



Summary of Agromet Advisory Services for different States of the country

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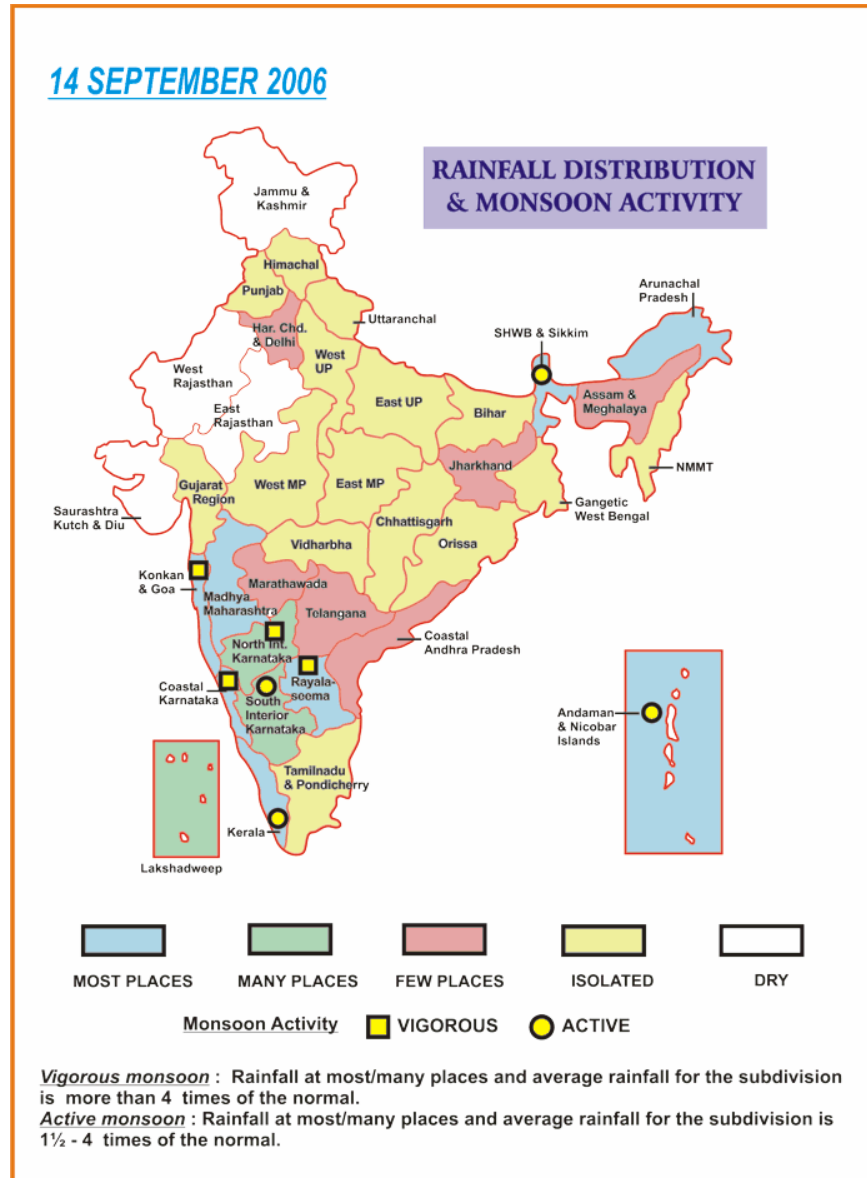
Agricultural Meteorology Division, India Meteorological
Department, Pune, India

Thursday, 14th September, 2006

(For the period 14th September to 18th September, 2006)

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

Monsoon Activity



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

Punjab & Haryana

Rain/Thundershowers occurred at isolated places on 11th and 12th; weather remained mainly dry on rest of the days in Punjab.

Isolated rain/thundershowers are likely over the State.

Advisories

- In **Punjab** rainfall occurred at isolated places and there was no significant rainfall in **Haryana** during last week and rain/thunder showers likely to occur at isolated places only for the next three days. Under the circumstances, apply required irrigation to **sugarcane, maize, groundnut, kharif pulses and cotton** to bring the soil moisture to its field capacity.
- Incidences of **leaf folder** and **bacterial leaf blight** are reported in **rice** in some pockets of **Punjab**. Prevailing weather conditions are favorable for the further spread of **bacterial leaf blight**. If it crosses economic threshold level, spray Vitavax @ 2 g/litre of water. There is high risk of leaf folder in **Malwa** belt due to high humid conditions. Monitor the incidences of the pest, if the pest population crosses ETL, take adequate plant protection measures. Avoid nitrogen application to prevent further attack of the pests and diseases.
- In view of prevailed high humidity, cloudiness conditions in preceding days **cotton** crop is susceptible to the incidence of **pink bollworm** and **other leaf eating caterpillar** in **Punjab**. Farmers are advised to apply integrated pest management with application of synthetic pyrethroid to check the same, if damage exceeds economic threshold level. Also undertake plant protection measures against **spotted boll worm** by spraying Quinalphos @ 1.5-2 litres/ha in 800 litres of water.
- As high humid and cloudiness conditions are prevailing they may favour infestation and further spread of **sucking pest/ diseases** in standing kharif crops in **Haryana**. Monitor the pests and diseases on crops, adequate chemicals/mechanical measures may be taken to control them.
- Undertake weeding and mulch or soil mulch for better utilisation of soil moisture/ nutrients by the crop.
- Maintain 3-5 cm water level in paddy field.
- Farmers are advised to monitor the locust and carry out antilocust operations i.e. spray of pesticides on standing crops and vegetation to monitor the damage from any possible locust invasion.
- Undertake sowing of berseem by utilizing the residual moisture. Also conserve excess soil moisture to take up sowing of rabi crops.

