

Summary of Agromet Advisory Services for different States of the country Issued by

Agricultural Meteorology Division, India Meteorological Department, Pune, India

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The extended version of the bulletin is also available at http://imdagrimet.org
Agromet Advisory

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

Punjab

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

Advisories

- As rain/thundershowers are likely at many places over the State, postpone irrigation to the standing crops.
- Undertake transplanting of paddy by utilising the realized and expected rainfall. If seedling in nursery shows yellowing of leaf tips, spray with recommended pesticides after current spells of rainfall.
- 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.
- Continue sowing of radish.
- Continue land preparation and sowing of cotton.
- Undertake spraying, intercultural operations and application of fertilizers after current spells of rain.

Haryana

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

Advisories

- As there was sufficient rainfall during last week in the State except in Faridabad, Fatehabad, Hissar, Jhajjhar, Kurushetra, Panchkula, Panipat, Rohtak and Mahendragarh district and rain/thundershowers are likely at a few places over the State for next three days, postpone irrigation to sugarcane, oilseeds, pulses and horticultural crops. Apply irrigation in the above mentioned districts as there was no sufficient rainfall during last week.
- Monitor the sugarcane crop for thrips and pyrilla in Eastern zone & if exceeds economic threshold level, spray 350 ml Endosulfan 50 EC in 600 liter of water/acre on a non rainy day.
- 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.
- Apply second dose of nitrogen on a non rainy day to the rice nursery sown during the middle of May to get seedling ready for transplanting.

Rajasthan

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

- As there was no significant rainfall during last week except in Alwar, Bharatpur, Dausa, Dholpur, Jaipur, Karauli and Sikar and rain/thundershowers are likely at a few places over East Rajasthan and at isolated places over West Rajasthan during next three days, apply irrigation to vegetable crops. As there was excess rainfall in the above districts during last week, postpone irrigation to the crops.
- Continue land preparation and sowing of groundnut in and around Jaipur, Ajmer, Dausa and Tonk. Apply 250 kg per hectare gypsum at the time of last ploughing and 15 kg nitrogen and 60 kg phosphate at the time of last sowing. Apply 30 kg potash per hectare in potash deficient areas.
- Continue land preparation and planting nursery of *kharif* onion in and around Jaipur, Ajmer, Dausa and Tonk. N-53 and Agrifound dark red are the improved varieties of *kharif* onion.
- Bark eating caterpillar may attack Mango, Ber and Aonla. This insect eats bark of these trees & makes tunnels in them. To control the insect spray Endosulfan @ 1.5 ml per litre of water. Application of chemicals may be continued on a non rainy day in East Rajasthan.
- Complete land preparation and sowing of cotton in and around Jaipur, Ajmer, Dausa and Tonk. Select among RG-8 (170-180 days, Desi), Bikaneri Nerma (190-200 days, American) and RST-9 (190-200 days, American).
- Monitor bhindi for mosaic. To control, spray Malathion @ 1 ml per litre water to control the vector (white fly). Application of chemicals may be continued on a non rainy day in East Rajasthan.
- Undertake ploughing and arrange for inputs for taking up sowing of *kharif* pearl millet, sorghum, maize and cluster beans in Jaipur, Ajmer, Dausa and Tonk and sowing of til, moong bean, moth bean and cowpea in Barmer, Churu, Jalore, Jodhpur and Pali districts as the monsoon is fast approaching over the state.

Uttar Pradesh

• Rain/thundershowers are likely at many places over West U.P. and at a few places over East U.P. during next three days.

Advisories

- As there was no significant rain during last week in East U.P in Chamoli, Champawat, Garhwal Tehri and Rudraprayaha districts and rain/thundershowers are likely at a few places during the next three days, apply irrigation to vegetable, sugarcane, summer pulses and sunflower crops. Postpone irrigation in the remaining districts in East U.P. as sufficient rainfall occurred during last week. As rain/thundershowers are likely at many places over West U.P. during next three days, Postpone irrigation to the crops.
- Prepare field and undertake nursery sowing of *Kharif* rice with the advanced monsoon rain.
- Harvest the matured vegetables. To control wet rotten disease in onion spray the solution of Carbendazim 0.1%.
- To control internal rotten disease in mango, spray the solution of 5-6 gm Borax/litre of water. Cut the mango hopper affected branch 30-45 cm in length. To prevent mango fruits from falling, spray the solution of Napthalene Acetic Acid @ 15 p.p.m or 4 ml planofix/9 litre of water.
- Weeding, hoeing, intercultural operations and application of fertilizers may be done in summer pulse, sugarcane and sunflower and other crops on non rainy day in East U.P. and after current spells of rain in West U.P.

Himachal Pradesh

• Rain/thunder showers are likely at many places over the State.

Advisories

 As there was excess rainfall in most of the districts of the State during last week and rain / thundershower is likely at many places over the State for next three days, postpone irrigation and intercultural operation to the crops.

- 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.
- Complete the nursery sowing of rice if not done till date. Before sowing the nursery, 3.7 kg of seeds should be soaked in 25 litres of water having 2.5 g common salt. Discard the floated seeds and wash rest of the seeds properly, dry in shade and sow after treatment with Bavistin @ 2.5 g / kg of seeds. In seed bed of size 10 cm high of 8x1.25 m dimension apply 20-30 kg FYM, 65 g urea and 150 g super phosphate per bed and mix it thoroughly in the upper 5 cm layer of the bed. Sow 400 g good quality treated seeds in each bed, in rows, 10 cm apart. Four such beds are sufficient for one Bigha.
- Due to high humidity, premature leaf fall may occur in apple and there is more chance of attack of mite on the apple crop. Also due to continuous rainfall and cloudy weather, the average temperature is low and therefore growth of the fruit slows. Farmers are advised to spay the crop at 15-20 days interval instead of 25-30 days. Undertake spraying after current spells of rain.
- Continue preparation of land for sowing of maize by ploughing and mixing biological manures properly. Undertake sowing with the help of recent rain. The crops should be sown between 15th to 30th June in low hills.

