



Summary of Agromet Advisory Services for different States of the country

Issued by

Agricultural Meteorology Division, India Meteorological
Department, Pune, India

Thursday, 3rd July, 2008

(For the period 3rd July to 7th July, 2008)

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

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

Advisories

- As there was no significant in most of the districts and rain/thundershowers are likely at isolated places over the State during next 48 hours and increase thereafter, apply irrigation to the standing crops.
- Complete transplanting of paddy by utilising the realized rainfall. Iron deficiency (interveinal chlorosis in young leaves) has been noticed in rice nursery in Ludhiana district leaves. Farmers are advised to spray the crop with 0.5-1.0 % Ferrous sulphate solution.
- Monitor the attack of thrips and *pyrilla* in sugarcane in central and western plain zone and if required spray, 350 ml Endosulfan 50 EC in 600 liter of water/acre to control the pest. In Jalandhar district, to control iron deficiency in sugarcane, spray the crop with 1% Ferrous sulphate solution and to control black bug, apply chloropyriphos 20 EC @ 350 ml/acre by dissolving in 400 litres of water with manually operated sprayer.
- Continue sowing of radish. Select varieties like Pusa chetki and Punjab Ageti.
- Continue land preparation and sowing of cotton. If cotton crop is attacked by mealy bug and tobacco caterpillar, spray the crop with 1 litre endosulphan or 800 ml quinalphos or 2 litre chloropyriphos or 800 g acephate or 250 g thiodicarb per acre. Rogue out and destroy the leaf curl infected plants.

Haryana

- Isolated rain/thundershowers are likely at places over the State during next 48 hours and increase thereafter.

Advisories

- As there was no significant in most of the districts and rain/thundershowers are likely at isolated places over the State during next 48 hours and increase thereafter, apply irrigation to sugarcane, oilseeds, pulses and horticultural crops.
- 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 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.
- Complete transplanting of rice.

- Farmers in western zone are advised to sow the bajra, guar and pulses crop in rainfed areas with certified seed for bajra (HHB 60, HHB 67, HHB 67 improved, HHB 117, HHB 146, HC 10 & HC 20); guar (HG 75, HG 365 & HG 563); groundnut (MH 2, MH 4, M 45, M13), maize(HM1, HM2, HM4, HM5 & QPM1) and moong (Asha & Muskan).

Rajasthan

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

Advisories

- Continue land preparation and sowing of bajra, sorghum, green gram, moth bean, cowpea and cluster beans in and around Jaipur, Ajmer, Dausa, Udaipur and Tonk Also undertake sowing of rainy season cucurbits like Khira, bottle gourd, ridge gourd, bitter gourd and cucumber in Tonk. Treat seeds with Bavistin @ 2 gm per kg of seeds and apply 30 kg nitrogen, 40 kg P₂O₅ phosphorus & 40 kg potash per hectare for cucurbits.
- Monitor bhendi for mosaic. To prevent further spread, spray Malathion @ 1 ml per litre water to control the vector (white fly).
- Undertake ploughing and arrange for inputs for taking up sowing of bajra (fodder), cowpea and red gram in Barmer, Churu, Jalore, Jodhpur and Pali districts and bajra, sorghum (grain and fodder), til and cluster beans in Sawai Madhepur, Karauli, Dholpur and Bharathpur districts as the monsoon is approaching over the state.
- Undertake nursery sowing of rice using early and medium duration varieties like Ratna, Manhar, Pant Dhan-12, Prasad, Pant Hybrid - 1, 3, Narendra Hybrid-2, Pusa Basmati-1, Pusa Sugandh-2, 3, Pant Sugandh-15, 17, Type-3, Basmati-370. Also undertake thinning in groundnut, red gram and cotton to maintain optimum population in Sawai Madhopur, Karauli, Dholpur and Bharathpur districts.

Uttar Pradesh

- Rain/thundershowers are likely at a many places over East Uttar Pradesh and at few places over West U.P.

Advisories

- As there was no sufficient rainfall in most of the districts of West Uttar Pradesh except Agra and Bairelly and rain/thundershowers are likely at a few places during next three days apply irrigation to sugarcane. Postpone irrigation in the above mentioned districts as there was excess rainfall during last week.
- Rain/thundershowers are likely at many places over East Uttar Pradesh with isolated heavy to very heavy rainfall, postpone irrigation to crops. Provide adequate drainage facilities to protect the crops from waterlogging.
- Continue preparation of field and undertake nursery sowing/transplanting of *Kharif* rice after current spells of rain in East U.P.
- To control internal rotten disease in mango, spray the solution of 5-6 gm Borax/litre of water.
- Weeding, hoeing, intercultural operations and application of fertilizers/pesticides in summer pulse, sugarcane and sunflower crops may be done after current spells of rain in East U.P. and on a non rainy day in West U.P.
- Continue preparation and sowing of til.

Himachal Pradesh

- Isolated rain / thundershowers are likely at places over the State during next 48 hours and increase thereafter

Advisories

- As rain is likely to occur at isolated places over the State for next 48 hours, apply irrigation to vegetables and potato.
- Undertake sowing of bhindi at a distance of 60x20 cm. Select varieties from Harbhajan, Pusa savani and P-8. Transplant the cabbage and cauliflower in High Hills Temperate Dry zone.
- There is mild chance of attack of fruit borer and blight in tomato. To control the fruit borer in tomato, spray 300 ml Endosulphan / 200 liters of water. For tomato blight spray Hexaconazole @ 100 ml or Mencozeb @ 600 g per 200 litres of water.
- Prepare land and undertake sowing / transplanting of rice.
- Continue preparation of land for sowing of maize by ploughing and mixing biological manures properly. Undertake sowing with the help of recent rain.
- There is chance of attack of San Joje Scale in apple. To control the San Joje Scale in apple spray 400 ml Chlorpyrifos per 200 liters of water only on the affected plants.
- Plucking of tea leaves can be continued at 8-10 days interval.
- Mealy bug is appearing in the tea plantation. For control spray Deltamethrin (Decis 2.8 EC) @ 1340 ml in 750 litres of water for one hectare. Spray immediately after plucking.
- It is optimum time for transplanting of summer annuals *viz.* Gladiolus, glardia, gomphrina, rudevekia, celosia, balsam cleome, kochia and zenia. Transplanting may be done in the evening.
- Weather is conducive for appearance of aphids in rose in Mild Hills Sub Humid Zone. For control, spray rogor @ 1 ml per litre of water. For the control of green beetle in roses, spray metasytox @ 1 ml per litre of water.
- Aphids are also appearing in gladiolus in High Hills Temperate wet zone. For control, spray metasytox @ 0.05%. For control of blue beetle in godetia spray metacid @0.1%

Uttarakhand

- Isolated rain/thundershowers are likely at places over the State during next 48 hours and increase thereafter.

Advisories

- As there was excess rainfall in most of the districts during last week and rain/thundershowers are likely at isolated places over the State for the next 48 hours and increase thereafter, postpone irrigation to sugarcane, vegetable crops and orchard trees.
- Undertake intercultural operations in orchards and sugarcane day to keep the field weed free.
- Continue land preparation and sowing/transplanting of *kharif* rice, groundnut, maize, amaranthus and vegetables.

Jammu & Kashmir

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

Advisories

- As rain/thundershowers is likely only at isolated places over Jammu & Kashmir during next three days, apply irrigation to the standing crops.
- Undertake intercultural operations, application of fertilizers and pesticides 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 planting of fodder maize slips in Kashmir division.
- Rouge out virus effected plants from brinjal, tomato, chillies cauliflower and cabbage crop in Jammu division.
- Undertake direct sowing of rice (var. Jaya, RR-8585, PC-19, IET-1410 and Ratna) in Jammu division with seed rate 75 kg/ha in those areas where there is no nursery planted. Before sowing treat the seeds with Thiram @ 0.3% + Streptocycline @ 100 ppm (1g/10 litre of water) or Carbedazim @ 0.2%. Apply full dose of P, K and 1/3rd dose of N as basal.
- Due the presence of sufficient moisture in the soil, top dressing of nitrogenous fertilizers may be undertaken in the vegetable crops like knoll-kholl, bhindi, pumpkin, bitter gourd, bottle gourd and sponge gourd @ 50, 30, 30, 50, 50 and 20kg/ha, respectively in Jammu division.

