



Summary of Agromet Advisory Services for different States of the country

Issued by

Agricultural Meteorology Division, India Meteorological
Department, Pune, India

Thursday, 10th July, 2008

(For the period 10th July to 14th 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

- Farmers are advised to complete transplanting of rice by utilising the realized rainfall.
- Farmers are advised to continue land preparation and sowing of cotton, maize and radish varieties like Pusa chetki and Punjab Ageti wherever rain occurred.
- Provide adequate drainage facilities in already sown crops to avoid waterlogging in Gurdaspur, Hosiarpur, Nawanshahar and Ropar districts.
- As there was no significant in most of the districts during last week and rain/thundershowers are likely at a few places over the State during next 48 hours and increase thereafter, apply irrigation to the standing crops like sugarcane, vegetables and sunflower.
- 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 on a non rainy day.
- Monitor cotton crop for the attack of 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 on a non rainy day. Rogue out and destroy the leaf curl infected plants.
- 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 on a non rainy day.

Haryana

- Rain/thundershowers are likely at a few places over Haryana, during next 48 hours and increase thereafter.

Advisories

- Farmers are advised to complete transplanting of rice under the prevailing weather condition.
- Farmers are advised to prepare the fields for cotton and continue 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. Farmers in Chandigarh, Faridabad, Gurgaon and Mahendragarh are advised to drain out standing rain water from cotton field and remove the weeds/diseased plants.

- 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).
- Undertake direct sowing of radish varieties i.e. pusa chetki and Punjab Ageti.
- As there was no significant rainfall in most of the districts except Chandigarh, Faridabad, Gurgaon and Mahendragarh during last week and rain/thundershowers are likely at a few places over the State during next 48 hours and increase thereafter, apply irrigation to sugarcane, oilseeds, pulses and horticultural crops. Postpone irrigation in the above mentioned districts.
- 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 on a non rainy day.

Rajasthan

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

Advisories

- Start land preparation and sowing of kharif crops (rice, ragi, bajra) in the districts of West Rajasthan as rain occurred due to arrival of monsoon.
- Continue land preparation and transplanting of rice in and around Karauli and Dholpur. Undertake intercultural operations in already sown *kharif* crops.
- Monitor bhendi for mosaic. To prevent further spread, spray Malathion @ 1 ml per litre water to control the vector (white fly) after spells of rain in East Rajasthan and on a non rainy day in West Rajasthan.
- Undertake intercultural operations and application of fertilizers in already sown bajra (fodder), cowpea and red gram in Barmer, Churu, Jalore, Jodhpur and Pali districts on a non rainy day. Intercultural operations may be undertaken after spells of rain in bajra, sorghum (grain and fodder), til and cluster beans in Sawai Madhepur, Karauli, Dholpur and Bharathpur districts.
- 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 few places over the state during next 48 hours and increase thereafter over West Uttar Pradesh.

Advisories

- Farmers are advised to drain out the excess water from nursery beds of *kharif* rice field as heavy rainfall occurred in most of the districts during last week and flood occurred in Lakhimpur Kheri, Ayodya, Basti, Burhirapti, and Muzaffarpur districts. Sowing/transplanting may be continued after receding of flood water.
- As there was sufficient rainfall in most of the districts of Uttar Pradesh except Shraswati, Siddarthnagar districts in East U.P. and rain/thundershowers are likely at a few places in during next three days, postpone irrigation to sugarcane. Apply irrigation in the above mentioned districts as there was no sufficient rainfall during last week.
- 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 West U.P. and on a non rainy day in East U.P.

- Continue preparation and sowing of til in East and West U.P.

Himachal Pradesh

- Isolated rain / thundershowers are likely over the State.

Advisories

- As Hamirpur, Kangra, Kullu and Una districts received significant rain during last week, postpone irrigation to the crops.
- As there was no significant rain in remaining districts of the State and rain is likely to occur only at isolated places for next three days, apply irrigation to the crops.
- Undertake sowing of cucumber, summer squash and bitter gourd and transplanting of brinjal (Arka Nidhi, PPC) and cucurbits in main field in Sub-mountain & Low hills Sub tropical Zone.
- Red beetle and fruit fly attack is reported in the cucurbits in Sub-mountain & Low hills Sub tropical Zone. For control spray malathion @ 1 ml / litre or carbaryl @ 2 g / litre of water.
- Undertake sowing of bhindi at a distance of 60x20 cm. Select varieties from Harbhajan, Pusa savani and P-8.
- There is chance of attack of fruit borer and blight and leaf spot diseases in tomato in High Hill Temperate Wet Zone. To control the fruit borer in Tomato, spray 300 ml endosulphan @ 200 liters of water. To control the blight and leaf spot diseases in tomato, remove the yellowish leaves from the plant and spray 600 g Mencojob or copper axicloride in 200 liters of water in the evening.
- 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 in lower valley 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 metasystox @ 1 ml per litre of water.
- Aphids are also appearing in gladiolus in High Hills Temperate wet zone. For control, spray metasystox @ 0.05%. For control of blue beetle in godetia spray metacid @0.1%

Uttarakhand

- Isolated rain/thundershowers are likely over the rest region.

Advisories

- Continue land preparation and sowing/transplanting of *kharif* rice, groundnut, maize, amaranthus and vegetables in Tehri, Haridwar, Dehradun and Pauri districts.
- 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 three days, postpone irrigation to sugarcane, vegetable crops and orchard trees.
- Undertake inter-cultural operations in orchards and sugarcane day to keep the field weed free.

Jammu & Kashmir

- Isolated rain/thundershowers are likely 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
- Undertake sowing of kale, knoll-khol, cabbage and cauliflower and harvesting of cole crops like radish, carrot and also onion and garlic in Kashmir division.
- Continue planting of fodder maize and MP Chari slips in Kashmir division by utilizing the monsoon showers.
- Undertake sowing of *kharif* crops like maize, bajra, groundnut and til and transplanting of rice in Jammu division by utilizing the monsoon showers.