Uttarakhand

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

Advisories

- As rain/thundershowers are likely at a many places over the State for the next three days, postpone irrigation to sugarcane, vegetable crops and orchard trees.
- Undertake intercultural operations in orchards and sugarcane after current spells of rain to keep the field weed free.
- Continue picking mango and litchi depending upon market demand.
- Monitor mango trees for powdery mildew and litchi for mite incidences. Undertake need based plant protection measures after current spells of rain.
- Continue land preparation and sowing of *kharif* rice, groundnut, maize, amaranthus and vegetables.

Jammu & Kashmir

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

- As rain/thundershower is likely only at a few 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 on a non rainy day.
- Preparation of seed beds for early raising of vegetable seedlings such as capsicum, chilies, brinjal, paprika etc. and filling of poly bags for sowing of cucurbits under polyhouse conditions may be continued in Kashmir division. Also undertake sowing of spinach, methi and coriander and planting of garlic in Kashmir division.
- Continue sowing of maize and moong. Also continue transplanting of rice in the main field in Kashmir division.
- Rouge out virus affected plants from brinjal, tomato, chillies, cauliflower and cabbage crop in Jammu division.
- Due to the presence of sufficient moisture in the soil and further the chances of rainfall occurrence, 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.

• Undertake sowing of maize (var GS-2, Mansard, Trikuta, C-5 and C-8) with seed rate 20-30 kg/ha in irrigated areas in Jammu division, before sowing treat the seed with Thiram @ 0.3% or Carbedazim @ 0.2%.

Delhi

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

Advisories

- As there was excess rain during last week and rain/thundershowers are likely at a few places over the State for next 3 days, postpone irrigation to the crops.
- Arrange for draining out of excess water from the fields of already transplanted cauliflower. The farmers who could not transplant early cauliflower seedlings till date, postpone transplanting and wait for optimum condition.
- 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 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.
- Undertake nursery sowing of tomato and brinjal on raised bed to avoid water stagnation.
- Prepare land and sow maize and arhar utilizing monsoon rain. Sow seeds if sufficient moisture is available in soil for germination. 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 many places the state.

Advisories

- Postpone irrigation, application of fertilizers and pesticides and intercultural operations to plantation crops viz., coconut, arecanut, rubber and banana in the state as rain/thundershowers are likely at many places for the next three days. Arrange for drainage facilities as isolated heavy rainfall is likely during next 48 hours.
- Weather conditions are conducive for mild incidences of leaf roller and stem borer in early transplanted rice in Southern zone. Monitor the crop for the pests and use *Trichogramma* cards @ 2/acre after spells of rain
- Monitor pepper for *Phytophthora* wilt in Central zone. Spray 1% Bordeaux mixture or *Trichoderma viride* after spells of rain to control the disease.
- Attack of mahali disease is reported in arecanut. Apply 1% Bordeaux mixture after spells of rain to control the disease.
- Continue land preparation and nursery preparation of pepper. Continue land preparation and transplanting of *virippu* rice.
- Planting of coconut seedlings can be done in south zone. Planting may be done in the pits of dimension 1m x 1m x 1m at spacing of 7.6 x 7.6 m (approximately 70 palms per acre).
 Select quality seedlings with at least 10 12cm collar girth and 6 8 leaves. Also undertake intercropping in grown up coconut garden. Pineapple, banana, tapioca and black pepper are ideal for planting as intercrops in coconut.

Tamilnadu

• Isolated rain/thunder showers are likely over the state.

- Apply irrigation to groundnut, sugarcane and pulse crops as there was no significant rainfall during last week and rain/thundershowers likely at isolated places over State.
- Monitor sugarcane for shoot borer and if the pest population crosses ETL, undertake spraying of Endosulfan 35 EC or Monocrotophos 40 EC @ 1.5 litres/ha. Release parasite @ 1 cc per time for stem borers after 15 days of spraying. Release parasite @ 1 cc per time for the control of stem borers.
- Magnesium deficiency is noticed in cotton in and around Kovilpatty. For alleviating this symptom spraying 5 % magnesium sulphate, 1 % urea and 0.1 % zinc sulphate on 80 days after sowing is recommended.
- For preventing boll shedding in cotton spraying Napthalene Acetic Acid (NAA) 40 ppm on 60 and 90 days after sowing is recommended. Nipping the terminal bud between 75 to 80 days after sowing is recommended for preventing the vegetative growth in cotton.
- Prevailing dry climate may induce viral diseases in *summer irrigated* vegetables. The vectors like sucking pests may spread rapidly in this dry climate. Hence spraying of Dimethoate @ 500 ml/ha is recommended for controlling these vectors.
- Continue harvesting matured pulse and early and mid season sugarcane crops.
- 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.
- 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.

Karnataka

- Rainfall occured at most places on 16th & 18th and at many places on 17th over Coastal Karnataka; at isolated places on all the days over North Interior Karnataka; at few places on all the days over South Interior Karnataka.
- Rain/thundershowers are likely at many places over Coastal Karnataka and few places over South Interior Karnataka and isolated places over North Interior Karnataka.

- 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 few/ isolated places for the
 next three day. Arrange for drainage facilities in coastal Karnataka to avoid water
 stagnation.
- Undertake intercultural operations and propping in sugarcane to prevent the crop from lodging. Monitor the crop for white woolly aphids and release predators like *Dipha* sp, adopt wider spacing, inter-cropping with soyabean and pulses of short duration as plant protection measures against wooly aphids. Plant protection measures and intercultural operations may be undertaken after spells of rain in Coastal Karnataka and on a non rainy day over South Interior Karnataka.
- Complete harvesting matured crops of rice and sunflower on bright sunny days.
- Continue land preparation and sowing of *kharif* crops like green gram, black gram and jowar by utilizing the monsoon showers.
- Farmers in Mysore are advised to undertake sowing of following crops under rainfed situation. Jowar-CHS-5, Jowar + Redgram (2:1), Groundnut+ Red gram (4:1 or 8:2) by using seed drill.