Delhi

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

Advisories

- The farmers who could not transplant early cauliflower seedlings till date, carry out transplanting as early as possible. Undertake transplanting of chilli in the main field during evening and also planting of seedlings of cucurbitaceous crops.
- The farmers who could not prepare nursery of cauliflower till date, carry out nursery preparation and apply formaldehyde 36% @ 1 ml / 19 litres of water to the nursery and cover the same with a black polythene for 1 week. After removing the cover don't transplant the seedlings at least for two days.
- There is chance of attack of fruit and shoot borer in brinjal due to favourable weather condition. Farmers are advised to collect the infested shoots from 15 days old plants and destroy them. Apply rogor or endosulphon @ 2 ml / litre of water to control the insect.
- There is chance of attack of fruit fly in vegetables due to favourable weather condition. Farmers are advised to collect the infested fruits and destroy them. Apply malathion @ 2 ml / litre of water to control fruit fly.
- Continue land preparation and undertake transplanting of rice. Prepare the main field by puddling and transplant 25 – 30 days old rice seedlings in the field. Transplant 2 – 3 seedlings / hill at a spacing of 20 cm x 20 cm.
- Prepare land and sow maize and arhar utilizing monsoon rain. Select varieties from Ganga-5, Ganga White, Vikram and Kissan for maize and Upas - 120 and Manak for arhar for sowing.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

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

Advisories

- As there was rainfall in rainfed areas of Kerala after a short break, farmers are advised to prepare the land and also start sowing of *kharif* crops.
- Weather conditions are conducive for mild incidences of leaf folder and stem borer in rice in and around Ernakulam, Thrissur and Palakkad. Monitor the crop for the pests and use *Trichogramma*

cards @ 2/acre on a non rainy day. Also monitor the crop for blast and sheath blight in Thiruvananthapuram due to congenial weather and spray Hinosan @ 200 ml/acre on a non rainy day in case of severe incidence.

- Monitor pepper for *Phytophthora* wilt in Ernakulam, Thrissur and Palakkad areas. Spray 1% Bordeaux mixture or *Trichoderma viride* 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.
- 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.
- Monitor bitter gourd for downy mildew in and around Thrissur. Spray Dithane M-45 @ 2.5 g/litre of water on a non rainy day to control the pest.
- Weather conditions are conducive for mild incidences of Sigatoka leaf spot in banana in and around Thiruvananthapuram. Monitor the crop for the pests and spray *Pseudomonas fluorescens* @ 2g/litre of water on a non rainy day

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.
- Continue 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.
- Undertake land preparation and sowing of maize and transplanting onion in Northwestern zone (in and around Namakkal). Adopt 8 kg seeds/acre for maize with a spacing of 60x20 cm while sowing. Transplant 45 days old seedlings for onion.
- Due to *E. coli*, death of poultry birds is reported in Northwestern zone. Poultry growers may monitor water quality and keep sanitation to prevent further spread of infection.
- The *Trypanosoma* infection may flare-up during this period in and around Chennai. As the disease is transmitted by vectors (flies) it is advisable to avoid stagnation of water near the cattle shed and maintain sanitation.
- Monitor gingelly for flower webber and sunflower for head borer in and around Kovilpatty. Spray Endosulfan or Quinalphos @ 1 litre/ha to control the pests.

Karnataka

- Rain/thundershowers are likely at many places over Coastal Karnataka and at isolated places over South Interior Karnataka and North Interior Karnataka.

Advisories

- Postpone irrigation to sugarcane in coastal Karnataka as rain/thundershowers are likely at many places over Coastal Karnataka and apply irrigation over South Interior Karnataka and North Interior Karnataka as rain/thundershowers are likely at isolated places for the next three days.

- 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.
- Continue land preparation and sowing of *kharif* crops like green gram, black gram and jowar by utilizing the monsoon showers.
- Farmers in Raichur are advised to undertake sowing of groundnut, castor, redgram and bajra can be done wherever sufficient rainfall is received with proper variety/hybrid, spacing and fertilizer dosages.
- Monitor chillies for thrips and mites in and around Dharwad. To control the pests, spray 1.7 ml Rogar + 2.5 ml Dicofol dissolved in one liter of water.
- Farmers in Dharwad are advised to undertake sowing of maize and groundnut and transplanting of rice by utilizing the monsoon showers.

Andhra Pradesh

- Rain/ thundershowers are likely at isolated places over Andhra Pradesh

Advisories

- As there was no significant rainfall during last week and rain/thundershowers are likely at isolated places over Andhra Pradesh for the next three days, apply irrigation to sugarcane.
- Monitor vegetable for damping off in and around Hyderabad. To prevent damping off in vegetable nurseries drench Copper-Oxy-Chloride @ 3g per litre of water.
- Prevailing weather is congenial for incidence of bacterial spot in pomegranate in and around Hyderabad. Spray Agrimycin @ 200 mg + Copper Oxy Chloride@ 3 g per litre of water to control the disease.
- Monitor citrus for leaf miner in and around Hyderabad. To prevent leaf miner, spray systemic insecticides like Monocrotophos @ 1.6 ml per litre of water or Dimethoate @ 2ml per litre of water at ten days interval.
- Undertake sowing of sunnhemp and dhaincha as in-situ green manure crops and greengram as catch crop/green manure crop before taking up rice.
- Continue land preparation and sowing of *kharif* crops by utilizing the monsoon showers. Undertake planting of new orchards.
- Continue land preparation and sowing of cotton in East and West Godhavari and groundnut in Anantapur.

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

Assam

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

Advisories

- Flood occurred in Lakhimpur and Dhemaji districts of Assam during 3rd week of June. Standing ahu rice and jute and nursery beds of sali rice may be affected. Farmers are advised to prepare nursery beds of sali rice at relatively upland areas and delayed transplanting may be carried out after removal of excess water from the field.

- 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 water logging.
- Maintain 3 – 5 cm of water in early ahu rice and regular ahu rice field.
- 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 hispa and stem borer and diseases like sheath blight and blast is reported in regular ahu rice from a few localities. For control of pests like Hispa, stem borer etc., Monocrotophos or Phophomidion @ 5ml per litre of water may be sprayed and for sheath blast & blast diseases use Bavistan @ 1gm/litre of water to control the disease.
- There is mild chance of attack of hairy caterpillars, semi-looper 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 fertilizers and pesticides after current spells of rain.
- For early variety of Sali rice such as Pankaj, Ranjit, Masuri, Bahadur, Manohar etc. seed bed should be prepared well. Land should be puddled thoroughly. Seed bed of size 10 m in length and 1.25 m breadth with 30 cm gap should be prepared and in each bed 20-30 kg cow dung / composed manure, 80gm urea, 80gm SSP and 40 gm MOP are to be applied and mixed well with the soil and germinated seeds are to be sown @ 650 – 1000 gm per bed depending upon the grain size. Requirement of seed per bigha is 5-6 kg.
- If nursery bed of sali rice is already ready, prepare land and start transplanting of Sali rice. Before uprooting the seedlings from the nursery, apply Carbofuran @ 3.0 g/m² area in the seedbed to protect the seedlings from stem borer, gall midge, leaf folder etc in the main field. The land should be puddled just before transplanting applying 9 Kg Urea, 16 Kg SSP and 9 Kg MOP per bigha for short duration varieties and reducing the dose of the fertilizers for local, tall varieties. The age of seedlings is 22-25 days for short duration varieties, 30-35 days for medium duration varieties and 35-40 days for long duration varieties. Transplant 2-3 seedlings per hill at spacing of 20 x 15 cm for short and semi-dwarf varieties and 20 x 20 cm for tall traditional varieties.

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 water logging.
- Undertake intercultural operations, application of fertilizers and pesticides in ginger, *summer* vegetable crops, *jhum* rice and millets after current spells of rain.

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, apply irrigation to the crops.