Rajasthan

Weather remained mainly dry in all the divisions of the State.

Weather may be mainly dry in the State.

Advisories

- There was no significant rainfall in the State except in **Banswara, Dungarpur, Sirohi, Udaipur, Barmer, and Jalore** districts, during last week and mainly dry weather is likely to prevail for the next three days. Under these conditions, apply irrigation to **cotton, pulses, jowar, maize, soybean and groundnut** crops. Apply irrigation depending on soil profile stored moisture in the above districts.
- Incidence of **tikka** disease in **groundnut** is reported in some places. Spray Mancozeb 2g/litre of water to control **tikka** disease in **groundnut**, if damage exceeds economic threshold level.
- Incidence of **spotted bollworm** is reported in **cotton**. For the control of **boll worms** spray the crops with 2.0 litre of Endosulfan or 1 litre of Monocrotophos per hectare at 10 days interval, beginning two weeks after the start of flowering and stopping two weeks before the first picking, if damage exceeds E.T.L.
- Spray Methylparathion / Quinalphos / Endosulphan @2.5 litre/hectare to control **Fatka** disease in **Bajra**, if damage exceeds E.T.L.

Uttar Pradesh

Rain occurred at many places in **Gorakhpur** division on 11th & 12th September and at a few places in **Varanasi, Faizabad, Lucknow** divisions on 11th September and at isolated places in **Varanasi, Faizabad** divisions on 12th September and in **Varanasi** division on 13th September and weather was mainly dry in remaining divisions on 11th, 12th and 13th September.

Isolated rain/thundershowers are likely over the State.

Advisories

- There was no significant rainfall in U.P during last week except **Basti, Deoria, Maharajganj, and Sidharthnagar** districts and rain/thundershowers are likely at isolated places over the State for the next three days. Under the circumstance, apply irrigation to **summer sugarcane, vegetables and mango** crops to bring the soil moisture to field capacity. Apply irrigation depending on soil profile stored moisture in the above mentioned districts.
- Continue weeding and hoeing, along with topdressing of nitrogen in **rice, maize, jowar, bajra, kharif pulses and vegetables and oilseeds**.
- To control **khaira** disease in **rice**, spray the solution of 5 kg Zinc sulphate and 20 kg urea dissolving in 800-1000 litre water per ha and to control **phudka** disease spray the solution of monocrotophos 35EC @ 1 litre / ha dissolving in 800-1000 litres of water.
- To overcome **Anthrakanose** disease in **mango**, spray the solution of copper oxychloride @ 3gm / litre of water and to control **gummosis** disease mix Copper sulphate 250gm, Zinc sulphate 250gm, Borax 125 gm and slaked lime 100 gm in soil as manure and light watering may be done.
- Complete the sowing of **toria**.
- Monitor the crop for **borer pests** and to control **borer** insects in **sugarcane** spray the solution of Endosulphon 35EC @ 1.25 litre / hectare in water if the population exceeds E.T.L.

Himachal Pradesh

Precipitation occurred at isolated places during this week in the State.

Isolated rain/thundershowers likely over the region.

Advisories

- As there was no significant rain during last week and rain / thundershowers are likely at isolated places over the State for next three days, apply irrigation to **maize, moong, potato and early sown vegetable** crops.
- Maintain 5 – 7 cm water in **rice** field.
- Continue land preparation and sowing of **Arcle peas** in the high hills, preparation of nursery of **cauliflower** and **cabbage** in lower hills and transplanting of **cauliflower** and **cabbage** in mid hills.
- If spots are noticed on the leaves of **Simla-mirch** and attack crosses economic threshold level, Ridomil-MZ (0.25%) may be sprayed at an interval of 8 –10 days.
- Weather is conducive for **rice blast** and **rice hispa** attack. If **blast** attack crosses economic threshold level, Blitox 50 (Copper oxychloride) @ 2.25 kg or Bavistin 50 WP @ 750 g or Hinosan @ 750 ml in 750 litre water / ha may be applied. If **rice hispa** attack crosses economic threshold level, metacid 50 EC @ 1 ml per litre of water may be applied. Use sticker Stickwel @ 0.2 g / litre water.

Uttaranchal

Moderate rain was recorded at isolated places from 7th to 10th September and light rain was recorded at isolated places on 11th & 13th September. Sky remained partly to generally cloudy.

Isolated rain / thundershowers are likely over the State.

Advisories

- Light to moderate rain was recorded at isolated places in the state and rain / thunder showers are likely at isolated places for next three days. Under the circumstances, apply irrigation to **mango, apple, sugarcane** and **vegetable** crops in **Garhwal Tehri and Rudraprayag** districts to bring the soil moisture to its field capacity.
- Maintain 5 – 7 cm water in **rice** field.
- Carry out inter cultural operation, application of fertilizer and plant protection measures to **mango, apple, sugarcane, rice, cauliflower and vegetable** crops, wherever necessary.

Jammu & Kashmir

Light to moderate rain / thundershowers occurred few places with very heavy falls at Jammu (C) on 11th September. Light to moderate rain again occurred at isolated places on 12th and 13th September with heavy falls at Jammu (C) on 12th September over J & K State.