- Monitor vegetable crops for sucking pests and powdery mildew in Bidar. To control sucking
 pests, spray 1.7 ml Dimethoate or 1.0 ml Oxydemitonmethyl dissolved in one liter of water.
 To control Powdery mildew disease, spray the crop with 1.0 g Carbendazime dissolved in
 one liter of water.
- Farmers in Dharwad are advised to undertake sowing of maize and transplanting of rice and also nursery sowing of tomato, brinjal, onion and chillies by utilizing the monsoon showers

Andhra Pradesh

• Isolated rain/thundershowers are likely over the State.

Advisories

- As there was no significant rainfall in the state except in East Godhavari, Krishna and Khammam districts during last week and rain/thundershowers are at isolated places only over the rest State for the next three days, apply irrigation to sugarcane and chillies. Postpone irrigation in the above districts as there was excess rainfall during last week.
- The incidence of rd mite and early shoot borer is noticed on sugarcane. To control red mite spray Dicofol @ 3 ml per litre of water. To control early shoot borer, spray Endosulfon @ 2ml per litre of water.
- Prevailing weather is congenial for mild incidence of bacterial spot in Pomegranate in and around Hyderabad. Spray Agrimycin @ 200 mg + Copper-Oxy-Chloride @ 3 g per litre of water.
- Continue land preparation and sowing of *kharif* crops by utilizing the monsoon showers.

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

Assam

- Light to moderate rain occurred at many places on 18th, at few places on 17th and at isolated places on 16th with rather heavy to heavy falls on 17th & 18th over the state.
- Rain/thundershowers are likely at many places over the region.

- Flood occurred in some parts of Assam during last week. Farmers are advised to arrange for draining out excess water from the fields.
- As rain / thundershowers are likely at many places with isolated heavy rainfall during next 48 hours over the State, postpone irrigation and intercultural operation to the crops. Provide adequate drainage facilities to avoid waterlogging.
- Maintain 3-5 cm of water in early *ahu* rice and regular *ahu* rice field.
- As maize crop is very susceptible to water logging, provision of surface drainage should be made in the field.
- Provide mechanical support to the sugarcane crops to prevent lodging.
- Infestation of pest and disease such as fruit fly insect and powdery mildew disease is reported in summer vegetables in some localities.
- For control of fruit fly in summer vegetables, malathion 50 EC @ 2.5 ml per litre of water should be applied. Also for control of disease such as powdery mildew apply bavistin @ 2.5 ml / litre of water or Dithane Z-78 or Captaf @ 2 g / litre of water.
- 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-lopper and stem weevil in jute. To control these pests, Fenitrothion 50 EC @ 1ml per litre of water or Endosulfan 35 EC @2ml per litre of water should be sprayed.
- There is mild chance of attack of stem borer in maize due to favourable weather condition. If the pest population crosses economic threshold level, spray fenitrothion 50 EC @ 2 ml / litre of water.
- Undertake intercultural operations and application of fertilizers and pesticides after current spells of rain.
- Prepare land and continue transplanting of transplanted regular *ahu* rice. 7 –10 days before uprooting of the *ahu* rice seedlings from the nursery, apply Carbofuran @ 3 g / sq. m. area in the seedbed to protect the seedlings from stem borer, gall midge, leaf folder etc. in the main field. Alternatively root-dip treatment may also be done. For this the uprooted seedlings are to be washed and root portion of the seedling is dipped in 0.02% solution of Chloropyrophos (1 ml in 1 litre of water) along with 1% of urea for three hours.
- This is the time for land preparation and sowing of arhar. Prepare land by 3-4 ploughing. Sow seeds of variety T-21 @ 2 Kg seeds per bigha (15 kg per hectare) maintaining the spacing of 75 cm between rows and 30 cm between plants. Fertilizer @ 5 kg urea, 35 kg SSP per bigha is to be applied. Preparation of land and application of fertilizer may be undertaken after current spells of rain.

Arunachal Pradesh

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

Advisories

- As rain / thundershowers are likely at many places with isolated heavy rainfall during next 48 hours over the state, postpone irrigation to the standing crops. Provide adequate drainage facilities to avoid waterlogging.
- Undertake intercultural operations, application of fertilizers and pesticides in ginger, summer vegetable crops, jhum rice and millets after current spells of rain.

Bihar

• Rain/thundershowers are likely at many places over the State during next 48 hours and decrease thereafter.

Advisories

- As rain/thundershowers likely at many **places** over the State during next 48 hrs and decrease thereafter, postpone irrigation to the crops.
- Prepare field and undertake nursery sowing of *Kharif* rice.
- There is mild chance of attack of red spider mite in vegetables. If attack crosses economic threshold level, for controlling the red spider mite spray the crop with sulfex @ 3kg/ha or share @ 3 kg/ha in 700 litre of water.
- There is mild chance of attack of mealy bug and anthracnose in fruits. If attack crosses economic threshold level, spray the crop with Endosulfan @ 1.5 ml + Chlorthalonil @ 2g + Planofix @ 1 ml per litre of water.
- Monitor the sugarcane crop for shoot borer incidence. If attack crosses economic threshold level, apply pesticides after current spells of rain.
- Continue harvesting matured crops of maize, and moong on bright sunny days.
- Undertake intercultural operations, spraying, application of fertilisers on a non rainy day

Jharkhand

• Rain/thundershowers are likely at many places over the State during next 48 hours and decrease thereafter.

Advisories

• As rain/thundershowers are likely at many places over the State during next 48 hours and decrease thereafter, postpone irrigation to vegetables.

- Undertake land preparation and sowing of *kharif* crops like rice, groundnut, arhar, mung and maize.
- Undertake intercultural operations, spraying and application of fertilisers after current spells
 of rain

Sikkim

• Rain/thundershowers are likely at many places over theState during next 48 hrs and decrease thereafter.