Delhi

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

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.
- Also carry out transplanting of *kharif* onion in the main field.
- 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.
- Undertake application of plant protection measures on a non-rainy day.
- 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, arhar and fodder sorghum utilizing monsoon rain. Select varieties from Ganga-5, Ganga White, Vikram and Kissan for maize, Upas - 120 and Manak for arhar and Pusa Chari 1 and 3 for fodder sorghum for sowing.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

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

Advisories

- Though the State received scanty rainfall during last week, rain/thundershowers are likely to occur at many places for the next three days. Farmers in rainfed areas are advised not to apply irrigation to the crops
- Weather conditions are conducive for mild incidences of leaf roller and gall fly and bacterial leaf blight in rice in and around Kannur, Kasragod, Kozhikode and Malappuram

and sheath blight in Thrissur. Monitor the crop and spray Ekalux @ 1 ml/liter of water to control the pest. Spray Hinosan @ 200 ml/acre to control sheath blight. Spraying of chemicals may be undertaken after spells of rain.

- Monitor pepper for Phytophthora wilt in Thrissur and for foot rot in Kannur, Kasragod, Kozhikode and Malappuram. Spray 1% Bordeaux mixture or Trichoderma viride after spells of rain to control the disease.
- Attack of mahali disease is reported in arecanut in Thrissur. Apply 1% Bordeaux mixture after spells of rain to control the disease.
- Monitor ginger for soft rot due to stagnation of water in and around Thrissur. Collect and destroy the affected plants.
- Weather conditions are conducive for mild incidences of Sigatoka leaf spot in banana in and around Kannur, Kasragod, Kozhikode and Malappuram. Monitor the crop for the pests and spray Indofil M 45 @ 3g/litre of water after spells of rain to control the disease

Tamilnadu

- Rain/thundershowers are likely at isolated places 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 the State.
- Start transplanting 24 days old seedlings of *kuruvai* rice in the main field.
- Undertake land preparation and sowing of bitter gourd, snake gourd and pumpkin in Northwestern zone (in and around Namakkal).
- 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 in cattle during this period in Chennai, Cuddalore, Kanchipuram, Thiruvavur, Thiruvannamalai, Vellore and Villupuram districts. As the disease is transmitted by vectors (flies) it is advisable to avoid stagnation of water near the cattle shed and maintain sanitation.
- Monitor sorghum for stem borer in Thirunelveli, Tuticorin and Virudhunagar districts. Spray Carbaryl 4% granules to control the pests.

Karnataka

- Rain/thundershowers are likely at many places over Coastal Karnataka during 48 hours and at a few places thereafter. Rain/thundershowers are likely at isolated over the rest of the state.

Advisories

- Postpone irrigation to sugarcane in coastal Karnataka as rain/thundershowers are likely at many places over Coastal Karnataka
- Apply irrigation over South Interior Karnataka as rain/thundershowers are likely at isolated places for the next three days.
- Farmers in North Interior Karnataka are advised to undertake drum seeding of sprouted seeds of rice due to delay in rainfall.
- Continue land preparation and sowing of vegetable crops like onion and chilly by utilizing the monsoon showers in Bijapur. Monitor citrus for canker and spray Streptocyclin Sulphate @ 0.5 g + Copper oxy chloride @ 2.5 g/litre of water.

- Weather conditions are congenial for the attack of leaf spot and downy mildew in vegetable crops in Mysore and Mandya. Monitor the crops for the diseases and undertake plant protection measures.
- Farmers in Brahmawar, Dakshin Kannada and Udupi are advised to undertake transplanting of rice.
- 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. Undertake intercultural operations in early sown crops.
- Due to insufficient rainfall, undertake direct sowing of ragi in stead of maize in Shimoga.

Andhra Pradesh

- Rain/thundershowers are likely at a few places over north Coastal Andhra Pradesh and isolated over the rest of the state

Advisories

- As there was no significant rainfall during last week and rain/thundershowers are likely at a few/isolated places over Andhra Pradesh for the next three days, apply irrigation to sugarcane.
- Monitor vegetable for damping off and mealy bugs in and around Hyderabad. To prevent damping off in vegetable nurseries drench Copper-Oxy-Chloride @ 3g per litre of water. To prevent mealy bug attack, remove and destroy the alternate hosts.
- 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

- Light to moderate rain occurred at isolated places on 7th, 8th & 9th with isolated rather heavy falls on 7th over the state.
- 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 and intercultural operation to the crops. Provide adequate drainage facilities to avoid water logging.
- Maintain 3 – 5 cm of water in 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.
- Prepare land and undertake transplanting of Sali rice. Recommended paddy varieties are Ranjit, Mahsuri, Bahadur, Kushal etc. 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.
- Prepare land and sow cauliflower, tomato, cucumber, capsicum etc. as early season crop after current spells of rain. The early varieties of cauliflower like Pusa keteki, Pusa deepali, Early kuwary, Early Chinese Prince, Jowahar moti etc can be sown within 15th July to 15th August.

Arunachal Pradesh

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

Advisories

- Farmers are advised to drainout the flood water in the wet seeded rice and ginger fields as flood situation occurred in the State.
- As rain / thundershowers are likely at many places with isolated heavy to very heavy rainfall during next 48 hours over the State, postpone irrigation to the millet and maize crops. Provide adequate drainage facilities to avoid waterlogging.
- Undertake intercultural operations, application of fertilizers and pesticides in ginger, wet seeded rice, *jhum* rice and millets after current spells of rain.

Bihar

- Rain/thundershowers are likely at a few places over the State for next 3 days.

Advisories

- As there was sufficient rainfall in most of the districts and rain/thundershowers are likely at a few **places** over the State during next 3 days, postpone irrigation to early sown maize, sugarcane and vegetables.
- Continue field preparation and undertake transplanting of *Kharif* rice.
- Sowing of *kharif* vegetables like brinjal, onion, and chilies may be sown in nursery bed.
- 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 on a non rainy day.

- 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 on a non rainy day.
- Monitor the sugarcane crop for shoot borer incidence. If attack crosses economic threshold level, apply pesticides on a non rainy day.
- Undertake intercultural operations, spraying, application of fertilisers on a non rainy day.