Isolated rain/ thundershowers likely over the State.

Advisories

- Keep vigil against **desert locust** to prevent crop damage.
- Light to moderate rain occurred at a few places in Jammu division during last week. Rain / thundershowers are likely to occur at isolated places in J & K state for the next three days. Under the circumstances, apply irrigation to **vegetables, pulses, rice** and **maize** to bring the soil moisture to its field capacity.
- Rogue out **downey mildew** affected **bajra** plants and **smut** affected **maize** plants and destroy completely to avoid further spread.
- Monitor **pulse** crops for **hairy caterpillar** and **jassid** due to prevailing weather conditions. If it crosses economic threshold level, spray Malathion @ 0.05% to control the pest.
- Continue sowing of **carrot, beet root** and **turnip** for seed crop by utilizing the monsoon showers.
- Continue seed bed preparation of **annual flower** crops and planting of **fruit crops** by utilizing the monsoon showers.
- Start sowing of **toria** crop to utilize residual moisture. Before sowing, undertake ploughing followed by planking to conserve moisture.

Delhi

Weather remained mainly dry.

Isolated rain / thundershowers likely over the region.

Advisories

- As there was no significant rainfall during last week and rain / thundershowers are likely at isolated places over the State for next three days, apply irrigation to **early sown kharif vegetable crops, fodder crops, maize** and **bajra**.
- Maintain 5 – 7 cm water level in **rice** field.
- Prepare land and continue transplanting of 4 – 6 weeks old early varieties of **cauliflower** and **cabbage** plants. Also undertake transplanting of **brinjal** and **chilly**.
- Also prepare nursery for **cabbage** varieties like Golden Aker, Pusa Ageti and mid time **cauliflower** varieties like Pusa Synthetic, Pusa Subhra and Pusa Himjyoti.
- Prepare land and perform sowing of Pusa Reshmi variety of **raddish**, Pusa Kesar variety of **carrot** and Pusa Kanchan variety of **turnip**.
- Prepare land and start sowing of **toria**. Select varieties from Type I, Sangam, T.L. – 15 and Ludhiana Composite etc.
- Monitor ergot disease of **bajra** and if noticed, remove the plants and burn them well outside the field.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

Southwest monsoon was vigorous over the State on 12th & 13th September. Rain occurred at most places during the period.

Rain / thundershowers are likely at many places over the State

Advisories

- Rainfall is likely to occur at many places in the State for the next three days. Under the circumstance, postpone irrigation to plantation crops.
- Continue intercultural operations and fertilizer application in arecanut, coconut, pepper, rubber and banana after spells of rain.
- Attack of bunchy top and pseudostem weevil is reported in banana. Eradicate the bunchy top affected plants. Spray Chlorpyrifos @ 2.5 ml/litre of water after spells of rain to control pseudo stem weevil.
- Attack of rhinoceros beetle and red palm weevil insects and bud rot and mahali disease is reported in coconut. Hook out the beetles from the affected palms and fill the leaf axils with sevidol 8 G @ 25 gm and fine sand 200 gm. Use Pheromone trap for controlling red palm weevil. If bud rot attack crosses economic threshold level, spray 1% Bordeaux mixture to control the diseases. Spray blitox @ 4 gm/litre/palm to control mahali disease if attack crosses economic threshold level. Spraying of chemicals may be continued after spells of rain.
- Attack of spindle bug insect and bud rot and fruit rot diseases is reported in areca nut. Monitor the crop continuously for spindle bug and if crosses economic threshold level, spray the crowns with Carbaryl 50% WP @ 20gm/100 litre of water to control the bug. If bud rot and fruit rot diseases attack crosses economic threshold level, spray 1% Bordeaux mixture to control the diseases. Spraying of chemicals may be continued after spells of rain.

Tamilnadu

Rainfall occurred at isolated places over the State on 11th, 12th and 13th September.

Rain/thundershowers likely at many places over the State.

Advisories

- Rain / thundershowers are likely to occur at many places over the State for the next three days. Under the circumstance, postpone irrigation to pulses, early/mid sugarcane and millets.
- Continue intercultural operations, application of fertilizers and pesticides to the standing crops after current spells of rain.
- Aphids and pod borer attack is reported in pulses. Monitor the crop continuously as the weather conditions are favourable for further spread. Spray Malathion @ 0.1% to control the pests after spells of rain.
- Weather conditions are favourable for the attack of red hairy caterpillar in groundnut. Monitor the crop for the pest and collect and destroy egg masses to prevent further spread of the pest.
- Incidence of internode borer has been reported in sugarcane. Monitor the crop continuously as the weather conditions are favourable for further spread. Release *Trichogramma chilonis* @ 5 cc/ha parasite after spells of rain to control the pest. Repeat after 15 days.
- Incidences of mite attack are reported in millets. Monitor the crop continuously as the weather conditions are favourable for further spread. Spray wettable sulphur after spells of rain to control mite.
- Stem borer egg masses and thrips have been reported in rice. Collect and destroy egg masses as a preventive measure. Monitor the crop continuously for the pest as the weather conditions are favourable for further spread. Spray Dimecron @ 0.5 ml/litre of water after spells of rain to control thrips.
- Continue harvesting late season sugarcane.

Karnataka

Monsoon was vigorous on 13th September and weak on 11th & 12th September over Coastal Karnataka. Over North Interior Karnataka, it was active on 13th September & weak on 11th September. Rainfall occurred at a few places on 11th & 12th September over Coastal Karnataka. Over North Interior Karnataka, rainfall occurred at isolated places on 11th & 12th September. Over South Interior Karnataka, rainfall occurred at a few places on 12th September and at isolated places on 11th & 13th September.