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. Arrange for drainage
 facilities as isolated heavy rainfall is likely during next 48 hours.
- 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, orange and maize on bright sunny days.
- Continue land preparation and sowing of pre-treated, healthy & certified seeds of vegetables in appropriate and well prepared nursery beds in the vegetable garden.
- 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

- A depression was formed over North Bay off Bangladesh-West Bengal coast Southwest Monsoon was active over Gangetic West Bengal. Heavy to very Heavy rainfall occurred at an isolated places and rainfall occurred at many places on 16th over Gangetic West Bengal. On 17th Southwest Monsoon been vigorous over Gangetic West Bengal and rainfall occurred at most places and at a few places heavy to very heavy rainfall occurred and on 18th Southwest Monsoon been vigorous over Gangetic West Bengal, at a few places heavy to very heavy with extremely very heavy rain occurred at an isolated places. On 16th rainfall occurred at an isolated places, on 17th at most places, at an isolated places heavy to rather heavy with heavy rain at a few places and on 18th Southwest Monsoon was active over Sub Himalayan West Bengal and Heavy to very Heavy rainfall occurred at an isolated places.
- Rain/thundershowers are likely at many places over the state during next 48 hours and decrease thereafter.

- On account of recent excess rain flood situation has occurred over different districts of South Bengal. The following suggestions may be adopted by the farmers:-
 - 1. If Aus rice has been spoiled due to recent flood, short duration aman rice may be cultivated.
 - 2. Prepare seedbed in high land. If possible, prepare the same jointly.
 - 3. If all seedlings have not been spoiled due to flood, fill up the gaps with seedlings and apply 15 Kg urea per hectre of land. After 7 days spray 50% carbandazim @ 1 gram per litre of water.
- Rain/thundershowers are likely at many places over the state during next 48 hours along
 with isolated heavy rainfall, postpone irrigation, intercultural operation and application of
 fertilizer to the crops. Arrange for draining out excess water from the fields of sugarcane,
 jute and already sown / transplanted aus and aman rice and already sown groundnut, pigeon
 pea and soybean.
- 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 after current spells of rain.

- Prepare land and complete sowing of aus rice. HYVs are IET-826, CR-126-42-1, IR-36, IET-2233, IET-1444 (Rosi), Culture-1 etc. Also complete transplanting of aus rice immediately.
- Land preparation and sowing of broadcasted aman rice may be started. 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.

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

Gujarat

• Rain/thundershowers are likely at a few places over Gujarat State.

Advisories

- As there was no significant rain during last week in Ahmedabad, Baroda, Dahod and Dangs districts and rain/thundershowers are likely only at a few places over Gujarat State during next 3 days, apply irrigation to sugarcane. As the remaining districts received sufficient rain during last week, postpone irrigation to the crops.
- Apply 75 kg Nitrogen / ha as top dressing to sugarcane. Carry out light earthing up at 90 days after planting.
- Prepare land and sow groundnut when sufficient moisture is available in soil. Treat the Seeds with mercuric fungicides like Thiram, Captan etc. before sowing of groundnut.
- Prepare land and sow early pigeon pea varieties like Guj PP-1, 100, 101 at spacing of 120 X
 45 cm by dibbling method when sufficient moisture is available in soil and treat seeds with *Rhizobium* @ 25g / kg seeds.
- Sowing operation of rainfed maize, bajra and pulses should be undertaken only under good soil moisture conditions.

Chhattisgarh

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

- As rain / thundershower is likely at many places with isolated heavy rainfall during next 48 hours over most parts of the State, postpone irrigation to the crops. Arrange for drainage facilities to avoid water stagnation.
- Provide mechanical support to sugarcane to avoid lodging.
- Wherever sufficient rainfall has been received farmers are advised to plough and prepare the fields weed free and undertake sowing of rice if moisture is sufficient for germination. The farmers, who have assured irrigation facilities, are advised to continue sowing of rice to raise nursery so that transplanting can be done timely. 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.
- Prepare nursery for chilli, tomato and brinjal in shadow.
- Weather conditions are favourable for sowing soybean mainly in Kabirdham, Durg, Rajnandgaon and Bilaspur districts. Hence, farmers are advised to prepare the fields and complete the sowing provided that moisture is sufficient for germination. Recommended varieties for this region are JS-335, Indira Soya 9, JS 80-21, JS 93-05.
- Conditions are favourable for sowing of groundnut and black gram in transmahanadi belt of Chhattisgarh. Sowing of these crops should be completed by the end of this month. Farmers are advised for sowing of maize, pigeon pea, green gram, *urad* and groundnut in the up land areas.

Maharashtra

• Rain/thundershowers are likely at many places over Konkan, and at a few places over south Madhya Maharashtra and Vidarbha and at isolated places over rest of the State.

Advisories

- As all the districts in Konkan and Kolhapur, Nandurbar and Satara districts received sufficient rain during last week, postpone irrigation to the crops in these districts. As remaining districts of Madhya Maharashtra, Marathwada and Vidarbha received no significant rain during last week and rain is likely to occur only at isolated or a few places, apply irrigation to sugarcane (pre-seasonal) and sugarcane (suru) in these districts.
- 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 on a non-rainy day. 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 on a non-rainy day to control stem borer.
- Land may be prepared for the sowing of irrigated cotton. Select a variety from LRH-5166, JLH-168 as improved variety & Phule-492, Phule-388, Sankar-6 & 10, PKV-4 & 5 as hybrid variety.
- There is mild chance of attack of aphids, jassids & thrips in cotton. For the control of aphids, jassids & thrips, spray 85% Phosphamidon @ 100 ml or 30 % Dimethoate @ 400 ml / ha in 500 litres of water on a non-rainy day after 2 weeks from germination.
- Prepare seed bed for raising of rice seedlings. Sow seeds at the depth of 1 to 2 cms & at a distance of 7-8 cm between two rows. For rice early maturing varieties like Karjat-184, Ratnagiri-24, Ratna, Pavana and Kundalika and mid late rice varieties Indrayani and Basmati-1 for Western Maharashtra Plain Zone and PKV-Khamang, PKV HMT, Sindewahi-1, 5, 75, 2001, PKV Ganesh, Karjat6 & Sakoli- 6, 8 for Eastern Vidarbha zone may be selected.
- Farmers are advised to complete preparatory tillage with the help of monsoon showers & land may
 be kept ready for sowing of kharif crops. Undertake sowing operation after receiving sufficient
 monsoon rain.
- 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 most places over Madhya Pradesh during next 48 hrs and decrease thereafter.