Jharkhand

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

Advisories

- Farmers are advised to prepare rice nursery bed in uplands of Central and North Eastern plateau zone and continue to undertake transplanting in middle and low lands of South Eastern 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.
- Continue land preparation and sowing of *kharif* maize in western plateau zone.
- As there was sufficient 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.
- 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
- . 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 oxychloried @ 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.
- Undertake earthing up and application of compost in seed potato after spells of rain.
- 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

- SW-Monsoon was active over GWB on 9th July. Rainfall occurred at an isolated places on 7th and 8th and at a few places over SHWB. Rainfall occurred at most places on 7th, at a few places on 8th and at most places, heavy at an isolated places on 9th over GWB.
- 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 and intercultural operation to the crops.
- 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 2nd top dressing of N to the *aus* rice @ 20 kg urea per bigha 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.
- Wherever rice nurseries are ready, start land preparation and transplanting of aman rice. Transplant 2 – 3 seedlings of 20 – 25 days in line at a distance of 20 cm from line to lind and 15 cm from plant to plant.
- 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.
- Prepare nurseries for early cauliflower. Treat the seeds before sowing. Cover the bed with polythene and ensure proper drainage.

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

Gujarat

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

Advisories

- As rain / thundershowers are likely at many places over Gujarat Region, postpone irrigation and intercultural operation to the crops in this region. As Saurashtra and Kutch region received no significant rain during last week and rain / thundershowers are likely at a few places over these regions, apply irrigation to sugarcane.
- As there was rain in the districts of South Gujrat and Saurashtra and there is chance of occurrence of rain during next three days, prepare land and sow groundnut.
- As there is chance of occurrence of rain over North Gujarat region also for next three days, farmers of this region are advised to undertake land preparation and sowing of groundnut.

- 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).
- Dusting of methyle parathion 2% @ 25 kg / ha should be made on ridge / furrow before sowing of kharif cotton crop. Hybrid varieties for cotton crop like HC-4, 6, 8 and 10 and Deshi cotton varieties as per area should be selected for kharif season.
- 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. Also prepare land and undertake transplanting of rice. Transplant 4-5 leaved erect seedlings at 20 cm x 15 cm spacing and place two seedlings per hill. It is desirable to keep water level low at the time of transplanting.
- 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. For kharif bajra certified varieties like GHB- 315, 316, 577, 558 and MH-169 and MH-179 (seed rate 3.75 to 4.75 kg / ha) should be selected for sowing.
- Undertake plan protection measures and fertilizer application in Gujarat region after current spells of rain and Sauarashta and Kutch region on a non-rainy day.
- In early sown cotton crop, there is mild chance of attack of mealy bug infestation. If infestation crosses economic threshold level, apply monocrotophos or metasytox @ 20 ml / 10 liter of water.

Chhattisgarh

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

Advisories

- As there was rain in most of the districts of the State during last week and rain / thundershower is likely at a few places over the State for next three days, postpone irrigation to the crops.
- Provide mechanical support to sugarcane to avoid lodging.
- Farmers are advised to plough and prepare the fields weed free and undertake sowing / transplanting of rice. Under the present weather conditions undertake transplanting of 20 – 25 days old seedlings of rice. The spacing between plant and row should be 20 x 15 cm. For medium duration varieties two plants per hill and for hybrids one plant per hill should be transplanted.
- There is mild chance of attack of blast disease in rice nurseries. For protection of nursery from blast disease, spray Hinosan @ 0.2% or Civic @ 0.6% on a non-rainy day.
- Prepare nursery for chilli, tomato and brinjal.
- Undertake sowing of okra as soon as possible. To save the crop from Yellow vein mosaic resistant varieties such as Pusa Vaibhav, Akra Anamika and Pusa Savani should be chosen.
- 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.
- Farmers are advised to undertake intercropping of pigeon pea with soybean. 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 and at a few places over rest of the State.

Advisories

- As the districts of Madhya Maharashtra, Marathwada and west Vidarbha received no significant rain during last week and rain is likely to occur only at a few places for next three days, apply irrigation to sugarcane (pre-seasonal), sugarcane (suru) and irrigated cotton in these regions.
- 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, Marathwada 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 Nashik, Nandurbar and Pune districts of Madhya Maharashtra and Vidarbha. Farmers of Marathwada and Akola, Amravati and Yeotmal districts of Vidarbha and Ahmednagar, Dhule, Jalgaon and Solapur districts of Madhya Maharashtra are advised to complete preparatory tillage with the help of limited 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, SPV-462, SPV-475 and SPV-946 for kharif sorghum and Shradha, Saburi, MH-179, WCC-75, ICTP-8203 and ICMV-211 for bajra.

Madhya Pradesh

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

Advisories

- As rain/thundershowers are likely at many places over Madhya Pradesh for the next three days, postpone irrigation to sugarcane. Arrange for drainage facilities to avoid water stagnation due to excess rainfall.
- Undertake intercultural operations, application of fertilizers and pesticides after spells of rain.
- Continue land preparation and sowing of maize, jowar and soyabean in and around Jabalpur.
- 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 after spells of rain.
- Monitor cucurbitaceous crops for red pumpkin beetle and spray Methyl Parathion @ 2 ml/litre of water after spells of rain to control the pest.

