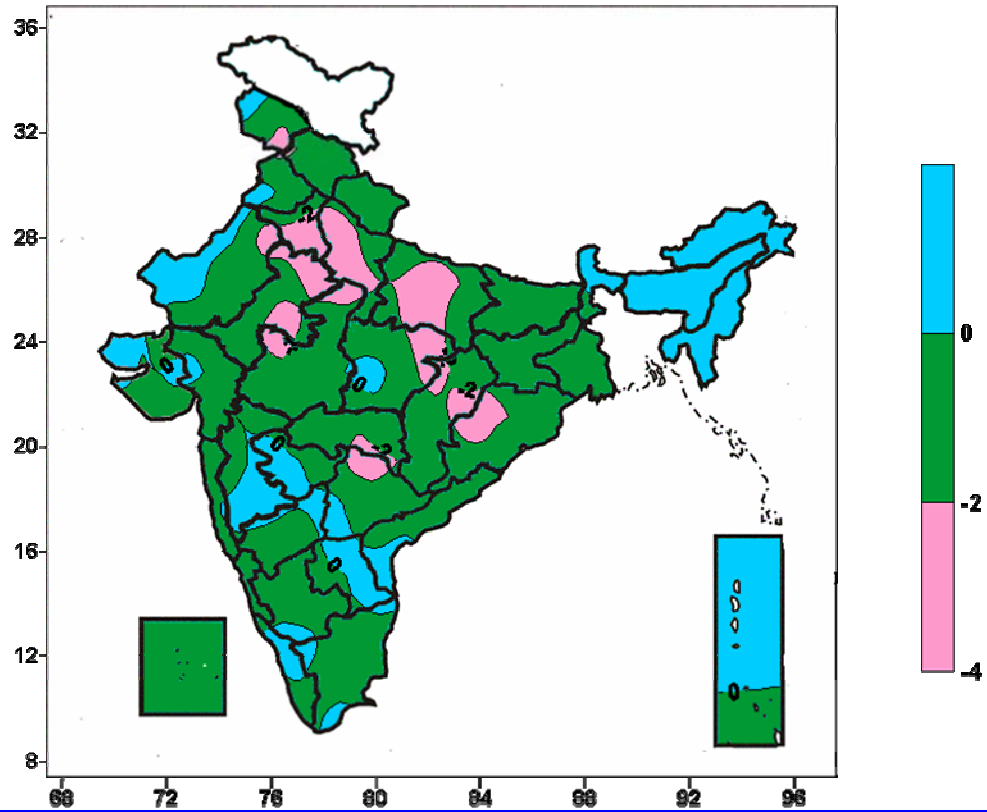
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 11.06.08



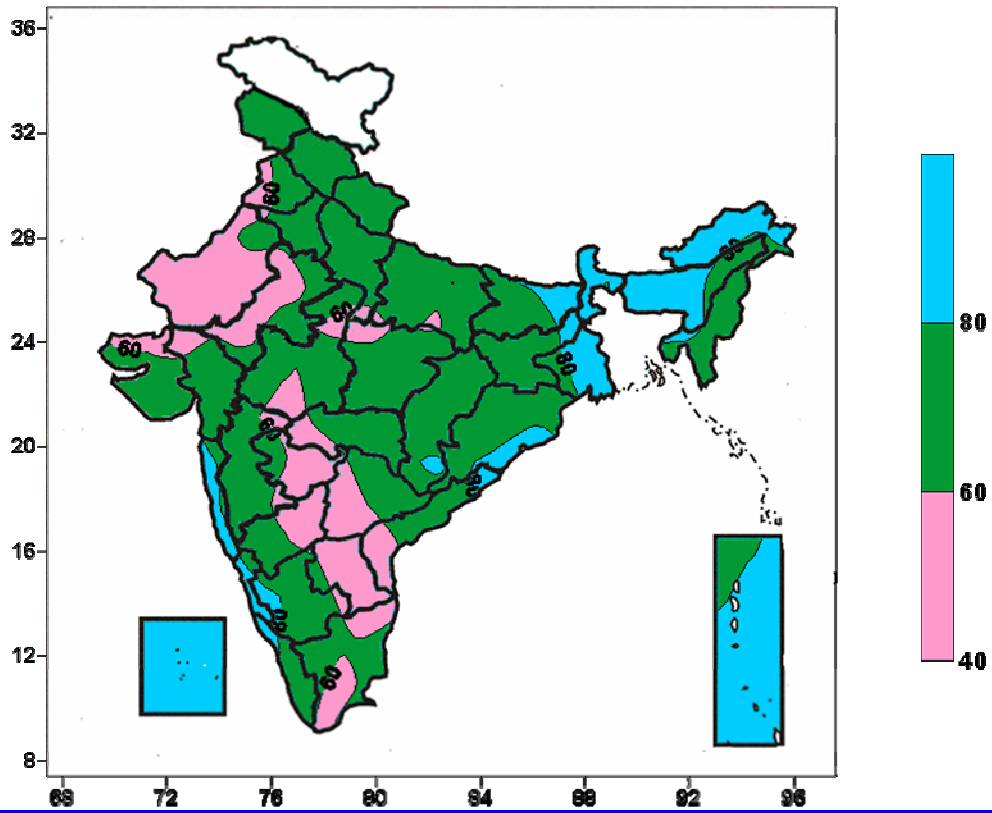
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 11.06.08