- As rain/ thundershower is likely at most places during next 48 hours with isolated heavy to very heavy rainfall over the state, postpone irrigation to standing crops. Arrange for drainage facilities to avoid water stagnation due to heavy rainfall.
- Complete harvesting moong and urd crops in and around Jabalpur.
- Undertake intercultural operations, application of fertilizers and pesticides in *summer* cowpea, sunflower and soybean after spells of rain in and around Jabalpur.
- Continue land preparation and sowing of *kharif* crops as southwest monsoon is advanced over the state.
- Farmers in Ujjain, Ratlam, Shajapur, Rajgarh, Neemuch, Indore and Dewas are advised to start land preparation and sowing of maize, jowar and transplanting of vegetables like

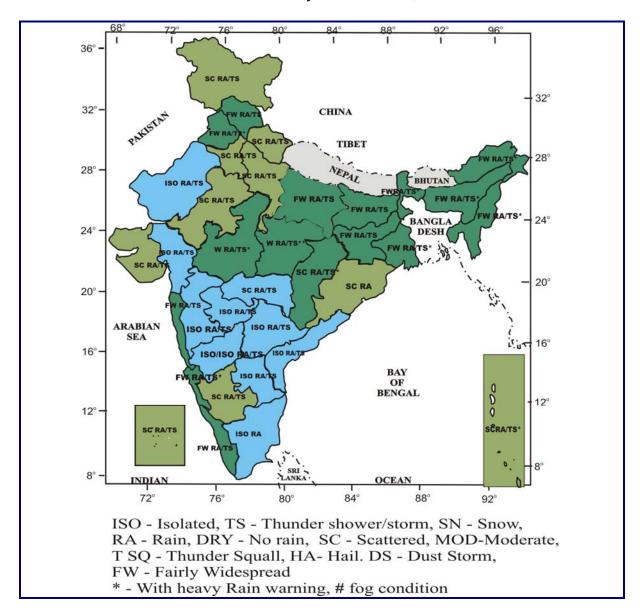
- brinjal, tomato, cauliflower, chillies and onion and sowing of bottle gourd and bitter gourd in the main field by utilizing the monsoon showers.
- Monitor cucurbitaceous crops for red pumpkin beetle and spray Methyl Parathion @ 2 ml/litre of water after spells of rain to control the pest.

Orissa

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

- As there was sufficient rainfall during last week in the State except in Bolangir, Gajapati, Ganjam, Kalahandi, Koraput, Nawapara and Rayagada districts and rain/thunder showers are likely at a few places over the State for next three days, postpone irrigation to vegetables, moong and early sown sugarcane. Apply irrigation in the above districts as there was no significant rainfall during last week.
- Flood occurred at Balasore, Mayurbhanj, Bhadrak and Jajpur districts and provide adequate drainage facilities to avoid waterlogging in already sown fields.
- 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.
- This is proper time for sowing of maize under irrigated condition. Composites like Navjot, Shakti and hybrids like Decan-107, Decan-109 may be collected from the Govt. Sales Centres available at Block level. Use 6 kg seeds/acre. Apply 16 kg N, 16 kg P2O5 and 16 kg K2O per acre as basal. Apply fertilisers on a non rainy day.
- Continue nursery sowing of rice after draining of excess water. If soil profile is wet, go for dry sowing in lowlands.
- Continue land preparation and sowing of baby corn and planting of turmeric, yam and Colocasia

Forecast Valid upto 19th June, 2008



Salient weather features for the week ending 18/06/08

MAIN EVENTS

- Southwest Monsoon advanced into Delhi on 15th June 2008 against the normal date of 29th June. It was the earliest onset over Delhi as per recorded history of India Meteorological Department.
- A depression formed over north Bay of Bengal on 16th June and moved northwestwards across Bangladesh, Gangetic West Bengal and Jharkhand, causing very intense rainfall over Gangetic West Bengal, north Orissa and Jharkhand and hence flood over these regions.

MONSOON WATCH

- Southwest Monsoon further advanced into remaining parts of Maharashtra and some parts of Madhya Pradesh and East Uttar Pradesh on 12th, into some more parts of Arabian Sea, most parts of Gujarat, some parts of East Rajasthan, some more parts of Madhya Pradesh and East Uttar Pradesh, entire Uttarakhand, Himachal Pradesh and Jammu & Kashmir and some parts of Haryana and Punjab on 13th, into most parts of Arabian Sea, remaining parts of Gujarat, Madhya Pradesh, Uttar Pradesh and Punjab, some more parts of Rajasthan & Haryana and entire Delhi on 15th and into remaining parts of Haryana and some parts of Rajasthan on 16th June
- The northern limit of monsoon as on 16th June 2008 passed through 25°N /60°E, 25°N /65°E, Mount Abu, Jaipur, Churu and Sri Ganganagar.

METEOROLOGICAL ANALYSIS

- A low pressure area formed over north Bay of Bengal on 15th morning. It concentrated into a depression and lay centred at 0830 hrs. IST of 16th June over north Bay of Bengal off Bangladesh coast near Lat 21.5°N and Long 90.0°E, about 220 km. southeast of Kolkata. It moved in a northwesterly direction and crossed Bangladesh coast near 89.5°E on 16th evening between 1630 & 1730 hrs. IST. Continuing its northwesterly movement, it lay centered at 0830 hrs. IST of 17th over Gangetic West Bengal close to Krishna Nagar. It lay centered at 0830 hrs. IST of 18th over Jharkhand, about 50 km southwest of Dumka. It weakened into a well marked low pressure area over Jharkhand at 1430 hrs IST of the same day.
- Last week's well marked low pressure area over northwest Arabian Sea lay as a low pressure area over the same region on 12th June and became less marked on 13th
- An off shore trough ran from Konkan coast to Kerala coast during 12th -17th and from Karnataka coast to Kerala coast on 18th
- The seasonal trough at sea level passed through north Rajasthan, south Uttar Pradesh, south Bihar, Jharkhand, Gangetic West Bengal and thence southeastwards to eastcentral Bay of Bengal during the week.
- Last week's cyclonic circulation extending upto mid-tropospheric level over northeast Madhya Pradesh and adjoining Chhattisgarh lay over northwest Madhya Pradesh and neighbourhood on 12th, southwest Uttar Pradesh and adjoining Madhya Pradesh on 13th and became less marked on 14th.
- A cyclonic circulation extending upto lower levels lay over north Pakistan and adjoining Rajasthan and Punjab on 14th, over Jammu & Kashmir and adjoining Punjab and Rajasthan on 15th, over north Rajasthan and adjoining Punjab & Haryana on 16th and

over West Uttar Pradesh and neighbourhood on $17^{\rm th}$ and central Uttar Pradesh and neighbourhood on $18^{\rm th}$.