- Undertake intercultural operations, application of fertilizers and pesticides in ginger, wet seeded rice, *jhum* rice and millets after current spells of rain.

Jharkhand

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

Advisories

- As there was excess rainfall in most of the districts during last week and rain/thundershowers are likely at a few places over the State during next 3 days, postpone irrigation to vegetables. Provide drainage in East and West Singhbhum districts to avoid waterlogging.
- Prepare rice nursery bed in uplands of Central and North Eastern plateau zone and undertake transplanting in middle and low lands of South Eastern Plateau zone.
- Continue land preparation and sowing of *kharif* maize in western plateau zone.
- Farmers are advised to take mixed cropping of arhar + ground nut/rice, arhar + maize, arhar + soyabean, maize + urad in Uplands of western plateau zone.
- Undertake intercultural operations, spraying and application of fertilisers on a non rainy day.

Sikkim

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

Advisories

- As rain/thundershower are likely at many places over the State for next three days, postpone irrigation to orange, large cardamom, ginger and vegetable crops.
- Monitor orange for trunk borer and undertake plant protection measures after spells of rain to control the pest. Also undertake deshooting and debugging.
- Continue harvesting matured crops of large cardamom and orange on bright sunny days.
- Gap filling / replanting may be continued in newly planted large cardamom in mid and low hills up to August. Planting materials may be selected from high yielding sucker nurseries free from pest / disease infestation or diseases free high yielding elite garden. Chirke and foorkey infected plants may be destroyed by uprooting / burial at regular intervals in the pits. Regular inspections may be carried out to observe caterpillar/ shoot borer/shoot fly incidence if any and may be hand picked and destroyed mechanically. 1% Bordeaux mixture or copper oxychlorid @ 3gm/ltr of water may be sprayed to the cardamom plants after spells of rain to protect from fungal diseases.
- Continue transplanting of rice in Medium and High hills.
- Monitor ginger for bacterial wilt in Medium and High hills and collect and destroy the affected plants completely to prevent further spread of the disease.

West Bengal

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

Advisories

- Flood situation has occurred in Midnapur (Purba) and Midnapur (Paschim) districts of South Bengal. Standing crops of aus rice, jute, vegetables and seed beds of aman rice may be affected. In view of that farmers are advised to undertake following operations:-
 1. If aus rice has been damaged due to recent flood, short duration aman rice may be cultivated.
 2. Prepare seedbed in high land. If possible, prepare the same jointly.
- As rain / thundershowers are likely at many places over the state along with heavy to very heavy rain in Gangetic West Bengal during next 48 hours, postpone irrigation and intercultural operation to the crops. Arrange for draining out excess water from the field in Gangetic West Bengal. Arrange for draining out excess water from the fields of sugarcane, jute, aus rice and already sown / transplanted aman rice and already sown groundnut, pigeon pea and soybean.
- Maintain 3 – 5 cm water in the aus rice field.
- Undertake application of fertilizer, plant protection measures and sowing of crops after current spells of rain.
- For late sown jute, apply second dose of top dressing (at the stage of 5 to 6 weeks after sowing) at the rate of 6 to 7 Kg per bigha.
- Apply 1st top dressing of N to the aus rice @ 20 kg urea per bigha at 3 weeks after sowing / transplanting and 2nd top dressing at 6 weeks after sowing / transplanting.
- Due to cloudy weather and high humidity, attack of fruit rot due to fungus may be prevalent in pointed gourd. Remove the infected fruits from the land. Spray blitox (4 gm per lt) or blue-copper oxide.
- Land preparation and sowing of broadcasted aman rice may be undertaken. Select H.Y.V like Tilak, Kachhary, Patnai-23, Raghusal etc. Recommended varieties for those lands where water logging cannot take more than 6-8” are Pankaj, C.N-540, C.R- 1009, C.R-1010, C.R-1011, Sarnodhan. Complete nursery bed preparation for transplanted aman rice as early as possible. One kattah land is required for transplanting one bigha.
- Undertake sowing of groundnut, pigeon pea and soybean after current spells of rain. Select varieties from B-7, UPS-A-120 etc. for pigeon pea and J.S.-2; Soyamax etc.for soybean.
- This is the proper time for planting the coconut seedlings with a distance of 7.5 x 7.5 meter and 2 meter height of bed.

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

Gujarat

- Rain/thundershowers are likely at many places over south Gujarat and Saurashtra during next 48 hours and decrease thereafter and at a few places over north Gujarat.

Advisories

- As rain / thundershowers are likely at many places over south Gujarat and Saurashtra along with heavy to very heavy rain during next 48 hours, postpone irrigation and intercultural operation to sugarcane in these regions. Also make arrangement for draining out of excess water from the field.
- Prepare land and sow kharif crops after current spells of rain in South Gujarat region and Saurashtra. Arrange for draining out of excess water from the fields of already sown crops.
- As there is chance of occurrence of rain at a few places over North Gujarat region for next three days and increase of rainfall activity after that, farmers of this region are advised to complete preparatory tillage & land may be kept ready for sowing of kharif crops. Sowing may be done immediately after getting sufficient rain.
- Seeds should be treated with thirum or captan or mancozeb @ 4 gm/kg seeds before sowing of groundnut to control stem rot and seedling blight. Treat the seeds with Rhizobium culture

@ 250 g / 40 kg seeds. farmers are advised to raise kharif groundnut varieties GG-2 (erect) and GG-20 (semi spread) in North Gujarat under assured irrigation facilities to avoid yield loss due to delayed sowing.

- Dusting of methyle parathion 2% @ 25 kg / ha should be made on ridge / furrow before sowing of kharif cotton crop.
- Prepare land and undertake nursery sowing of kharif rice. Select the desired rice variety from early matured cultivars like Sukhvel-20, GR-3, 4, 6, 7 and late matured cultivars like GR-101, 102, 103, 104, Narmada and Masuri and prepare nursery at 25 to 30 kg seed rate per hectare.
- Prepare land and sow early pigeon pea varieties like Guj PP-1, 100, 101 at spacing of 120 X 45 cm by dibbling method and treat seeds with Rhizobium @ 25g / kg seeds.
- Undertake sowing operation of rainfed maize, bajra and other pulses.
- Undertake plan protection measures and fertilizer application after current spells of rain in south Gujarat and Sauarashtra and on a non-rainy day in North Gujarat.
- Apply 75 kg Nitrogen / ha as top dressing to sugarcane. Carry out light earthing up at 90 days after planting.
- The first topdressing of Nitrogen should be applied @ 45 kg / ha (100 kg urea) at 30 days of sowing in Hybrid / B.T. cotton.
- In early sown cotton crop, there is mild chance of attack of mealy bug infestation. If infestation crosses economic threshold level, apply monocrotophos or metasystox @ 20 ml / 10 liter of water.

Chhattisgarh

- Rain/thundershowers are likely at many places over north Chhattisgarh and at a few places over rest of the State.

Advisories

- As rain / thundershower is likely at many places with isolated heavy rainfall over North Chhattisgarh during next 48 hours, undertake sowing of crops after current spells of rain. Arrange for drainage facilities in the fields of already sown crops in North Chhattisgarh to avoid water stagnation.
- Provide mechanical support to sugarcane to avoid lodging.
- Farmers are advised to plough and prepare the fields weed free and undertake sowing of rice. The farmers are also advised to continue sowing of rice to raise nursery. For selection of healthy seeds and better germination, seeds should be soaked in 17% salt solution for some time, the unfilled seeds that came out to the surface of water should not be used for sowing. Drain out excess water from the main field and nurseries of rice in North Chhattisgarh.
- As rain / thundershower is likely at many places with isolated heavy rainfall over North Chhattisgarh during next 48 hours, undertake sowing of crops after current spells of rain. Arrange for drainage facilities in the fields of already sown crops in North Chhattisgarh to avoid water stagnation.
- Prepare nursery for chilli, tomato and brinjal.
- Farmers are advised to prepare the fields and complete the sowing of soybean. Recommended varieties for this region are JS-335, Indira Soya 9, JS 80-21, JS 93-05.
- Prepare land and undertake sowing of groundnut and black gram in transmahanadi belt of Chhattisgarh. Farmers are advised for sowing of maize, pigeon pea, green gram, *urad* and groundnut in the up land areas.
- Intercropping of pigeon pea with soybean should be encouraged. For better results, after every four rows of Soybean, 2 rows of pigeon pea should be sown by maintaining 30 cm row to row distance.