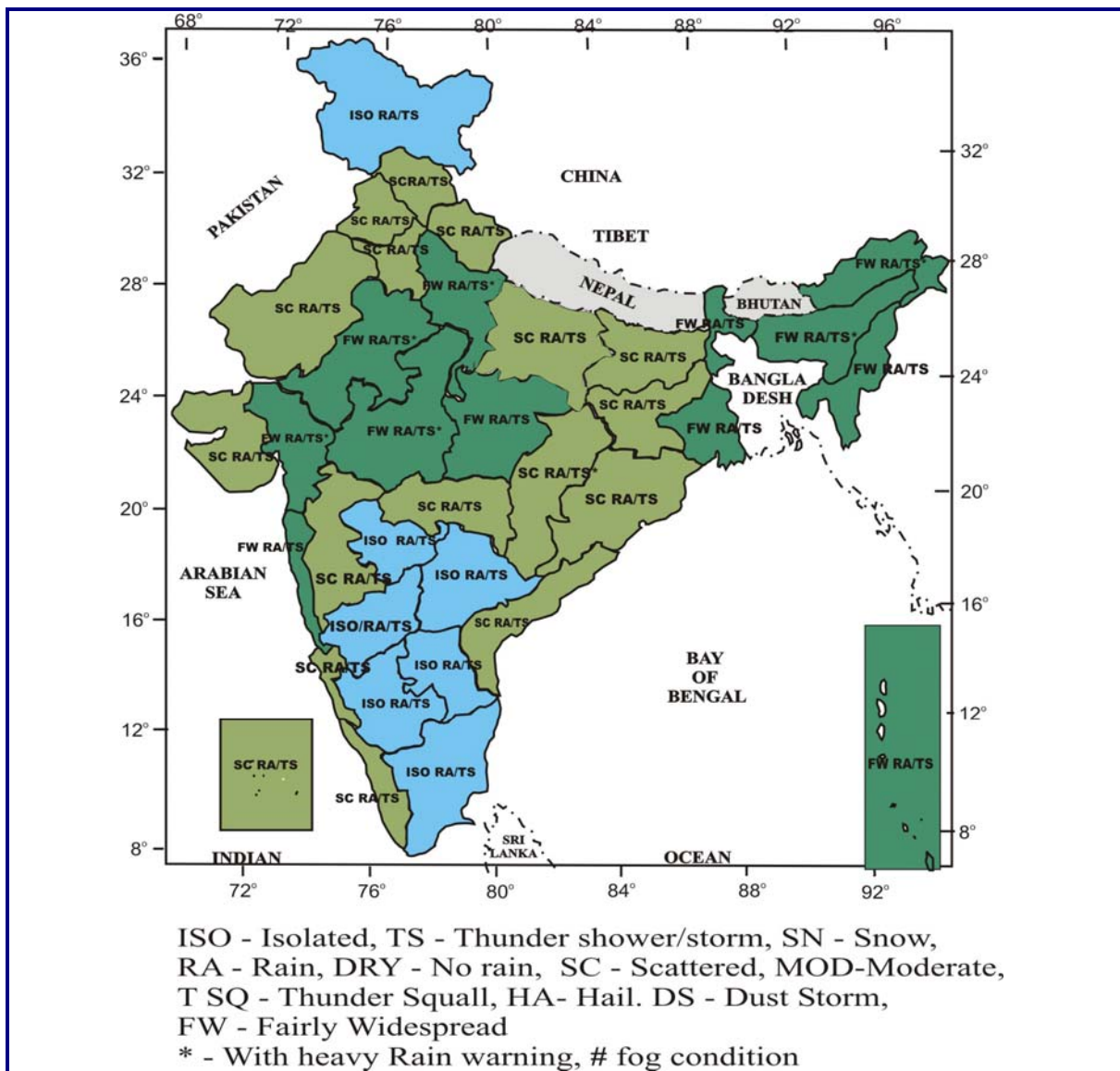
Orissa

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

Advisories

- Farmers are advised to undertake sowing of rice in the uplands of western Orissa, with extra early varieties like Kalinga-3 and Heera. If not available go for early duration varieties like Khandagiri, Pathara and Parijat.
- Farmers are advised to continue land preparation and sowing of groundnut, arhar, sesame, ragi, cowpea, cotton under rainfed conditions. Select early duration arhar varieties like UPAS-120 and IPCL-86012. Complete sowing of cotton in this week without further delay.
- Farmers are advised to utilize the realized rainfall and take up the planting of mango varieties Baganpalli, Totapuri, Bombay green, Suvarnarekha, Himsagar, Dusseheri, Chousa, Amrapalli, and Alphanso etc. in coastal zone as July and August is ideal time of planting.
- 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 10th July, 2008



Salient weather features for the week ending 09/07/08

MAIN EVENTS OF THE WEEK

- A low pressure area formed over north Bay of Bengal and adjoining areas of West Bengal & Bangladesh on 7th morning and moved across Gangetic West Bengal and Jharkhand during 7-9th. Under its influence fairly widespread rainfall with isolated heavy to very heavy falls occurred over Gangetic West Bengal, Jharkhand, Orissa and Chhattisgarh during 7-9th.
- Subdued rainfall activity continued over peninsular India.

METEOROLOGICAL ANALYSIS

- Last week's cyclonic circulation extending upto mid-tropospheric levels over East Uttar Pradesh and adjoining areas of north Madhya Pradesh lay over East Uttar Pradesh and neighbourhood on 3rd. It lay over the same region extending upto 4.5 Km above mean sea level (amsl) on 4th and over West Uttar Pradesh and neighbourhood extending upto 3.1 km amsl during 5-7th. It lay over West Uttar Pradesh and

neighbourhood extending upto 4.5 km amsl and tilting southwestwards with height on 8th. It lay over the same region and extended upto 1.5 km amsl on 9th.

- An off-shore trough at mean sea level ran from Karnataka coast to Kerala coast during many days of the week. However, the pressure gradient along the coast remained weak.
- An upper air cyclonic circulation extending upto mid-tropospheric levels lay over Bangladesh and adjoining areas of Gangetic West Bengal and north Bay of Bengal on 6th. Under its influence, a low pressure area formed over the north Bay of Bengal and adjoining coastal areas of West Bengal and Bangladesh on 7th. It persisted over the same region and became well marked on 8th. The well marked low pressure area lay over Jharkhand and neighbourhood on 9th.
- The axis of the seasonal trough at mean sea level passed through north Rajasthan, south Haryana, south Uttar Pradesh, Jharkhand, Gangetic West Bengal and thence southeastwards to east central Bay of Bengal during the week.
- Last week's upper air cyclonic circulation over northeast Arabian Sea and adjoining Gujarat coast became less marked on 3rd July.
- A cyclonic circulation in lower levels lay over Punjab and neighbourhood on 3rd & 4th and became less marked on 5th.