Rainfall

- Southwest monsoon was active/vigorous over Andaman & Nicobar islands during first half and over Orissa & Gangetic West Bengal during second half of the week.
- Widespread/ fairly widespread rainfall occurred over Sub-Himalayan West Bengal & Sikkim, Bihar, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi and East Rajasthan during many days of the week. Southwest monsoon was also active/vigorous over these region during a few days.
- Widespread/ fairly widespread rainfall occurred over Arunachal Pradesh, Assam & Meghalaya during first half and Nagaland, Manipur, Mizoram & Tripura during second half of the week.
- Widespread/ fairly widespread rainfall occurred over Konkan & Goa, Coastal Karnataka and Kerala during the week. Active monsoon conditions prevailed over these regions on one or two days.
- The monsoon activity has been subdued over interior peninsula, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, Kerala and Lakshadweep during the week.

Rainfall During The Week (For the week ending on 18th June, 2008)

• Rainfall was excess/normal in 26 and deficient/scanty in 10 out of 36 meteorological subdivisions (Actual: 62.4 mm, Normal: 36.8 mm and Departure: +70%).

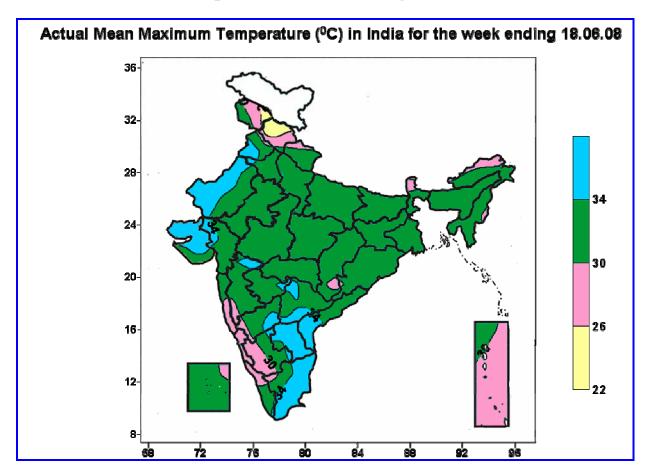
Cumulative Seasonal Rainfall (1st June to 18th June, 2008)

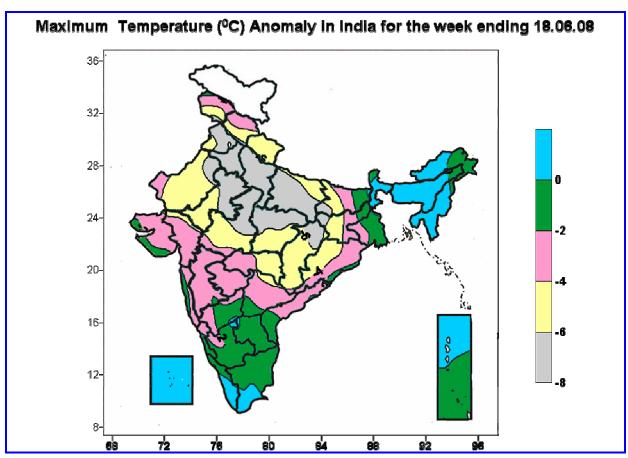
• Rainfall was excess/normal in 32 and deficient/scanty in 4 out of 36 meteorological subdivisions. (Actual: 113.6 mm, Normal: 78.2 mm and Departure: +45%).

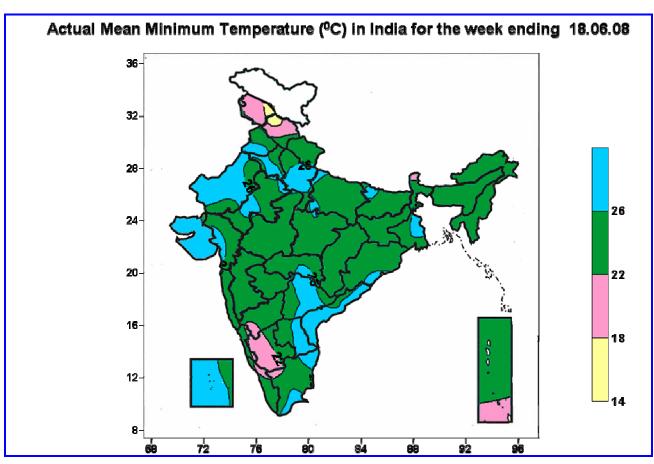
Outlook For The Week Ending On 25th June 2008

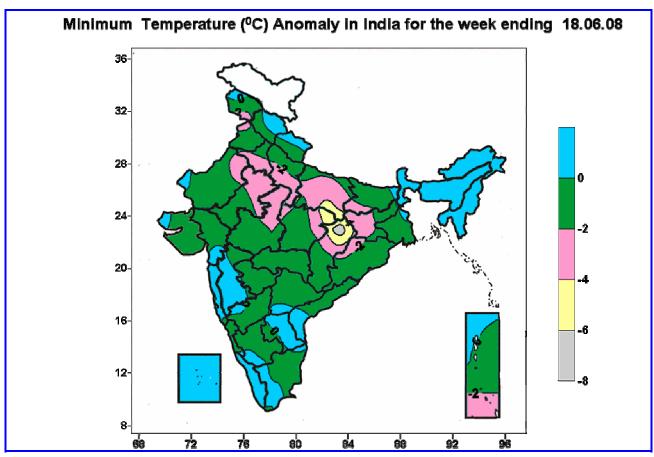
- Fairly widespread rainfall activity with isolated heavy to very heavy falls over West Madhya Pradesh and Gujarat Region during first half of the week.
- Fairly widespread rainfall activity with isolated heavy to very heavy falls likely over northeastern states and west coast.
- Decrease in rainfall activity over northwest India.