Maharashtra

- Rain / thundershowers are likely at many places over Konkan & Goa during next 48 hours and decrease thereafter. Rain / thundershowers are likely at a few places over Madhya Maharashtra and Vidarbha and at isolated places over the rest region.

Advisories

- As Ahmednagar, Jalgaon, Kolhapur, Nasik and Satara districts of Madhya Maharashtra, Bhandara, Chandrapur, Gadchiroli and Gondia districts of Vidarbha received rain during last week, postpone irrigation to the crops in these districts. As most of the remaining districts of Madhya Maharashtra, Marathwada and Vidarbha received no significant rain during last week and rain is likely to occur only at a few or isolated places for next three days, apply irrigation to sugarcane (pre-seasonal), sugarcane (suru) and irrigated cotton in these districts.
- Arrange for draining out excess water from already transplanted rice field in North Konkan.
- There is mild chance of attack of white woolly aphids and stem borer in sugarcane. For the control of white woolly aphids, spray 35% Endosulphan @ 1.5 ml or Methyl dimeton @ 1.5 ml or Dimethoate @ 1.5 ml /liter water. For the biological control of WWA, release 25000 larvae of Chrysoperla carnea or Dipha aphidivora / ha as predator. Collect the stem borer infested canes with larvae and destroy. Spray 35% Endosulfan 15 ml / 10 litre of water to control stem borer.
- There is mild chance of attack of aphids, jassids & thrips in irrigated cotton. For the control of aphids, jassids & thrips, spray 85% Phosphamidon @ 100 ml or 30 % Dimethoate @ 400 ml / ha in 500 litres of water day after 2 weeks from germination.
- Undertake application of fertilizer and plant protection measures in Konkan after current spells of rain and perform the same in Madhya Maharashtra and Vidarbha on a non-rainy day.
- Continue land preparation of main rice field and transplanting in Konkan and South Madhya Maharashtra. Prepare seed bed for raising of rice seedlings in Eastern Vidarbha. Sow seeds at the depth of 1 to 2 cms & at a distance of 7-8 cm between two rows. For rice PKV-Khamang, PKV HMT, Sindewahi-1, 5, 75, 2001, PKV Ganesh, Karjat6 & Sakoli- 6, 8 for Eastern Vidarbha zone may be selected.
- Start sowing operation in Madhya Maharashtra and Vidarbha. Farmers of Marathwada and Akola, Amravati and Yeotmal districts of Vidarbha are advised to complete preparatory tillage with the help of monsoon showers & land may be kept ready for sowing of kharif crops.
- Land may be prepared for the sowing of kharif Cotton. Select the variety from PA 402, American PH 348, Phule 492 or 388, JLH 168, JLA 794, Ganga, Parbhani Sona for sowing.
- For sowing select the varieties like Phule Pragati (JL-24), SB-11, TAG-2, Phule Unap (JL-2(1) & Phule Vyas for Kharif groundnut, ICPL-87, Vipula, BSMR-853 or 836 for Western Maharashtra Scarcity Zone and Pragati, Vipula, Amol, BMSR-853 and BSMR-736 for Western Maharashtra Plain Zone for tur, EC-68414, SS-56 & Bhanu for sunflower, JS-335, Phule-kalyani (DS-228) for Western Maharashtra Scarcity Zone, DS-228, MACS-124, JS-335 for Western Maharashtra Plain Zone and TAMS-38, JS-335 & PK-472 for Eastern Vidarbha Zone for soybean, CSH-9, CSH-14.

Madhya Pradesh

- Rain/thundershowers are likely at many places over North Madhya Pradesh and at few places over rest of the state.

Advisories

- As rain/thundershowers are at many places over north Madhya Pradesh for the next three days, postpone irrigation to sugarcane.
- As there was no significant rainfall in south Madhya Pradesh and rain/ thundershowers are at a few places for the next three days, apply irrigation to the crop.
- Undertake intercultural operations, application of fertilizers and pesticides after spells of rain in north Madhya Pradesh and on a non rainy day in south Madhya Pradesh.
- Continue land preparation and sowing of rice nursery under SRI system in and around Jabalpur. Transplant 14 days old nursery.
- Continue land preparation and sowing of *kharif* crops by utilizing the monsoon showers.
- Farmers in Ujjain, Ratlam, Shajapur, Rajgarh, Neemuch, Mandsaur, Indore and Dewas are advised to start land preparation and sowing of maize, soyabean, jowar and transplanting of vegetables like brinjal, tomato, cauliflower, chillies and onion and sowing of bottle gourd and bitter gourd in the main field by utilizing the monsoon showers. In early sown crops, undertake intercultural operations on a non rainy day.
- Monitor cucurbitaceous crops for red pumpkin beetle and spray Methyl Parathion @ 2 ml/litre of water after spells of rain in north Madhya Pradesh and on a non rainy day in south Madhya Pradesh to control the pest.

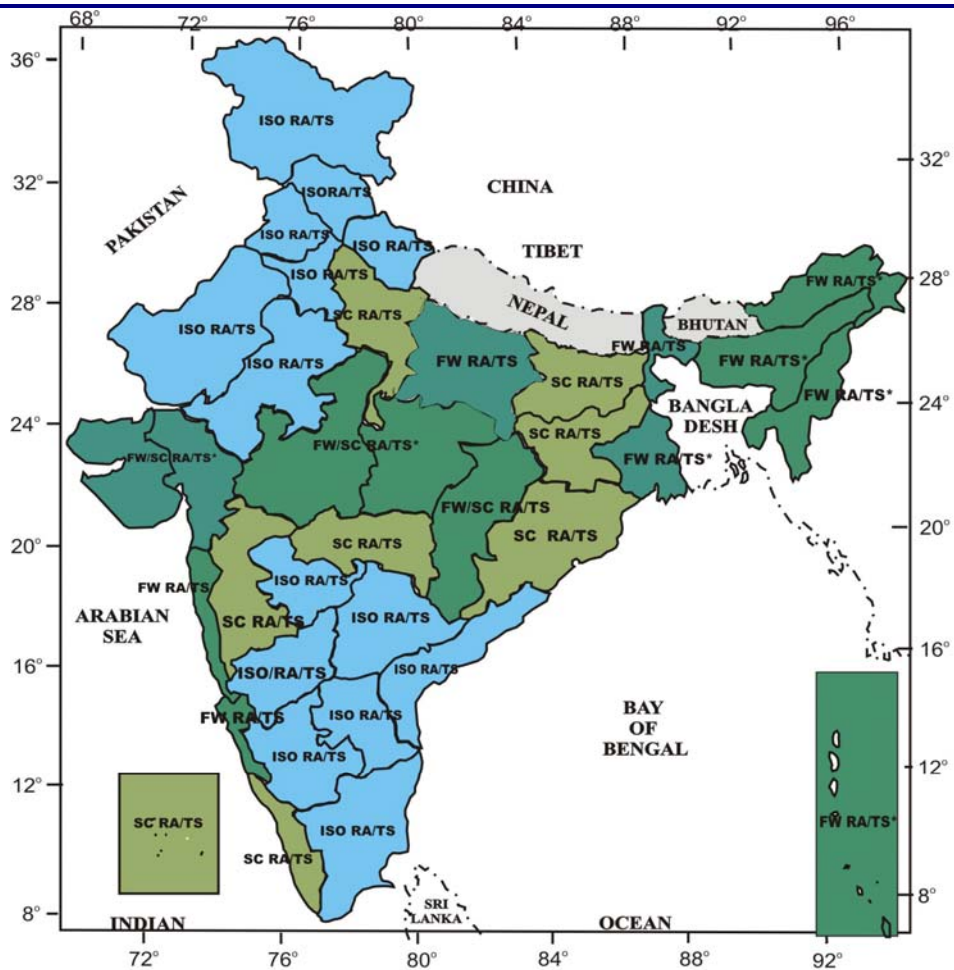
Orissa

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

Advisories

- Raise wet bed rice nursery in Kendrapara, Jagatsingpur, Khurda, Puri, Nayagarh districts. Apply urea to 15 days old seedlings in nursery.
- Continue land preparation and sowing of groundnut, arhar, sesame, ragi, cowpea, cotton under rainfed conditions.
- 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.
- Monitor sugarcane for early shoot borer and undertake need based plant protection measures on a non rainy day.