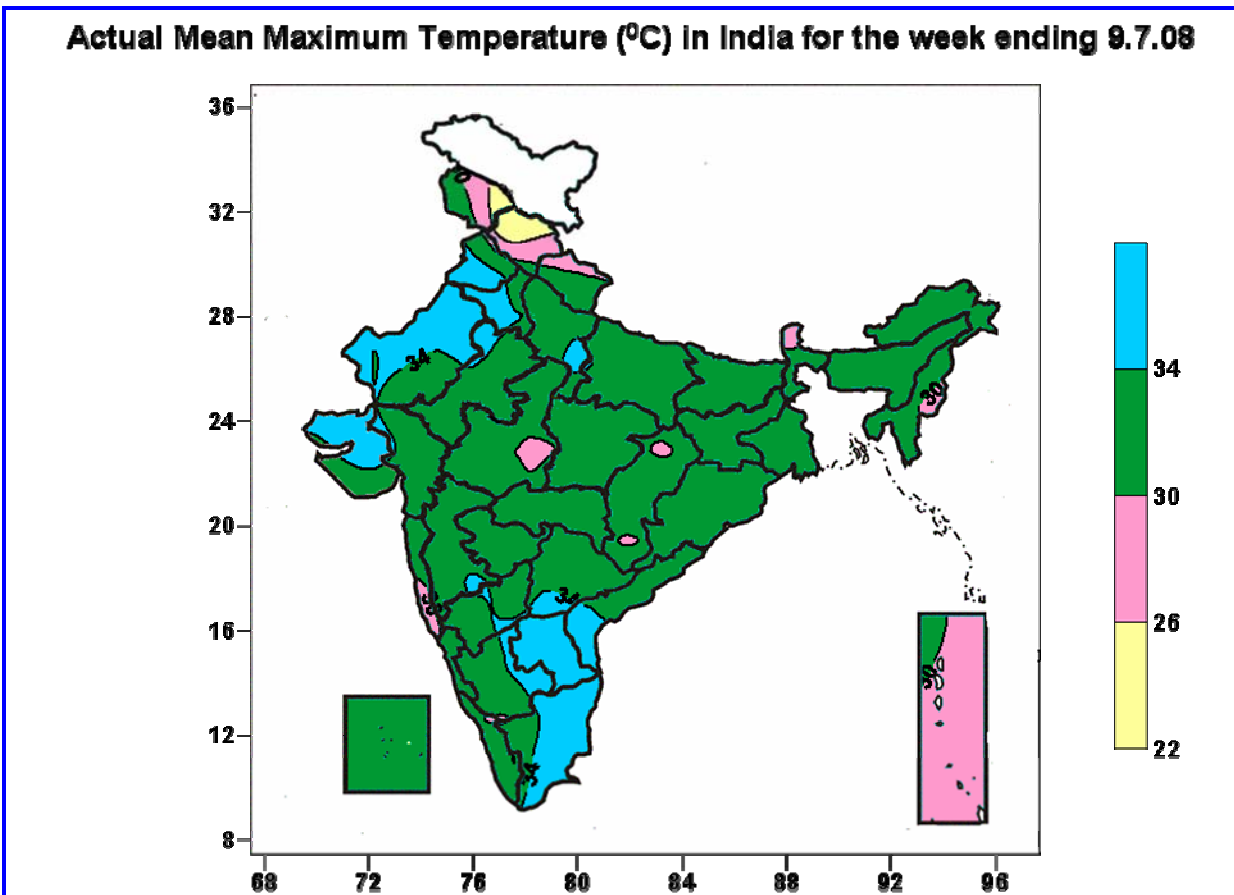
RAINFALL

- Widespread/ fairly widespread rain/thundershower occurred over East Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, Arunachal Pradesh and Assam & Meghalaya during first half of the week and decreased thereafter.
- The rainfall was isolated to scattered over Orissa, Gangetic West Bengal and Chhattisgarh during first half and became widespread/ fairly widespread during second half of the week.
- However, widespread/fairly widespread rainfall occurred over Nagaland, Manipur, Mizoram & Tripura and Jharkhand during many days of the week.
- Fairly widespread rainfall occurred over Uttarakhand and West Uttar Pradesh during many days and over Haryana, Chandigarh & Delhi, Himachal Pradesh and East Rajasthan during second half of the week.
- Widespread/ fairly widespread rain/thundershower occurred over Konkan & Goa and Coastal Karnataka during the week and over Kerala during second half of the week
- Isolated to scattered rain/thundershower occurred over remaining subdivisions of the country during many days of the week. Rainfall was scanty over south India during the week.

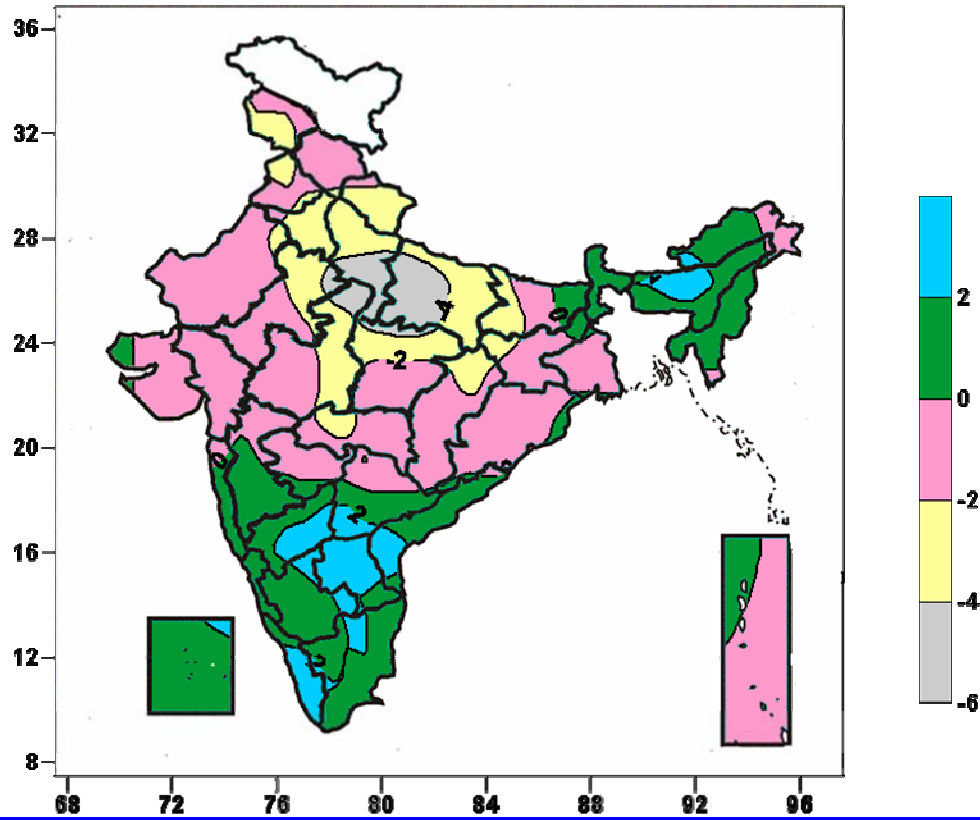
Outlook For The Week Ending On 16th July 2008

- Subdued rainfall activity is likely over Central India.
- Subdued rainfall activity over south India is likely to continue.
- Fairly widespread rainfall with isolated heavy to very heavy falls is likely over northeastern states and Gangetic plains.