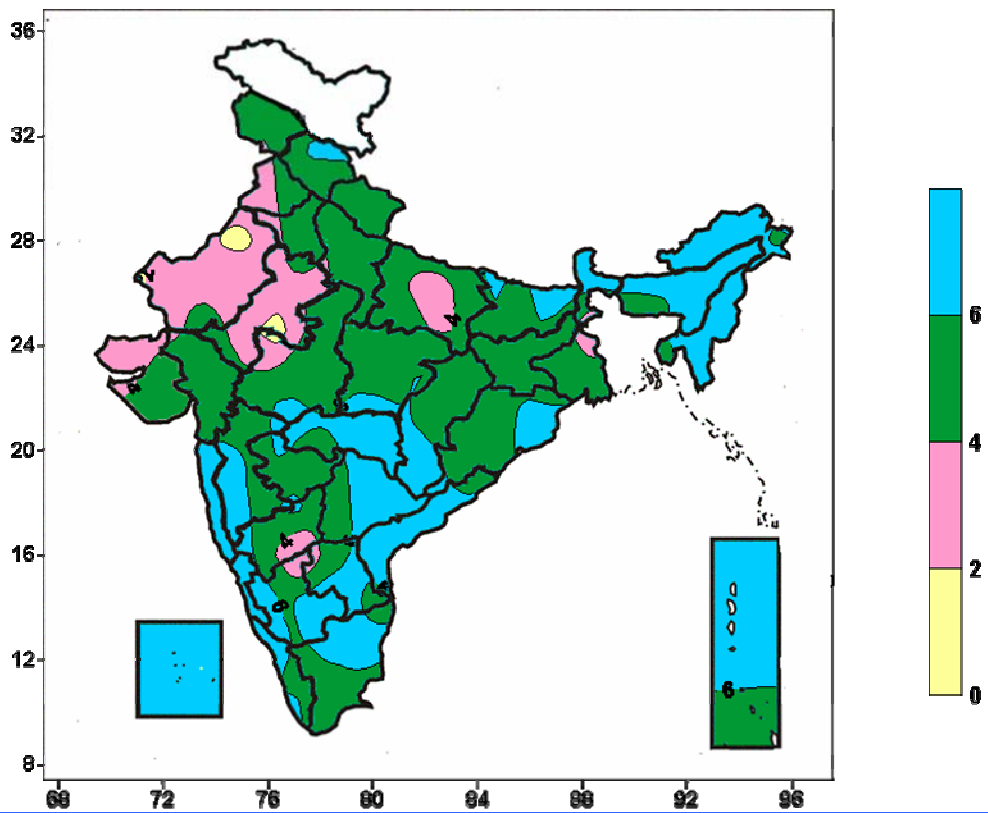
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 11.06.08