Forecast Valid upto 3rd July, 2008



ISO - Isolated, TS - Thunder shower/storm, SN - Snow,
 RA - Rain, DRY - No rain, SC - Scattered, MOD-Moderate,
 T SQ - Thunder Squall, HA- Hail. DS - Dust Storm,
 FW - Fairly Widespread
 * - With heavy Rain warning, # fog condition

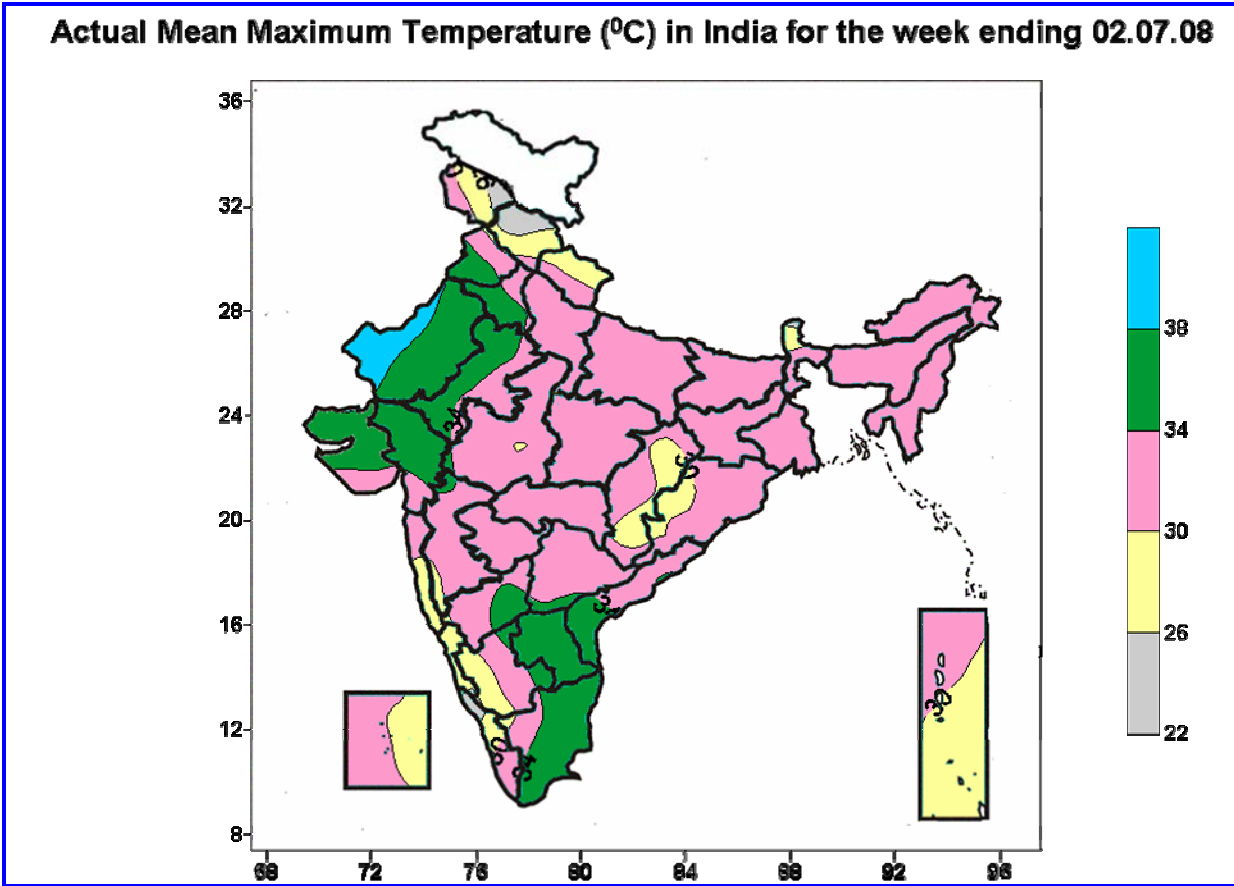
Salient weather features for the week ending 02/07/08

- MAIN EVENTS OF THE WEEK

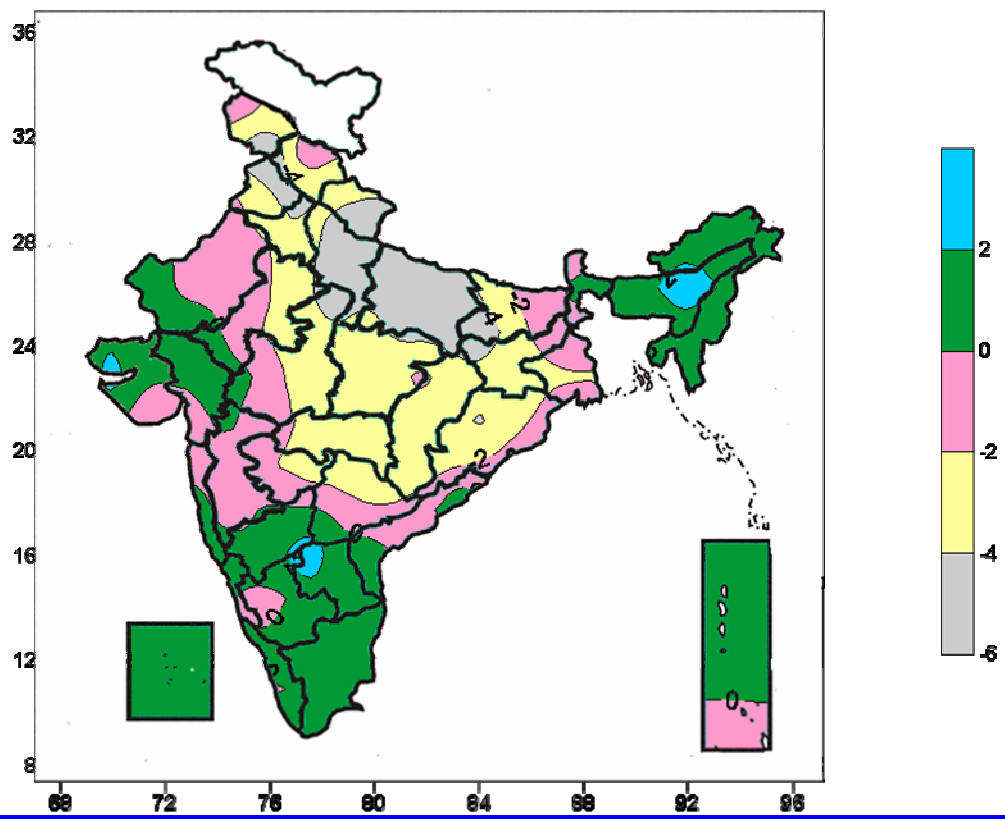
- Southwest monsoon was active /vigorous over Uttarakhand, East Uttar Pradesh and Bihar during many days of the week.
- In association with off-shore trough at mean sea level running from Gujarat coast to Kerala coast and cyclonic circulation over northeast Arabian Sea and adjoining Gujarat coast, south Gujarat region, Saurashtra, Konkan & Goa, Coastal Karnataka and Kerala experienced widespread rainfall with isolated/scattered heavy to very heavy falls during second half of the week.
- **METEOROLOGICAL ANALYSIS**
- Last week's upper air cyclonic circulation extending upto mid-tropospheric levels over the north Bay of Bengal off north Orissa and West Bengal coasts persisted on 26th. It lay over Gangetic West Bengal and neighbourhood on 27th, Jharkhand and adjoining north Orissa on 28th, Jharkhand and neighbourhood on 29th and East Uttar Pradesh and adjoining areas of north Madhya Pradesh during 30th June to 2nd July.
- An off-shore trough at mean sea level(msl) ran from Gujarat coast to Kerala coast during the week.
- An upper air cyclonic circulation lay over northeast Arabian Sea and adjoining Gujarat coast between 3.1 and 5.8 Km above msl during 27-29th, between 1.5 and 5.8 Km above msl during 30th June to 2nd July.
- Another cyclonic circulation lay over West Uttar Pradesh and neighbourhood during 27-29th and became less marked thereafter.
- The axis of the seasonal trough at mean sea level passed through north Rajasthan, south Uttar Pradesh, Jharkhand, Gangetic West Bengal and adjoining north Orissa and thence southeastwards to east central Bay of Bengal during the week.
- **RAINFALL**
- Southwest monsoon was active/vigorous over Uttarakhand, East Uttar Pradesh and Bihar on many days of the week.
- It was active/vigorous for one or two days over remaining subdivisions of east & northwest India and different subdivisions of northeast and central India. Scattered to fairly widespread rainfall occurred over these regions on many days of the week.
- Widespread rainfall/ thundershower occurred over Konkan & Goa, Coastal Karnataka and Kerala during the week with increase in intensity towards second half of the week. Southwest monsoon was also active/vigorous over these subdivisions for one or two days.
- Widespread rainfall with isolated heavy to very heavy falls occurred over south Gujarat region and Saurashtra during second half of the week.
- Isolated to scattered rainfall occurred over remaining parts of south and west India during many days of the week.
- The details of the rainfall distribution/activity during the week are given in *Table-1*.
- **Rainfall During The Week (For the week ending on 2nd July, 2008)**
- Rainfall was excess/normal in 25 and deficient/scanty in 11 out of 36 meteorological subdivisions (Actual: 62.2 mm, Normal: 57.8 mm and Departure: +8%).
- **Cumulative Seasonal Rainfall (1st June to 2nd July, 2008)**
- Rainfall was excess/normal in 28 and deficient/scanty in 8 out of 36 meteorological subdivisions. (Actual: 217.1 mm, Normal: 180.1 mm and Departure: +21%).
- The sub-division-wise weekly and seasonal rainfall distribution is presented in the enclosed map.
- District-wise distribution of excess, normal, deficient and scanty rainfall is shown in *Table-2*. A comparative data of cumulative seasonal rainfall during the corresponding period of last five years is given in *Table-3*.
- **Outlook For The Week Ending On 9th July 2008**
- Decrease in rainfall activity over the west coast during first half of the week and increase thereafter.