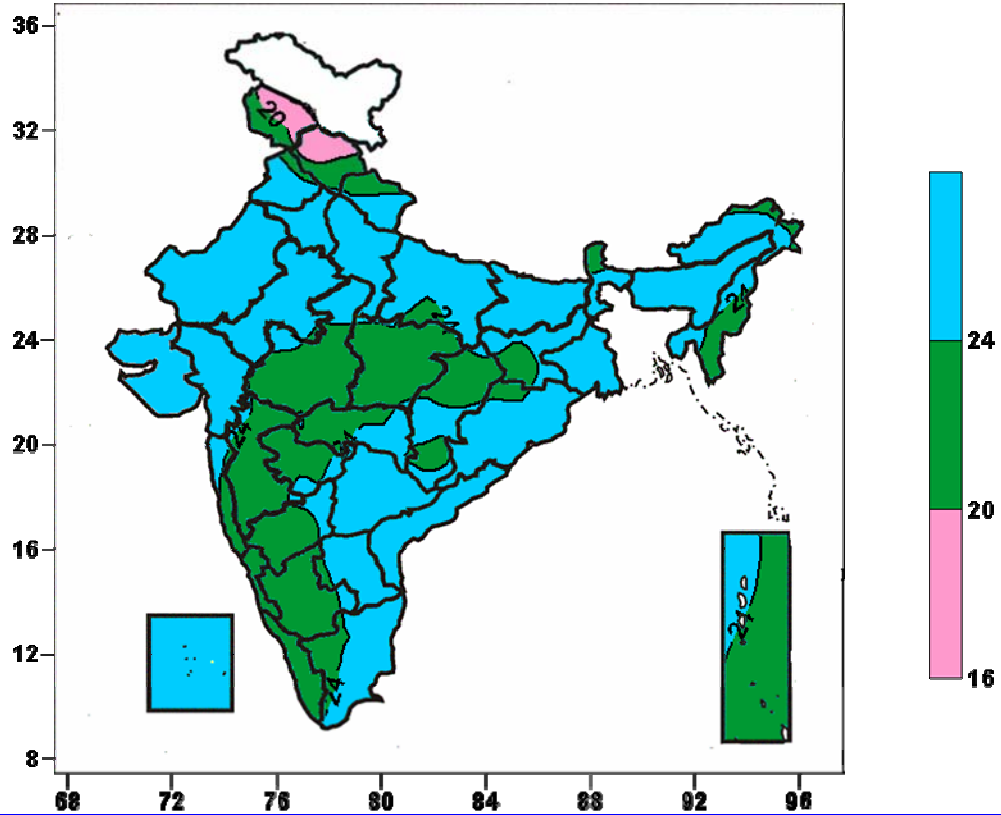
Contour maps for the week ending 9th July, 2008



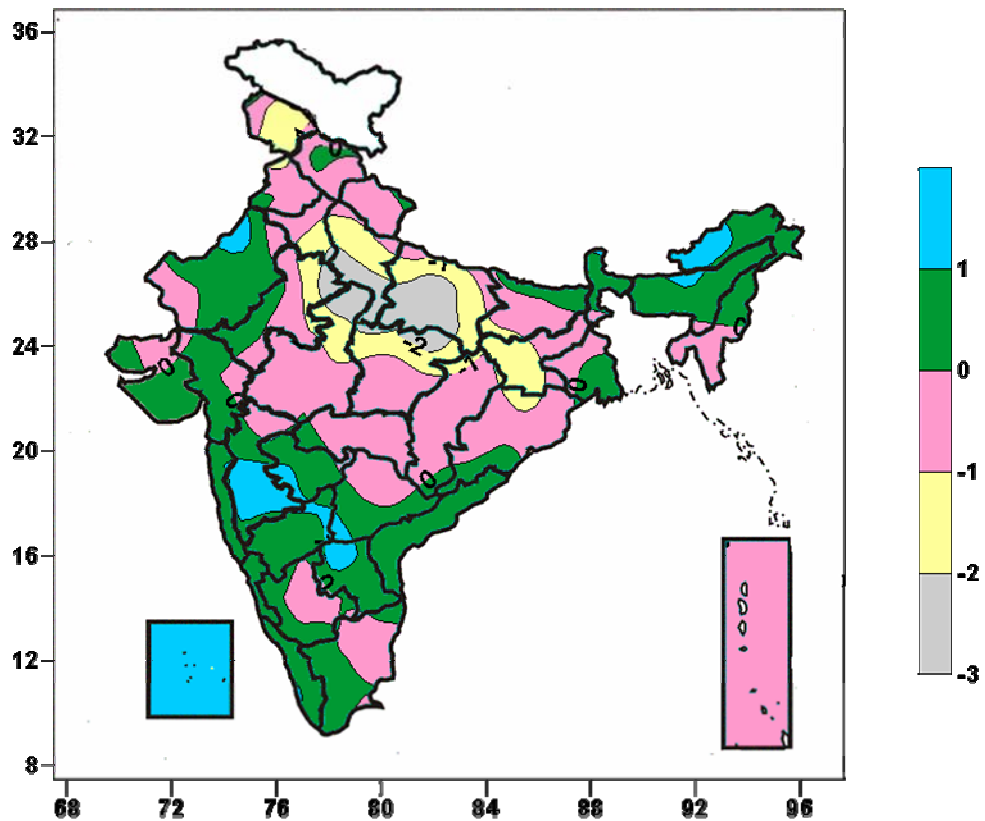
Maximum Temperature (°C) Anomaly In India for the week ending 9.7.08