Rain / thundershowers are likely at most places over Coastal Karnataka and at many places over Interior Karnataka.

Warning: Isolated heavy to very heavy falls are likely over Coastal Karnataka.

Advisories

- As rain/thundershowers are likely at most places over Coastal Karnataka and at many places over Interior Karnataka, postpone irrigation in **sugarcane, maize, jowar** crops and **groundnut**. Provide drainage in the standing crops in coastal Karnataka.
- Weeding, and intercultural operations may be continued after current spells of rain.

Andhra Pradesh

Rain occurred at a few places over Telangana on 13th September over Rayalseema on 12th & 13th September. Isolated rain occurred over coastal Andhra Pradesh from 7th to 10th, 12th & 13th September and over Telangana on 7th, 8th & 10th September. Weather was mainly dry over Telangana and Rayalseema on 9th September and dry over Coastal Andhra Pradesh and Rayalaseema on 11th September.

Rain / thundershowers are likely to occur at most places over coastal Andhra Pradesh and at many places over Telangana and Rayalaseema.

Warning: Isolated heavy to very heavy falls are likely over Coastal Andhra Pradesh.

Advisories

- Rain/thunder showers likely to occur at most/many places over the State for the next three days. Under the circumstances, postpone irrigation to **maize, groundnut, cotton, chilly** and **tur**.
- Continue intercultural operations, application of fertilizers and pesticides in the standing crops after spells of rain.
- **Stem borer** incidence is noticed in **maize**. Monitor the crop continuously for further spread; if damage exceeds economic threshold level, spray Endosulfan @ 2ml/ litre of water after spells of rain to control the pest.
- **Bud and stem necrosis** disease is reported in **groundnut**. Monitor the crop continuously for further spread; if damage exceeds economic threshold level, spray Dimethoate @ 400 ml/ha or Methyl Demeton @ 360 ml/ after spells of rain to control the vector thereby reducing the spread of disease.

Eastern Region (Assam, Bihar, Sikkim, West Bengal)

Assam

Light to moderate rain occurred at most places on 11th and 12th September and at many places on 13th September with isolated heavy to very falls on 11th and heavy falls on 13th September over the State. Sky was generally cloudy.

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

Warning: Isolated heavy to very heavy falls are likely over the State.

Advisories

- As rain / thundershowers are likely at many places over the State for next three days, postpone irrigation to **sugarcane, vegetables** and **arhar**.
- Maintain 3 – 5 cm water level in **Sali rice** field.
- Infestation of **stem borer** is reported in **sugarcane** in a few localities and weather conditions are favourable for further spread. Monitor the crop for **stem borer** and if crosses economic threshold level, apply Phosphomidon @ 1.5 ml per litre of water and 400 – 500 ml per bigha or Endosulfan @ 2 ml per litre of water and 1 – 1.5 litre per bigha after current spells of rain two-three rounds fortnightly starting from the rush egg lying.

- Apply plant protection measures to *sali rice* when one adult of *rice hispa* per hill or one leaf is found damaged by *hispa*. Apply Monocrotophos 40 EC @ 1.5 ml per litre of water or Chloropyriphos 20 EC @ 2 ml per litre of water to control the insect. If attack of *Stem borer* is noticed apply Monocrotophos 40 EC @ 1.5 ml per litre of water. Apply chemicals after current spells of rain.
- To control *Pod* and *Epion borer* in *Arhar* spray Malathion 50 E.C. @ 1.5 ml per litre of water or Fenitrothion 50 E.C. @ 2ml per litre of water after current spells of rain. For control of *Flea beetle*, *leaf roller*, *Jassids* insecticides should be applied when they appear.
- Due to less rainfall around 30% of *Sali rice* area could not to be covered. Where *Sali rice* could not be transplanted, *black gram* and *green gram* may be sown in those areas.
- Select *Black gram* varieties from T -9, Pant U-19 and Saonimah (SB-121) and *Green gram* varieties from T-44, Pratap and AAU-39. Prepare land on a non-rainy day applying fertilizers @ 3 kg Urea, 30 kg SSP per bigha to obtain more yields.

West Bengal

The SW Monsoon was active over Sub Himalyan West Bengal on 12th & 13th September. Heavy rain occurred at isolated places over Sub Himalyan West Bengal on 11th & 13th September and heavy to very heavy rain occurred at a few places over Sub Himalyan West Bengal on 12th September. During the said period over Sub Himalyan West Bengal rainfall occurred at many places on 11th September and most places on 12th and 13th September. During the said period over Gangetic West Bengal rainfall occurred at an isolated places on 11th and 13th September and at a few places on 12th September.

Rain / thundershowers are likely at many places over Sub-Himalayan West Bengal and at a few places over Gangetic West Bengal.