- Subdued rainfall activity with isolated to scattered rainfall over remaining parts of south India.
- Fairly widespread rainfall with isolated heavy to very heavy falls is likely over northeastern states during first half of the week and decrease thereafter.
- Scattered to fairly widespread rainfall over remaining parts of the country.

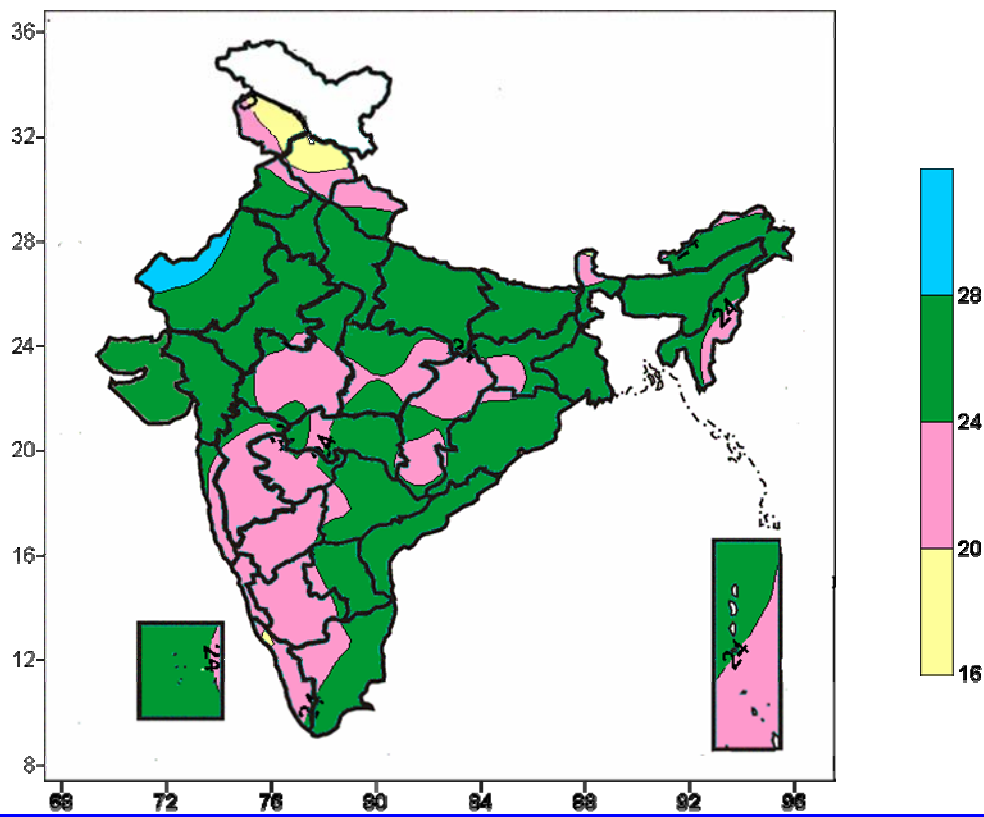
Contour maps for the week ending 2nd July, 2008



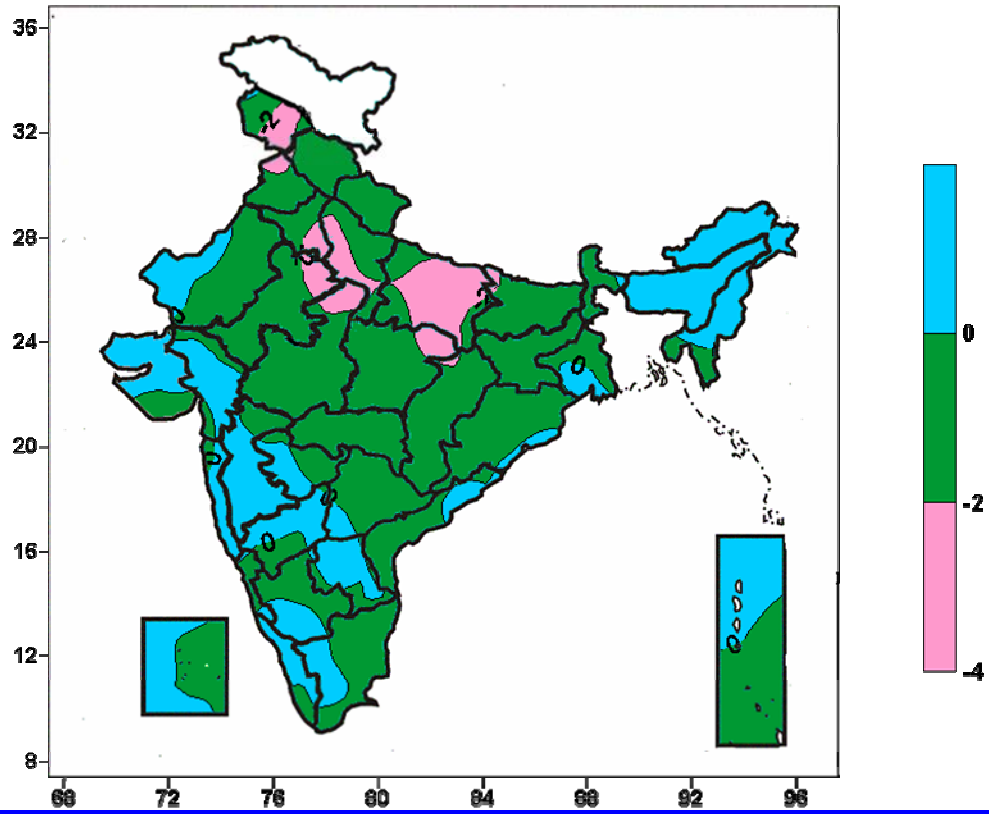
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 02.07.08