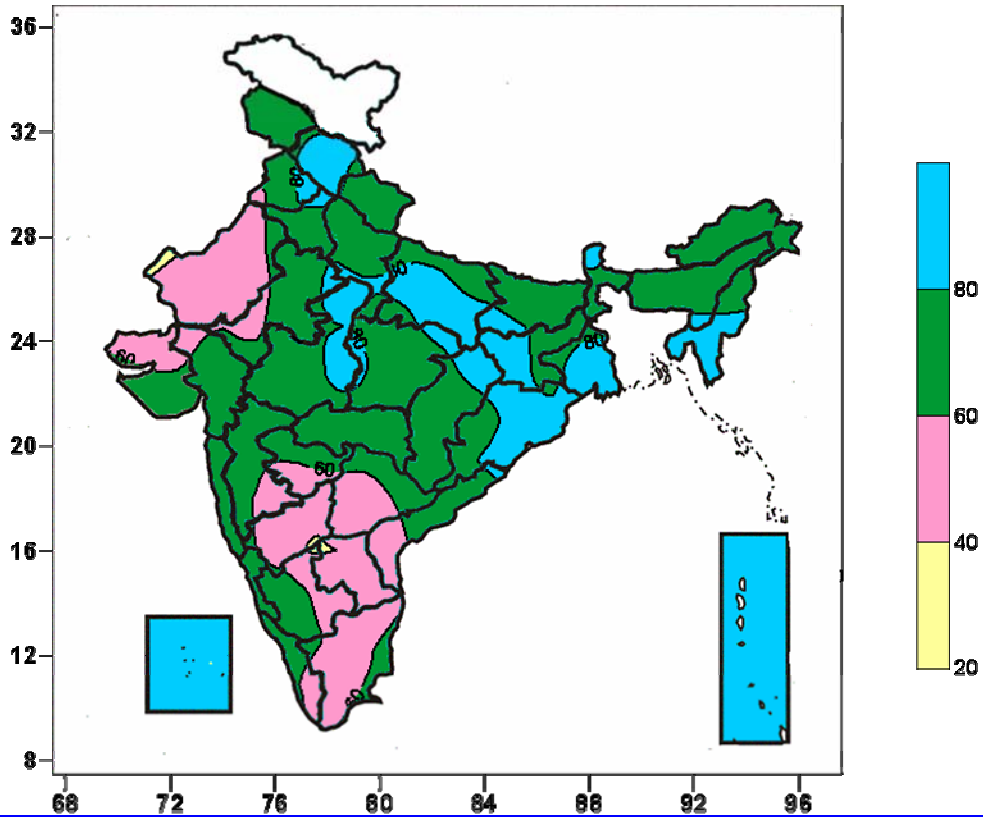
Actual Mean Minimum Temperature (°C) In India for the week ending 9.7.08



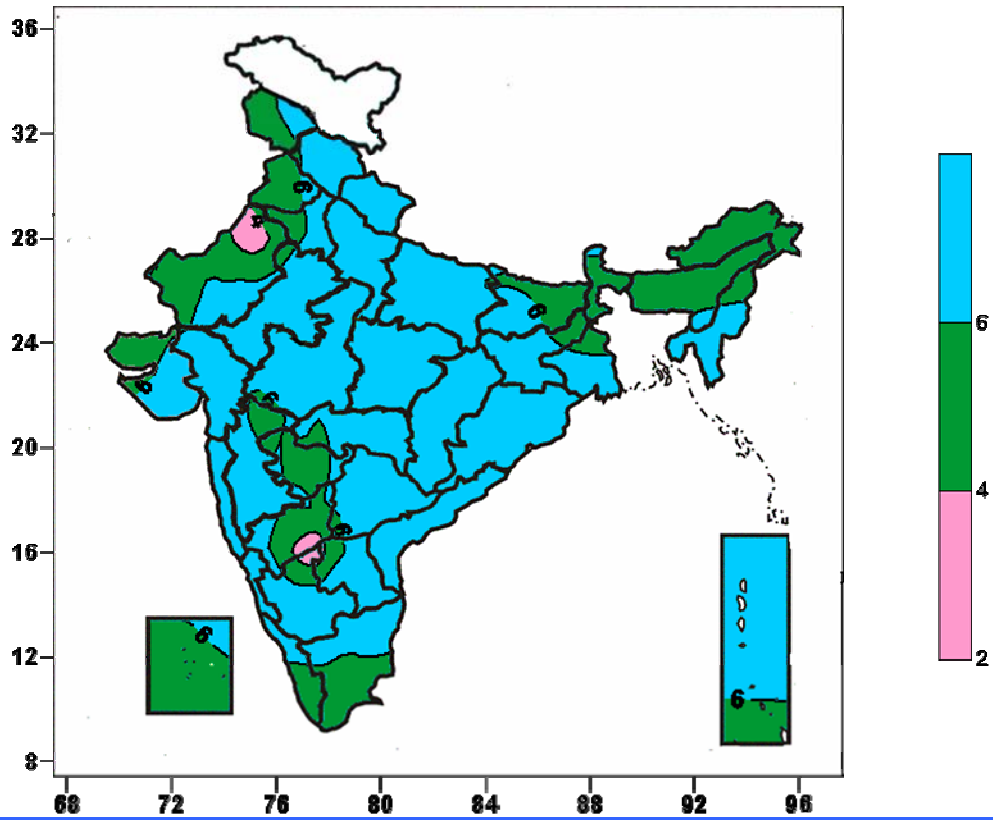
Minimum Temperature ($^{\circ}\text{C}$) Anomaly In India for the week ending 9.7.08