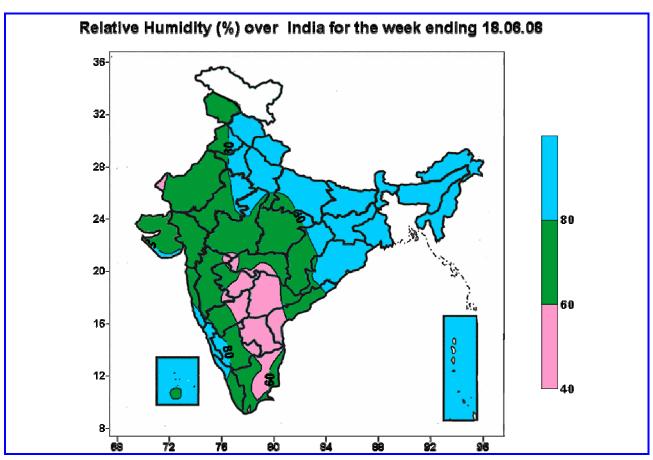
Contour maps for the week ending 18th June, 2008

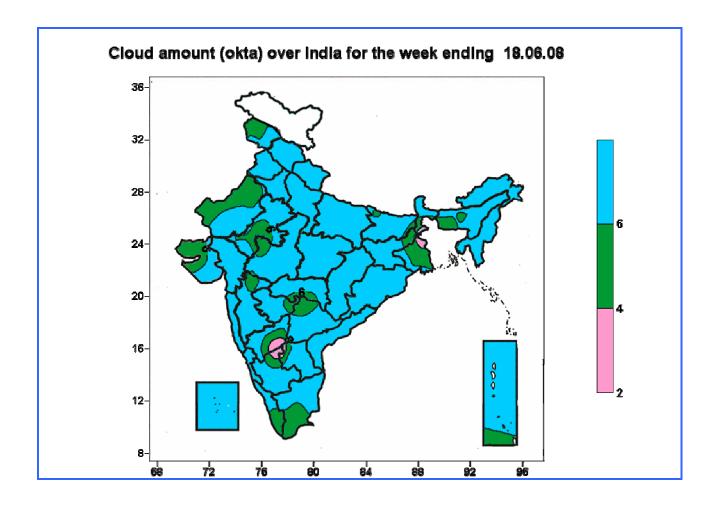


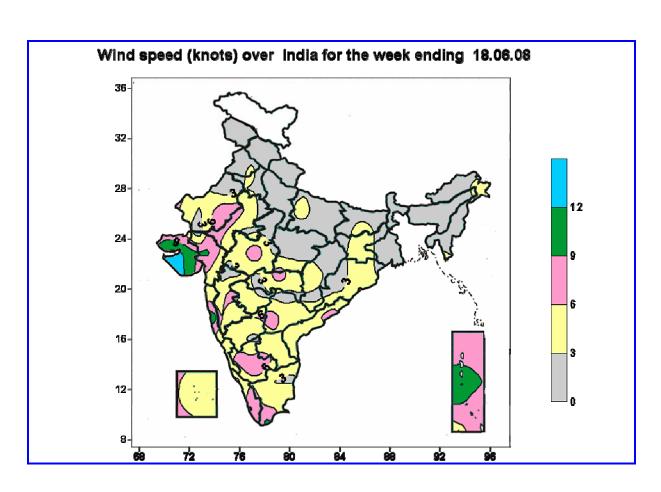














Rainfall (mm)									
Station Name	12/06/08	13/06/08	14/06/08	15/06/08	16/06/08	17/06/08	18/06/08		
Amritsar	0.00	0.00	0.00	22.0	42.2	0.00	0.00		
Barmer	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Sriganganagar	0.00	0.00	08.9	36.0	0.00	0.00	01.9		
Jaisalmer	0.00	06.6	0.00	0.00	0.00	0.00	00.2		
Kota	0.00	0.00	06.4	0.00	0.00	0.00	0.00		
Deesa	0.00	30.0	0.00	0.00	0.00	0.00	01.6		
Churu	0.00	0.00	0.00	0.00	10.4	0.00	00.3		

$Temperature ({}^{o}C)$

Station Name	12/06/08	13/06/08	14/06/08	15/06/08	16/06/08	17/06/08	18/06/08
Amritsar	-	32.1	26.9	24.7	24.1	29.7	-
Barmer	-	32.0	32.4	32.8	32.8	33.0	-
Sriganganagar	-	34.1	34.8	32.5	31.3	32.2	-
Jaisalmer	-	29.6	32.8	33.1	33.1	33.4	-
Kota	-	30.5	31.1	31.3	32.3	29.9	-
Deesa	-	29.1	27.8	29.7	29.8	30.0	-
Churu	-	32.5	35.1	35.4	30.4	32.4	-

Wind														
Station	12/0	6/08	13/0	6/08	14/0	6/08	15/0	6/08	16/06/	08	17/0	6/08	18/0	6/08
Name	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed
Amritsar	-	-	-	-	-	-	-	-	-	-	SSE	05	SE	04
Barmer	-	-	-	-	-	-	-	-	WSW	07	SW	18	-	-
Sriganganagar	-	-	-	-	-	-	-	-	SSW	-05	NW	14	WNW	14
Jaisalmer	-	-	-	-	-	-		-	-	1	WNW	04	-	-
Kota	-	-	-	-	-	-	-	-	-	1	-	-	-	-
Deesa	-	-	-	-	-	-	=	-	-	1	-	-	-	-
Churu	-	-	_	-	-	-	-	-	-	-	NW	20	WNW	18