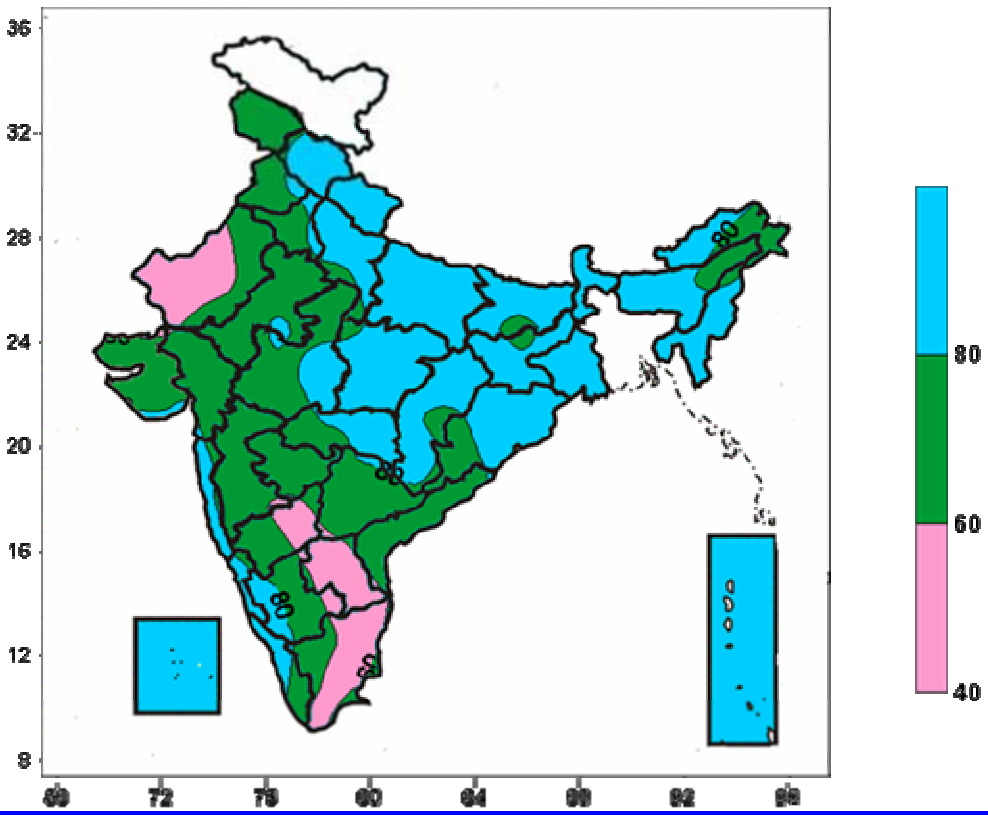
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 02.07.08



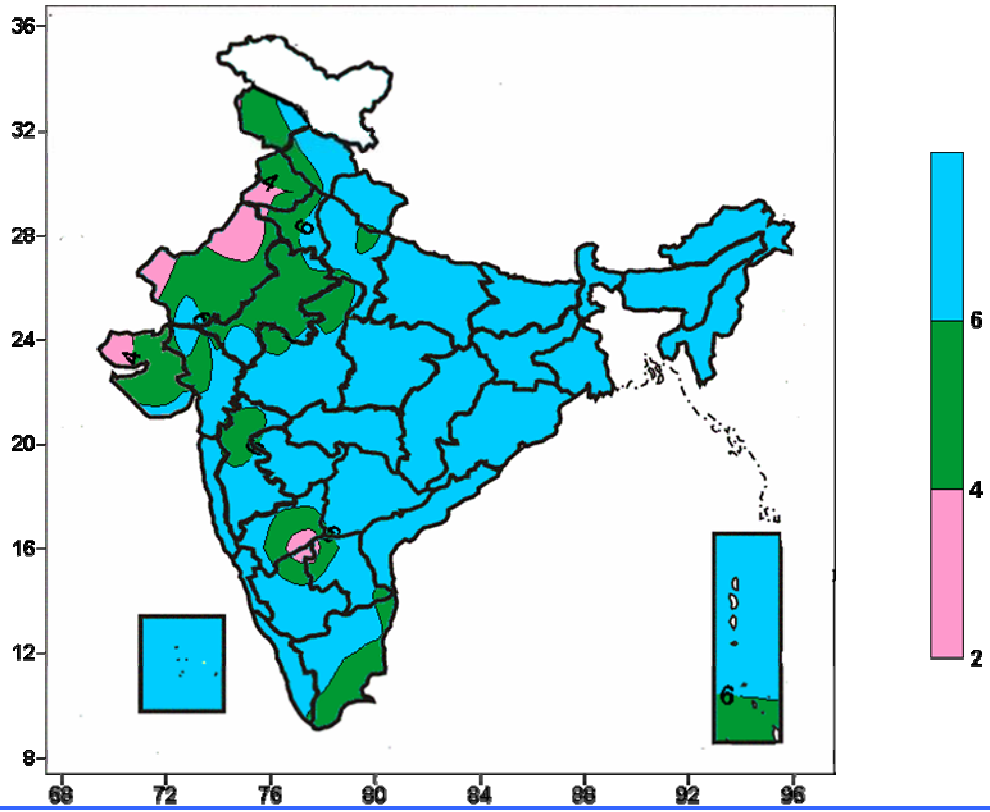
Minimum Temperature (°C) Anomaly in India for the week ending 02.07.08



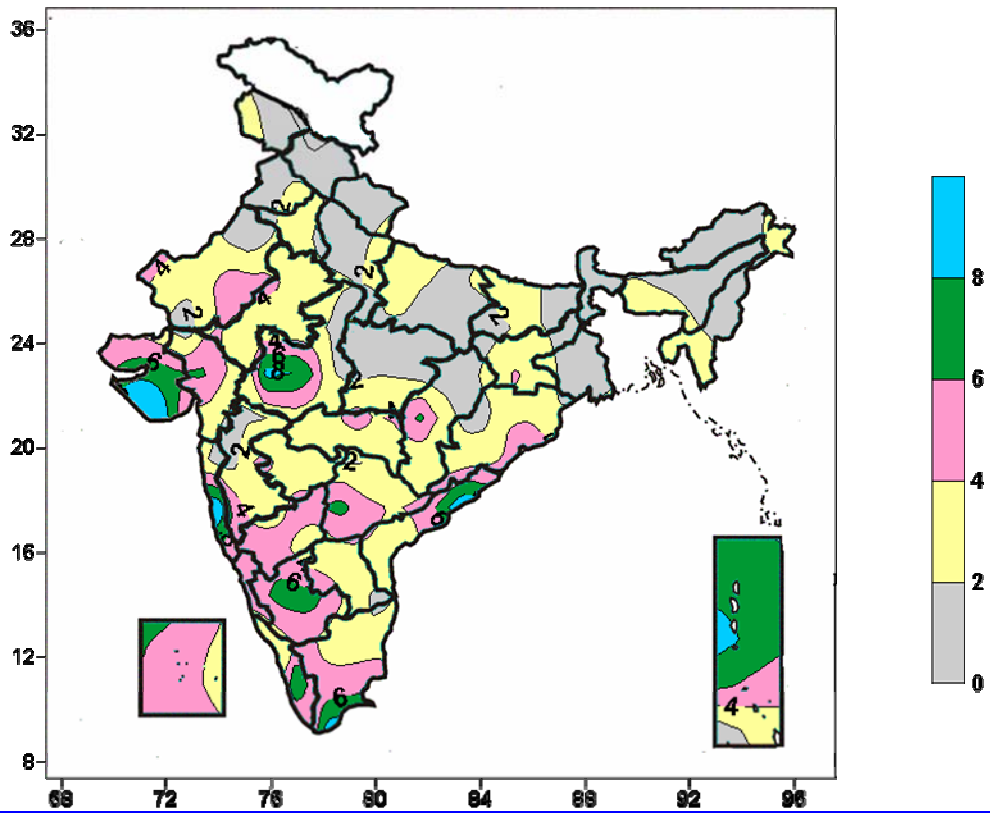
Relative Humidity (%) over India for the week ending 02.07.08