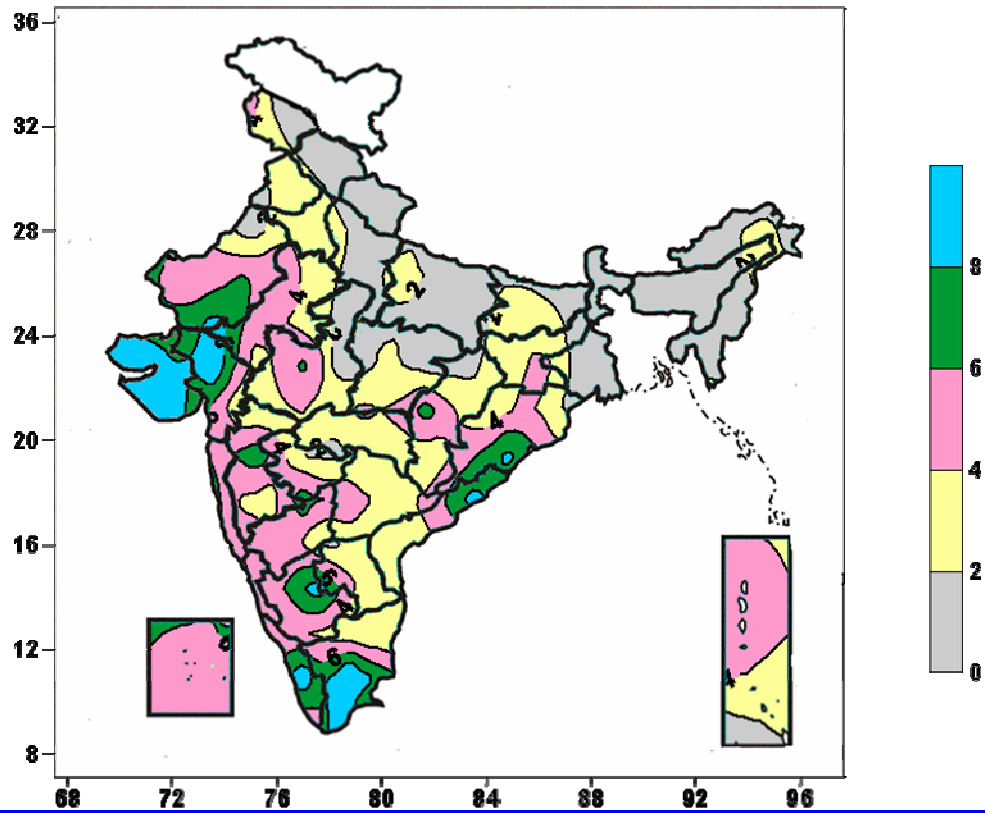
Relative Humidity (%) over India for the week ending 9.7.08



Cloud amount (okta) over India for the week ending 9.7.08



Wind speed (knots) over India for the week ending 9.7.08



Desert Locust Forecasting



Rainfall (mm)

Station Name	03/07/08	04/07/08	05/07/08	06/07/08	07/07/08	08/07/08	09/07/08
Amritsar	00.0	11.2	08.8	14.8	00.4	00.0	00.0
Barmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
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	01.6	00.0	00.0	00.0	02.8	40.0
Deesa	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Churu	00.0	00.0	00.0	00.0	03.7	06.3	00.0

Temperature (° C)

Station Name	03/07/08	04/07/08	05/07/08	06/07/08	07/07/08	08/07/08	09/07/08
Amritsar	32.0	27.5	30.0	27.5	30.5	30.0	30.0
Barmer	33.5	32.0	31.0	32.0	32.5	32.0	33.0
Sriganganagar	36.5	37.0	36.0	35.0	34.0	35.0	33.5
Jaisalmer	33.0	31.5	31.5	32.0	32.5	32.5	33.0
Kota	31.5	32.0	32.0	31.0	31.5	26.0	28.5
Deesa	30.5	30.5	29.5	29.5	29.0	28.0	29.5
Churu	35.0	36.0	34.5	33.5	30.5	31.0	29.5

Wind

Station Name	03/07/08		04/07/08		05/07/08		06/07/08		07/07/08		08/07/08		09/07/08	
	Dir.	Speed	Dir.	speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed
Amritsar	ESE	03	-	-	-	-	-	-	-	-	SE	04	ESE	03
Barmer	SW	02	-	-	SSW	17	SSW	20	SW	16	-	-	WSW	16
Sriganganagar	SW	15	WSW	23	WSW	23	-	-	SSW	13	-	-	SSE	04

aisalmer	SW	22	-	-	-	-	-	-	SSW	15	SSW	15	SW	19
ota	WNW	13	WSW	16	WNW	15	WNW	12	WNW	20	WNW	23	NNW	13
eesa	-	-	SW	17	-	-	-	-	-	-	WSW	15	-	-
huru	WSW	21	WSW	17	WSW	19	-	-	SW	07	ENE	14	E	04

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	Fodder Sorghum
Vegetative / flowering / fruiting/ harvesting	Land preparation/ sowing	Land preparation and transplanting	Land preparation and sowing	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	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	Kharif rice			
Vegetative	Land preparation and sowing/transplanting			

Uttarakhand

Mango/Litchi	Sugarcane	Kharif crops(Rice, maize, groundnut and vegetables)	Apple	

Fruiting/picking	Vegetative	Land preparation and sowing	Vegetative	
------------------	------------	-----------------------------	------------	--

Assam

Regular Ahu rice	Maize	Horticultural plants	Sugarcane	Summer vegetables
(B/T)Tillering/panicle initiation/flowering	Cob formation/maturity/harvesting	Planting	Vegetative	Vegetative / flowering /fruiting/harvesting
Early Ahu rice	Jute	Arhar	Early sown Arhar	Sali Rice
Grain formation/grain maturity	Olitorious –Vegetative Capsularis-Maturity/harvesting	Early vegetative/vegetative	Germination/early vegetative	Land preparation/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/fruiting	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	Ginger	
Fruiting/Harvesting	Seedling/early vegetative	Capsule Development / maturity	Vegetative	

West Bengal

Sugarcane	Jute	Sesamum	Groundnut	Coconut
Vegetative	Vegetative	Pod formation/seed formation/early maturity	Seed formation/early maturity	Planting
Vegetables	Aus Rice	Aman rice	Groundnut, Pigeonpea and Soybean	
Land preparation and sowing/nursery	Tillering	Land preparation and sowing/nursery sowing/transplanting	Land preparation/ Sowing	

Chhatisgarh

Sugarcane	Sesame	Kharif Rice	Vegetables	Green gram
Autumn sugarcane – Vegetative	Pod formation / seed formation/ early maturity	Sowing/transplanting 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/transplanting

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/germination- 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	Kharif crops	Early kharif Crops		
Tillering	Sowing	Early vegetative		

Kerala

Virippu- rice	Rubber	Coconut	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