Advisories

- As there was excess rain in *Nadia* district during last week and rain / thundershowers are likely at a few places over Gangetic west Bengal for next three days, apply irrigation to *sugarcane*, *green gram* and *groundnut* depending on soil moisture status in this district. As remaining districts of Gangetic West Bengal received no significant rain during last week, apply irrigation to the crops to bring soil to its field capacity.
- As rain / thundershowers are likely at many places over Sub-Himalayan West Bengal with the possibility of isolated heavy to very heavy falls, postpone irrigation to the crops in the districts of this region.
- Undertake intercultural operation in Gangetic West Bengal on a non-rainy day to keep the field weed free.
- In *aman rice* apply 2nd top dressing of nitrogenous fertilizer @ 25 kg / ha for high yielding varieties and 20 kg / ha for medium duration varieties at 40 – 45 days after transplanting and 20 kg / ha for long duration varieties at 60 – 65 days after transplanting in Gangetic West Bengal on a non-rainy day. Water may be drained out before the application of fertilizer and 3 – 5 cm water may be maintained in the field after 2 – 3 days.
- There is mild chance of attack of *caterpillar* and *tikka* disease in *groundnut*. If *caterpillar* population crosses economic threshold level, apply neem derivative insecticides 1000 ppm @ 4 gm / litre to control the pest. If *tikka* disease attack crosses economic threshold level, apply mancozeb 2% to control the disease. Apply chemicals on a non-rainy day in Gangetic West Bengal.
- Postpone intercultural operation and application of fertilizer and plant protection measures to the crops in the districts of Sub Himalayan West Bengal under prevailing weather condition.

Bihar

Light to moderate rain occurred at many places on 9th, 10th, 11th, 12th September and at a few places on 13th September. On rest days rain occurred at an isolated places.

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

Advisories

- Bihar received no significant rainfall during last week in the State and rain / thundershowers are likely at

isolated places over the State for next three days. Under the circumstances, apply irrigation to **vegetables, maize, pulses, and oilseed** crops.

- Weeding and intercultural operations may done in **rice** and apply 25-30 kg/ha Nitrogen as top dressing. In moisture deficit areas spray 3-4 % urea solution as foliar spray. Also apply micronutrients.
- Incidence of **mealy bug** and **sheath blight** is reported in **rice** in few places. To control **sheath blight**, drain out water from field and spray Acephate 200 g + velidamycin 2 litre/ha. and to control **mealy bug** spray Dimethoate 1 litre/ha or Phorate 10G 10 kg/ha.

Jharkhand

Rain / thundershower occurred at a few places.

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

Advisories

- As there was no significant rainfall in the State during last week and rain / thundershowers are likely at isolated places over the State for next three days, apply irrigation to **vegetables, maize, and other** crops.
- Also, continue intercultural operation, application of fertilizer and plant protection measures.
- Undertake weeding and top dressing in **rice**. Maintain 3-5cm of standing water in the field.
- Incidence of **stem borer** and **hispa** is noticed in **rice** in some places. Spray Metasystox 1ml/l of water to control the pests. Sandovit or Tipole solution should be added as sticker.

Sikkim

Sky remained cloudy during the period. Moderate rain occurred at many places during the period, except over Tadong on 11th September where light rain occurred at a few places. Rain was normal during the period.

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

Warning: Isolated heavy to very heavy falls are likely over the State.

Advisories

- As rain / thundershowers are likely to occur at many places over the State for next three days, postpone irrigation to **orange, large cardamom, ginger, kharif vegetables** and **rice** crops.
- Arrange for drainage facilities to avoid water stagnation due to heavy rainfall.
- Continue intercultural operations, application of fertilizers and pesticides in **orange, vegetables** and **ginger** after spells of rain.
- Monitor **large cardamom** crop for **caterpillar** infestation as the weather conditions are favourable for the incidence. Collect and destroy manually to prevent further incidences. Also collect and destroy **chirkey** and **foorkey** affected plants.
- Maintain water level of 3-4 cm in **rice** field to enable maximum tillering.
- Monitor **orange** for **trunk borer** and plug the holes in case of damage. Also monitor orange for **fruit fly**. Keep bait made of 20 ml Malathion and 200 g molasses or gur in 2 litres of water after spells of rain to control **fruit fly** and prevent fruit drop.

Arunachal Pradesh

Rain / thundershower occurred at most places on 08th, 10th, 11th, 12th and 13th September, at many places on 07th September and at a few places on 09th September. Sky remained partly cloudy to mainly cloudy over the state during the week.

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

Warning: Isolated heavy to very heavy falls are likely over the State.

Advisories

- As rain/thundershowers are likely to occur at many places in the State for the next three days, postpone irrigation to new crop of **ginger, jhum rice** at grain formation stage and **wet seeded rice**. Arrange for drainage facilities to avoid water stagnation due to heavy rainfall.
- Maintain required depth of standing water in **wet seeded rice** field. Drain out the water 15 days before harvesting.
- Field preparation for sowing of potato may be continued after current spells of rain.

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

Gujarat

Monsoon was subdued over the region on 11th September. Rainfall occurred at isolated places over South Gujarat region, Daman, Dadra Nagar Haveli on 12th September.

Rain/thundershowers are likely at isolated over south Gujarat region. Mainly dry weather is likely over rest of Gujarat.