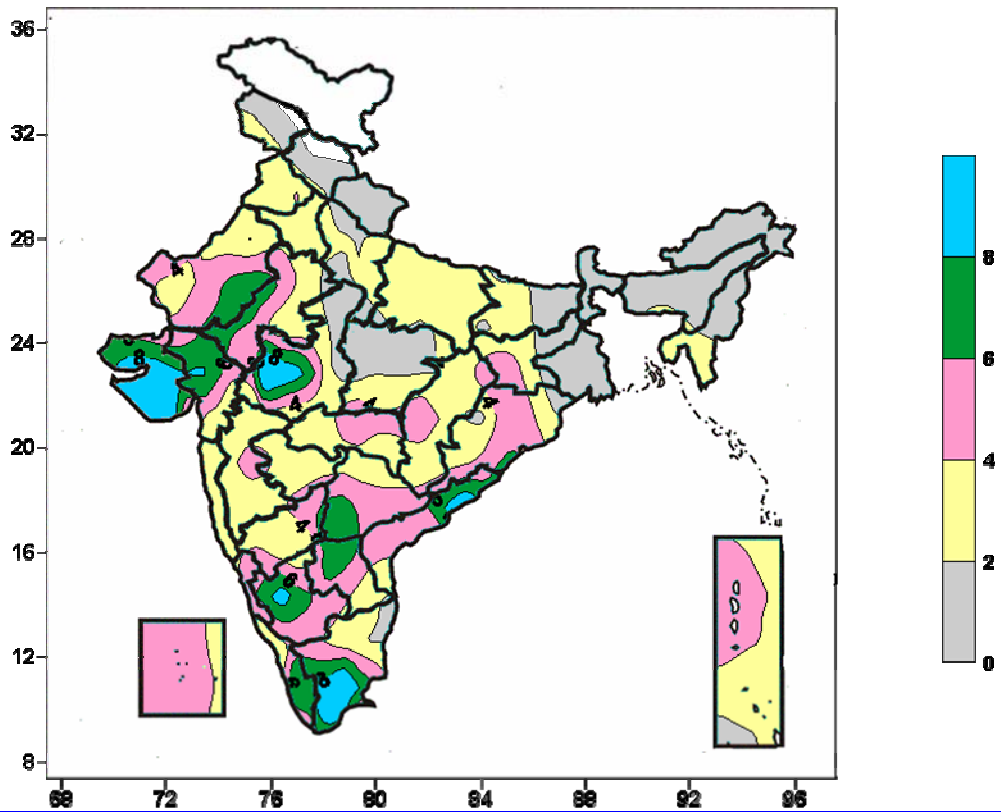
Relative Humidity (%) over India for the week ending 11.06.08



Cloud amount (okta) over India for the week ending 11.06.08



Wind speed (knots) over India for the week ending 11.06.08



Desert Locust Forecasting

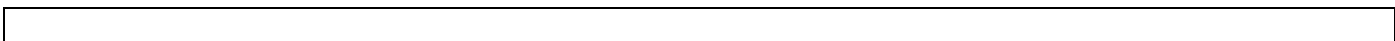


Rainfall (mm)

Station Name	05/06/08	06/06/08	07/06/08	08/06/08	09/06/08	10/06/08	11/06/08
Amritsar	00.0	14.2	00.0	00.0	00.0	-	-
Barmer	16.4	00.0	00.0	00.0	00.0	-	-
Sriganganagar	00.0	00.0	00.0	00.0	00.0	-	-
Jaisalmer	00.0	00.0	00.0	00.0	00.0	-	-
Kota	00.0	00.0	00.0	01.1	00.0	-	-
Deesa	00.0	00.0	00.0	00.0	00.0	-	-
Churu	00.0	00.0	00.0	00.0	00.0	-	-

Temperature (° C)

Station Name	05/06/08	06/06/08	07/06/08	08/06/08	09/06/08	10/06/08	11/06/08
Amritsar	31.0	29.5	30.0	30.5	28.0	-	-
Barmer	32.0	33.5	34.5	36.5	33.5	-	-
Sriganganagar	36.5	36.5	38.0	37.0	36.0	-	-
Jaisalmer	33.5	33.5	33.5	36.0	32.5	-	-
Kota	35.0	34.0	34.0	33.5	35.0	-	-
Deesa	32.0	32.0	32.5	33.5	-	-	-
Churu	35.5	36.0	-	35.0	35.5	-	-



Wind														
Station Name	05/06/08		06/06/08		07/06/08		08/06/08		09/06/08		10/06/08		11/06/08	
	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed
Amritsar	SE	06	-	-	ESE	05	-	-	SE	04	-	-		
Barmer	WSW	27	SW	24	-	-	-	-	SSW	18	S	26		
Sriganga nagar	W	27	WSW	32	-	-	-	-	SE	16	SSE	11		
Jaisalmer	SW	24	SW	32	-	-	-	-	WSW	03	S	16		
Kota	-	-	-	-	-	-	-	-	-	-	-	-		
Deesa	-	-	-	-	-	-	-	-	-	-	-	-		
Churu	W	25	WSW	20	-	-	-	-	ENE	12	SW	11		

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		
Haryana				
Autumn sugarcane	Horticultural crops	Sunflower	Summer Pulses	Cotton
Vegetative	Vegetative	Vegetative/flowering	Vegetative	Sowing
Rice				
Nursery sowing				

Himachal Pradesh

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

Jammu & Kashmir

Vegetable crops	Wheat	Pulses	Rice	
Vegetative	Harvesting	Vegetative	Transplanting	

Punjab

Autumn sugarcane	Horticultural crops	Summer pulses	Sunflower	Paddy
Vegetative	Vegetative	Vegetative	Vegetative/flowering	Land preparation for nursery sowing
Cotton				
Land preparation for nursery sowing				