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

CROP-STATE-STAGE

New Delhi

Vegetables	Arhar	Rice	Maize	
Vegetative / flowering /	Land preparation/	Land preparation and	Land preparation	
fruiting/ harvesting	sowing	nursery sowing	and sowing	
		Haryana		
Autumn sugarcane	Horticultural crops	Sunflower	Summer Pulses	Cotton
Vegetative	Vegetative	Vegetative/flowering	Vegetative	Sowing
Rice				
Nursery sowing				

		Himachal Pradesh		
Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Rice	Apple	Maize
Vegetative / flowering / fruiting / harvesting	Early vegetative / vegetative	Nursery sowing	Fruit development	Land preparation fo sowing
<u> </u>		Jammu & Kashmir	•	
Vegetable crops	Rice	Pulses		
Vegetative	Transplanting	Vegetative		
		Punjab		
Autumn sugarcane	Horticultural crops	Summer pulses	Sunflower	Paddy
Vegetative	Vegetative	Vegetative	Vegetative/flowering	Land preparation fo nursery sowing
Cotton				
Land preparation for nursery sowing				
	1	Rajasthan		
Cotton	Summer Vegetable crops			
Sowing	Vegetative			
		Uttar Pradesh		
Summer Sugarcane	Vegetables	Summer pulses	Sunflower	Mango
Vegetative	Fruiting / harvesting	Vegetative	Vegetative	Fruit setting
Oilseeds	Kharif rice			
Vegetative	Nursery preparation and sowing			
		Uttarakhand		
Mango/Litchi	Sugarcane	Potato	Apple	Kharif crops(Rice maize, groundnut an vegetables)
Fruiting/picking	Vegetative	Tuber maturity	Vegetative	Land preparation an sowing
		Assam		
Regular Ahu rice	Maize	Horticultural plants	Sugarcane	Summer vegetable
Early vegetative / tillering Transplanted-Vegetative	Vegetative/ tasseling / silking	Planting	Vegetative	Vegetative / flowering / fruiting / harvesting
Early Ahu rice	Jute	Arhar		
Tillering	Vegetative	Land preparation for sowing		
		Arunachal Pradesh		
Wet seeded rice	Early sown Wet seeded rice	Jhum Rice	Ginger	Maize, Millet
Early vegetative	Land preparation /transplanting	Vegetative	Rhizome formation	Vegetative / flowering
Summer Vegetables Vegetative/harvesting				
v egetati ve/nai vesting				
vegetative/narvesting				

			Bihar				
Vegetables & fruit crops	Summer Ma	aize	Kharif rice		Sugarcane	Potato	
Vegetative/flowering/fruiting	Maturity		Nursery preparation and sowing	Vege	etative/flowering/ maturity	Tuber formation	
			Jharkhand				
<i>Kharif</i> Paddy	Litchi / Mango	Vegetables (Tomato, Brinjal, Bhendi)					
Nursery bed preparation	Vegetative (tree)	Vegetative / flowering / fruiting / harvesting		; /			
Sikkim							
Orange	Vegetable	es	Large Cardamom		Maize		
Fruiting/Harvesting	Sowing		Capsule Development /	(Grain maturity		

		maturity						
		West Bengal		T				
Sugarcane	Jute	Sesamum	Groundnut	Green Gram				
Vegetative	Seedling / 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					
Dough / early maturity maturity	/ Preparation of land and sowing/transplanting	Land preparation and sowing/nursery sowing	Land preparation/ Sowing					
		Chhatisgarh						
Sugarcane	Sesame	Kharif Rice	Vegetables	Green gram				
Autumn sugarcane – Vegetative Soybean	Pod formation / seed formation/ early maturity Other <i>Kharif crops</i>	Sowing/nursery sowing	Flowering / fruiting / harvesting	Early maturity				
Land preparation for sow	Land preparation for							
	50 WINS	Gujarat						
		9						
Sugarcane	Other Kharif crops	<i>Kharif</i> groundnut						
Vegetative	Land preparation /	Land preparation /						
	sowing	sowing Maharashtra						
	G (G)	Manarashira		D () (M II				
Sugarcane Preseasona (Madhya Maharashtra Marathwada & Vidarbl	(Madnya Manrashtra, ha) Marthwada and Vidarbha)	Summer sunflower	Mango	Potato (Madhya Maharashtra, Marathwada & Vidarbha)				
Elongation / cane development	Active growth / elongation	Harvesting- Eastern Vidarbha	Harvesting	Vegetative				
Irrigated cotton	Summer Rice	Summer bajra	Summer groundnut	Other Kharif crops				
Land preparation and sowing Early sown crops – Germination/early vegetati	Viderbha	Grain maturity / harvesting	Harvesting- Eastern Vidarbha	sowing				
Fruit crops	Kharif Rice	Kharif Groundnut						
Planting	Nursery sowing	Nursery sowing						
		Madhya Pradesh		_				
Sugarcane	Summer Sugarcane	Summer moong						
Grand growth	Vegetative	Harvesting						
		Orissa		1				
Vegetable crops	Kharif Rice	Sugarcane	Moong	Maize				
Flowering / fruiting / harves	ting Sowing	Vegetative	Vegetative	Sowing				
Jute Sowing								
Sowing	I	Andhra Pradesh						
Chillies	Sugarcane							
Vegetative	Vegetative							
		Karnataka						
Summer rice, Sunflower	Annual sugarcane	Early <i>kharif</i> Crops	Rabi Cotton	Kharif crops				
Harvesting	Tillering	Early vegetative	End picking	Sowing				
	Kerala							
Virippu- rice	Rubber	Coconut Land preparation for ne	Banana	Pepper				
sowing	sowing Planting		Planting	Land preparation for new planting				
		Tamil Nadu						
Rice (Kuruvai)	Sugarcane (Early, Mid season)	Maize/Jowar/Bajra/Sar	gram/Red gram	Special season sugarcane				
Sowing	Cane development / maturity	Grain maturity	Pod maturity	Grand growth				
Sorghum	Cotton							
Sowing	Boll maturity/picking							