Advisories

- As there was no significant rain in the State except **Ahmedabad, Banaskantha, Baroda, Dahod, Gandhinagar, Kheda, Mehsana, Panchmahal, Patan, Sabarkantha, and Surendranagar** districts during last week and rain / thundershowers are likely at a few places over South Gujarat and mainly dry weather in north Gujarat for next three days, apply irrigation to **sugarcane, Kharif groundnut, Kharif bajra, Kharif maize, pre-monsoon irrigated cotton, Kharif cotton** and **castor**. Apply irrigation depending on the soil profile stored moisture in the above mentioned districts.
- Maintain 3 – 5 cm water in **rice** fields.
- There is possibility of attack of **stem borer** in **kharif rice**. Monitor the crop for **stem borer** and if crosses economic threshold level, apply carbofuran 3 % @ 25 kg / ha or cartap hydrochloride 4% @ 20 kg / ha for the control of the insect. To control the **sucking pest** spray Monocrotophous 12 ml or DDVP 5 ml or trizophous 10 ml in 10 liter of water.
- If population of sucking pests like **Aphid, Jassids, Thrips & Heliothis** of **cotton** crosses economic threshold level, release Chrysoperla eggs or first instar larvae @ 10000 / ha twice at the interval of 15 days.
- For monitoring & management of **boll worms & heliothis** of **cotton** hang 5 pheromance traps in one ha. Change the lures at an interval of 15 days. Destroy trapped moths every day. If boll worm population crosses economic threshold level, release parasite Tricogramma @ 1.5 lakhs / ha 5 to 6 times as per requirement depending upon infestation found in field.
- If **white fly** population crosses economic threshold level in **cotton**, spray Neem oil @ 4 liter / ha. For control of **top shoot borer** of **cotton** spray Endosulphan 35 EC @ 2 liter / ha if population crosses economic threshold level.
- Continue intercultural operation and application of fertilizer and plant protection measures to the crops under prevailing weather condition.

Chhattisgarh

During the period rain occurred at isolated places over all the divisions of the State.

Rain / thundershowers are likely over at a few places over south Chhattisgarh and isolated over north Chhattisgarh.

Advisories

- As there was no significant rain during last week and rain / thundershowers are likely at isolated places over the State for next three days, apply irrigation to **Sugarcane, green gram, black gram, red gram, soybean, groundnut** and **vegetables**.
- Drain out water from the **rice** field and apply second split dose of N @ 25 – 30 kg / ha at 45 – 50 days after

transplanting as top dressing. Maintain 3 – 5 cm water in the field after 2 – 3 days of fertilizer application.

- Prepare nursery for vegetables like **tomato**, **chilly**, **brinjal** etc. on the bed of 6-8 inch height.
- Weather is favourable for sowing of **Niger seed** and **Kulthi** in Bastar division. For **Kulthi** prefer variety like A.K. 21, Marukulthi, B.K. 1 and for **Niger seed** I.G.P. 76, G.A.10, J.N.C. 6, B.N. 1.
- There is possibility of attack of **stem borer** in **rice**. Monitor the crops and if crosses economic threshold level, thimet 10 G @ 10 kg / ha or carbofuran 3 G @ 25 kg / ha may be applied.
- There is possibility of attack of **leaf eating** or **leaf curl insects** in **pulses**. Monitor the crops and if crosses economic threshold level, Endosulphon 35 EC @ 1000 ml or quinalphos or methyl demeton 25 EC @ 800 ml / ha may be applied.

Maharashtra

Rainfall occurred at many places over Madhya Maharashtra, South Konkan & Marathwada, at a few places in North Konkan and at isolated places in Vidarbha.

Rain / thundershowers are likely at many places over South Konkan & Goa, at a few places over north Konkan, Marathwada and Madhya Maharashtra & Vidarbha.

Advisories

- As Jalgaon, Nandurbar, Parbhani, Amraoti, Bhandara, Chandrapur, Gadchiroli, Gondia, Nagpur, Wardha, Washim and Yeotmal districts received no significant rain during last week and rain / thundershowers are likely a few places over Madhya Maharashtra, Marathwada & Vidarbha, apply irrigation to **Sugarcane**, **Jowar**, **Kharif** groundnut, **bajra**, **soybean**, **sunflower**, **kharif** cotton, **tur**, **moong** and **Cotton** (irrigated). As remaining districts in Madhya Maharashtra, Marathwada & Vidarbha received excess or normal rainfall during last week, apply irrigation depending on soil moisture status.
- A second dose of 40 kg Nitrogen / ha may be applied after 1 month from transplanting of **rice** in **North Konkan** on a non-rainy day. Water may be drained out before the application of fertilizer and 3 – 5 cm water may be maintained in the field after 2 – 3 days.
- Postpone intercultural operation and application of fertilizer and plant protection measures to the crops in **South Konkan** and **Goa** as rain / thundershowers are likely at many places over this region.
- Mild incidence of **White Woolly Aphids** in Aurangabad, Latur, Kohlapur and Pune and **Pyrilla**, **White fly** and **Mealy bug** in Nashik in sugarcane, **Stem borer** in Raigad, **Army worm**, **Leaf roller**, **Blue beetle** and **Hispa** in Raigad and Sindhudurga and **Aphids** and **Army worm** in Sangli district & **Blight** and **blast** in Nagpur division in **Kharif** rice, **Stem borer**, **aphids** and **jassids** in Satara and Sangli dist. & **shoot fly** in Amraoti div. in jowar, **Leaf eating cater pillar** and **Leaf roller** in Kolhapur in **Groundnut**, **Leaf eating cater pillar** in Kolhapur, Latur and Amraoti div. and Wardha dist in soybean, **Leaf cater pillar** in Latur division in sunflower, **Aphids** & **Jassids** in Aurangabad & Vidarbha div. and **Root rot** in Nashik in irrigated cotton and **Aphids** and **Jassids** in Aurangabad and Vidarbha division in **kharif** cotton, **leaf roller** in Amravati division in tur and **White fly**, **Jassids** & **Thrips** in Nashik & **Sap sucking insects**, **Leaf cater pillar** in Latur division in **moong** is reported.
- For the control of **White Woolly Aphids** in **sugarcane**, release 2500 eggs or larvae of *Krysopepla carnea* or *Konobatra aphidivora* parasite on the leaves or spray Endosulphan 1 ml plus Metasistox 1 ml mixed in 1 liter water on a non-rainy day.
- Monitor **Pyrilla** infestation in **sugarcane** & if it exceeds economic threshold level, release 5000 larvae or 5 lakh eggs / ha of *Ipiricania melyanoluka* or spray monocrotophos 36 % @ 850 ml in 500 liter water / ha on a non-rainy day.
- Monitor the **stem borer** population in rice and if crosses economic threshold level, use phorate 10G @ 10 kg or Quinalphos 5G @ 15 kg / ha on a non rainy day in North Konkan.
- Monitor the **army worm** population in rice and if crosses economic threshold level, spray 25 % Cypermethrin @ 120 ml or 36 % Monocrotophos @ 700 ml / ha in 500 liter water on a non rainy day in North Konkan.
- Monitor the **Leaf roller** population and if crosses economic threshold level, integrated pest management may be done. Spray 5% Neem extract or release 50000 eggs / ha of *Trichogama Japonicam* 3 to 4 times after 10 days interval or on major incidence spray 36 % Monocrotophos @ 700 ml in 500 liter water on a