Rajasthan

Cotton	Summer Vegetable crops			
Sowing	Vegetative			

Uttar Pradesh				
Summer Sugarcane	Vegetables	Summer pulses	Sunflower	Mango
Vegetative	Fruiting / harvesting	Vegetative	Vegetative	Fruit setting
Oilseeds				
Vegetative				

Uttarakhand				
Mango/Litchi	Sugarcane	Potato	Apple	
Fruiting/picking	Vegetative	Tuber maturity	Vegetative	

Assam				
Regular Ahu rice	Maize	Horticultural plants	Sugarcane	Summer vegetables
Early vegetative / tillering Transplanted-Vegetative	Early vegetative / vegetative	Planting	Vegetative	Vegetative / flowering /fruiting/harvesting
Early Ahu rice	Jute	Arhar		
Tillering	Early vegetative / vegetative	Land preparation for sowing		

Arunachal Pradesh				
Wet seeded rice	Early sown Wet seeded rice	Jhum Rice	Ginger	Maize, Millet
Land preparation /transplanting	Land preparation /transplanting	Vegetative	Vegetative / rhizome formation	Vegetative / flowering
Summer Vegetables				
Vegetative				



Bihar				
Vegetables & fruit crops	Summer Maize	Summer rice	Sugarcane	Potato
Vegetative/flowering/fruiting	Maturity	Maturity	Vegetative/flowering/ maturity	Tuber formation

Jharkhand				
Summer rice	Litchi / Mango	Vegetables (Tomato, Brinjal, Bhendi)	Wheat	Summer moong and til
Ripening/maturity	Vegetative (tree)	Vegetative / flowering / fruiting / harvesting	Harvesting	Maturity
Kharif Paddy				
Nursery bed preparation				

Sikkim				
Orange	Vegetables	Large Cardamom	Maize	
Fruiting/Harvesting	Sowing	Capsule Development / maturity	Grain maturity	

West Bengal				
Sugarcane	Jute	Sesamum	Groundnut	Green Gram
Vegetative	Germination / seedling / early vegetative / vegetative	Pod formation/seed formation/early maturity	Seed formation/early maturity	Pod formation/early maturity
Boro rice	Aus Rice	Broad casted Aman rice	Groundnut, Pigeonpea and Soybean	
Dough / early maturity/ maturity	Preparation of land	Land preparation and sowing	Groundnut – Land preparation Pigeon Pea (Arhar) : Sowing Soybean : harvesting	

Chhatisgarh				
Sugarcane	Sesame	Summer Rice	Vegetables	Green gram
Autumn sugarcane – Vegetative	Pod formation / seed formation/ early maturity	Maturity	Flowering / fruiting / harvesting	Early maturity
Sunflower	Groundnut			
Maturity	Maturity			

Gujarat				
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Sugarcane	Summer rice	Summer groundnut	Summer bajra	
Vegetative	Grain maturity / harvesting	Pod development / early maturity	Grain development/ early maturity	

Maharashtra

Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marthwada and Vidarbha)	Summer sunflower	Mango	Green gram
Elongation / cane development	Active growth / elongation	Seed maturity	Fruit development/ fruit maturity/harvesting	Harvesting
Potato (Madhya Maharashtra, Marathwada & Vidarbha)	Summer Rice	Summer bajra	Summer groundnut	Irrigated cotton
Vegetative	Grain maturity Harvesting-south Konkan	Grain maturity / harvesting	Pod maturity Harvesting- Sindhudurg	Land preparation and sowing Early sown crops - Germination

Madhya Pradesh

Sugarcane	Summer Sugarcane	Summer moong		
Grand growth	Vegetative	Harvesting		

Orissa

Vegetable crops	Rice	Sugarcane	Moong	Maize
Flowering / fruiting / harvesting	Grain harvesting	Vegetative	Vegetative	Sowing

Andhra Pradesh

Chillies	Sugarcane			
Vegetative	Vegetative			

Karnataka

Summer rice, Sunflower	Annual sugarcane	Early kharif Crops	Rabi Cotton	Kharif crops
Grain harvesting	Tillering	Early vegetative	End picking	Sowing

Kerala

Virippu- rice	Rubber	Coconut	Banana	Pepper
sowing	Planting	Land preparation for new planting	Planting	Land preparation for new planting

Tamil Nadu

Rice (Samba)	Sugarcane (Early, Mid season)	Maize/Jowar/Bajra/Samai	Groundnut/Black gram/Green gram/Red gram	Special season sugarcane
Grain maturity	Cane development / maturity	Grain maturity	Pod maturity	Grand growth
Sorghum	Cotton			
Sowing	Boll maturity/picking			