Cloud amount (okta) over India for the week ending 02.07.08



Wind speed (knots) over India for the week ending 02.07.08



Desert Locust Forecasting



Rainfall (mm)

Station Name	26/06/08	27/06/08	28/06/08	29/06/08	30/06/08	01/07/08	02/07/08
Amritsar	00.0	11.2	06.4	00.0	25.0	00.0	00.0
Barmer	00.0	00.0	00.0	00.0	00.0	00.5	34.9
Sriganganagar	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Jaisalmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Kota	00.0	42.0	35.2	44.6	02.7	00.0	00.0
Deesa	00.0	00.0	00.0	00.0	00.0	00.5	13.3
Churu	08.2	01.8	00.0	13.8	43.4	00.0	00.0

Temperature(°C)

Station Name	26/06/08	27/06/08	28/06/08	29/06/08	30/06/08	01/07/08	02/07/08
Amritsar	31.0	29.5	28.5	27.0	28.0	28.5	31.0
Barmer	34.0	34.0	33.5	35.5	36.5	33.5	32.0
Sriganganagar	36.5	36.0	34.5	32.0	33.5	34.0	35.5
Jaisalmer	33.0	33.5	33.0	34.5	35.5	35.5	35.0
Kota	32.5	30.5	25.0	30.5	30.0	31.5	32.0
Deesa	-	-	-	-	32.5	31.5	29.5
Churu	33.5	33.5	34.5	31.5	30.5	33.5	34.5

Wind

Station Name	26/06/08		27/06/08		28/06/08		29/06/08		30/06/08		01/07/08		02/07/08	
	Dir.	Speed	Dir.	speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed
Amritsar	-	-	-	-	-	-	ESE	03	ENE	05	SE	03	WNW	02
Barmer	WSW	12	SW	19	-	-	-	-	WSW	07	W	12	W	22
Sriganganagar	W	14	W	21	-	-	-	-	W	07	SE	05	SSE	11
Jaisalmer	SSW	17	SW	29	-	-	-	-	-	-	WSW	18	WSW	35
Kota	NW	15	NW	10	-	-	-	-	WNW	10	NW	13	NW	17
Deesa	SSW	08	SW	08	-	-	-	-	-	-	SSW	03	-	-
Churu	W	10	S	23	-	-	-	-	SW	14	W	11	W	11

Under the prevailing weather conditions there are chances of small-scale breeding along the **Indo-Pakistan** border.

As part of the early warning system, regular surveys are recommended.

CROP – STATE – STAGE

New Delhi

Vegetables	Arhar	Rice	Maize	
Vegetative / flowering / fruiting/ harvesting	Land preparation/ sowing	Land preparation and transplanting	Land preparation and sowing	

Haryana

Autumn sugarcane	Horticultural crops	Sunflower	Summer Pulses	Cotton
Vegetative	Vegetative	Vegetative/flowering	Vegetative	Land preparation /Sowing
Rice	Maize			
Transplanting	Land preparation /Sowing			

Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Rice	Apple	Maize
Vegetative / flowering / fruiting / harvesting	Early vegetative / vegetative	Sowing/transplanting	Fruit development	Land preparation for sowing
Tea				
Plucking				

Jammu & Kashmir

Vegetable crops	Rice	Pulses		
Vegetative	Transplanting	Vegetative		

Punjab

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

Rajasthan

Cotton	Summer Vegetable crops	Groundnut		
Seedling/early vegetative	Vegetative	Seedling/early vegetative		

Uttar Pradesh

Summer Sugarcane	Vegetables	Summer pulses	Sunflower	Mango
Vegetative	Fruiting / harvesting	Vegetative	Vegetative	Fruit setting
Oilseeds	Khari rice			
Vegetative	Land preparation and sowing/transplanting			

Uttarakhand

Mango/Litchi	Sugarcane	Potato	Apple	Khari crops(Rice, maize, groundnut and vegetables)
Fruiting/picking	Vegetative	Tuber maturity	Vegetative	Land preparation and sowing

Assam

Regular Ahu rice	Maize	Horticultural plants	Sugarcane	Summer vegetables
(B/T)Tillering	Tasseling / silking/cob formation	Planting	Vegetative	Vegetative / flowering /fruiting/harvesting
Early Ahu rice	Jute	Arhar	Early sown Arhar	Sali Rice
Grain formation/grain maturity	Olitorious –Vegetative Capsularis-Maturity	Germination/early vegetative	Germination/early vegetative	Land preparation for sowing/transplanting

Arunachal Pradesh

Wet seeded rice	Early sown Wet seeded rice	Jhum Rice	Ginger	Millet
Early vegetative	Land preparation /transplanting	Vegetative	Rhizome formation	Vegetative

Summer Vegetables	Maize			
Harvesting	Cob formation			



Bihar				
Vegetables & fruit crops	Potato	Kharif rice	Sugarcane	
Vegetative/flowering/fruitletting	Tuber formation	Land preparation and transplanting	Vegetative/flowering/maturity	

Jharkhand				
Kharif Paddy	Litchi / Mango	Vegetables (Tomato, Brinjal, Bhendi)		
Nursery bed preparation	Planting	Harvesting		

Sikkim				
Orange	Vegetables	Large Cardamom		
Fruiting/Harvesting	Seedling/early vegetative	Capsule Development / maturity		

West Bengal				
Sugarcane	Jute	Sesamum	Groundnut	Green Gram
Vegetative	Early vegetative / vegetative	Pod formation/seed formation/early maturity	Seed formation/early maturity	Pod formation/early maturity
Boro rice	Aus Rice	Aman rice	Groundnut, Pigeonpea and Soybean	Coconut
Dough / early maturity/maturity	Early vegetation/tillering	Land preparation and sowing/nursery sowing	Land preparation/Sowing	Planting

Chhatisgarh				
Sugarcane	Sesame	Kharif Rice	Vegetables	Green gram
Autumn sugarcane – Vegetative	Pod formation / seed formation/ early maturity	Sowing/nursery sowing	Flowering / fruiting / harvesting	Early maturity
Soybean	Other Kharif crops			
Land preparation for sowing	Land preparation for sowing			

Gujarat				
Sugarcane	Other Kharif crops	Kharif groundnut	Kharif cotton	Kharif rice
Vegetative	Land preparation / sowing	Land preparation / sowing	Land preparation / sowing	Land preparation / nursery sowing

Maharashtra				
Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marthwada and Vidarbha)	Summer sunflower	Kharif Cotton	Potato (Madhya Maharashtra, Marathwada & Vidarbha)
Elongation / cane development	Active growth / elongation	Harvesting- Eastern Vidarbha	Land preparation/sowing/germination	Vegetative
Irrigated cotton	Kharif Rice	Kharif Groundnut	Fruit crops	Other Kharif crops
Early vegetative/vegetative	Nursery sowing- E.Vidarbha Seedling/transplanting- Other zones	Sowing	Planting	sowing

Madhya Pradesh				
Sugarcane	Summer Sugarcane			
Grand growth	Vegetative/grand growth			

Orissa				
Vegetable crops	Kharif Rice	Sugarcane	Moong	Maize
Flowering / fruiting / harvesting	Sowing	Vegetative	Vegetative	Sowing
Jute	Pulses			
Field preparation/sowing	Vegetative			

Andhra Pradesh				
Chillies	Sugarcane			
Vegetative	Vegetative			

Karnataka				

Annual sugarcane	<i>Kharif</i> crops	Early <i>kharif</i> Crops		
Tillering	Sowing	Early vegetative		

Kerala

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

Tamil Nadu

Rice (<i>Kuruvai</i>)	Sugarcane (Early, Mid season)	Sorghum	Cotton	Special season sugarcane
Nursery sowing	Cane development / maturity	Sowing	Boll maturity/picking	Grand growth