non rainy day in North Konkan.

- Monitor the **blast** disease in **rice** and if crosses economic threshold level, Blitox 50 (Copper oxychloride) @ 2.25 kg or Bavistin 50 WP @ 750 g or Hinosan @ 750 ml in 750 litre water / ha may be applied on a non-rainy day.
- Monitor the **stem borer**, **aphids** and **jassids** population in **jowar** and if crosses economic threshold level, spray 5 % Neem seed extract or 35 % endosulphon @ 14 ml or 30 % dimethoate @ 10 ml plus 10 ml sticker in 10 liter water on a non-rainy day.
- Monitor **Shoot fly** in **jowar** & if exceeds economic threshold level, spray 35 % Endosulphon @ 350 ml / ha in 250 liter water on a non rainy day.
- Monitor the leaf roller population in **groundnut** and if crosses economic threshold level, spray 36% WSC monocrotophos @ 700 ml or 25% WSC quinolphos @ 1000 ml / ha in 500 liter water on a non-rainy day.
- Monitor the **leaf eating cater pillar** population in **soybean** and if crosses economic threshold level, spray quinolphos 25 EC or monocrotophos 36 EC @ 700 ml / ha in 500 liters of water on a non-rainy day.
- Monitor the **leaf cater pillar** population in **sunflower** and if crosses economic threshold level, spray quinalphaos 25 EC or monocrotophos 36 EC @ 700 ml / ha in 500 litres of water on a non-rainy day.
- Monitor **aphids** and **jassids** population in **cotton** and if crosses economic threshold level, spray methyl dimeton 25EC or dimethoate 30EC @ 500 ml / ha in 500 liter water on a non-rainy day.
- Monitor **Root rot** in **irrigated cotton** and if crosses economic threshold level, spray Carbendanzim 50 WP @ 250 gm / ha in 500 liter water on a non-rainy day.
- Monitor **leaf roller** population in **tur** and if crosses economic threshold level, spray 1000 ml endosulphon / ha in 500 liter water on a non-rainy day.
- Monitor **White fly** population in **moong** & if it exceeds economic threshold level, spray Methyl demeton 320 ml / ha in 500 liter water on a non-rainy day.
- Monitor **Jassids & Thrips** in **moong** and if exceeds economic threshold level, spray 5 % Neem extract or SLNPV 250 LE viral solution or Quinolphos 25 EC or Monocrotophos 36 EC @ 700 ml / ha in 500 liter water on a non rainy day.

Madhya Pradesh

Rainfall occurred at a few places in South East M.P. and at isolated places over rest of the State from 11th to 13th September.

Rain / thundershowers are likely to occur at isolated places over South Madhya Pradesh and weather may be mainly dry over north Madhya Pradesh.

Advisories

- There was no significant rainfall except in **Seoni**, **Betul**, **Jhabua**, **Ratlam**, and **Ujjain** districts in the State during last week and rain / thundershowers likely to occur at isolated places over South Madhya Pradesh and weather may be mainly dry over north Madhya Pradesh. Under the circumstances apply irrigation to **sugarcane**, **moong**, **kharif soybean**, **jowar**, **urad**, **tur**, **cotton** and **maize** crops to bring the soil moisture to its field capacity. Apply irrigation in the remaining districts depending on soil profile stored moisture as excess/normal rainfall received during last week.
- Maintain 3-5 cm water level in **Kharif rice** field.
- Also continue intercultural operation and application of fertilizer and plant protection measures to the crops under prevailing weather condition.
- To control pests by chemical method for **Blue beetle** in **Soyabean** spray Ethaphenprox or Oxidemeton Methyl one litre/hectar, for semiloopers spray Trizophos 40 E.C.750 ml or Quinolphos 25E.C.1500ml or Cholopyriphos 20E.C.1250 ml dissolved in 750 liters of water. For **Garda beetles** use Hostathion 40 E.C.800 ml.

Orissa

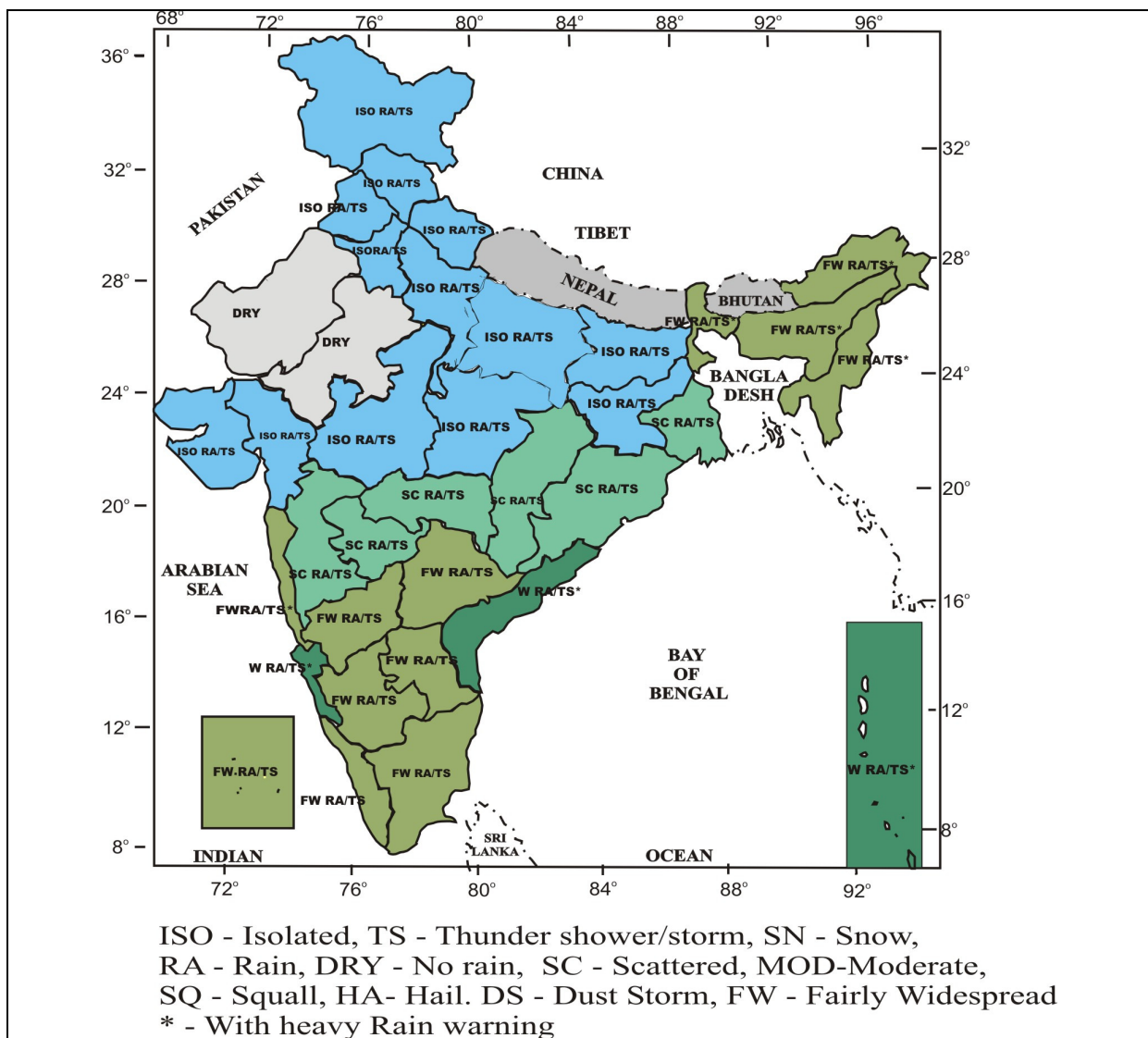
Southwest monsoon has been subdued over the State on 13th September. Rainfall occurred at isolated places over the State during the whole period.

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

Advisories

- There was no significant rainfall over the State during last week and rain / thundershowers are likely at a few places over the state for next 3 days, apply need based irrigation to **vegetables, sugarcane, ground nut** and **jute** crops to bring the soil moisture to its field capacity.
- At five months stage of sugarcane crop perform propping by combining plants of two rows so that the crops do not lodge by wind.
- Maintain 3 – 5 cm water in the rice field wherever crops are at tillering stage.
- Undertake fertilizer and plant protection measures on a non rainy day.
- To manage **swarming caterpillar** in **rice**, Dust them with Chloropyriphos 1.5% or Methyl Parathion dust. Spray Validamycin @ 2 ml / litre of water to manage **Sheath blight** in **rice**.
- To control **leaf blight** and **wilt** in **vegetables** spray Mancozeb 3 gm per litre of water along with 1gm Plantomycin per litre of water pointing to root zone on a non rainy day. To manage the **fruit borers** spray Cartap hydrochloride @ 1gm per litre of water on a non rainy day.
- To manage **tikka** disease in **groundnut**, spray 2 gm of saaf or companion per litre of water.
- To control the **semi looper** in **jute**, spray Endosulfan or Phasalone @ 2ml per litre of water.

Forecast valid upto 17th September, 2006



Salient weather features for the week ending 13/09/06

METEOROLOGICAL ANALYSIS

- Last week's well marked low pressure area over West Madhya Pradesh and adjoining Rajasthan lay over south Rajasthan and adjoining Gujarat on 7th. It weakened into a low pressure area and moved away westwards on 8th.
- An off shore trough at sea level ran from south Karnataka coast to Kerala coast during 8th to 13th.
- An Upper air cyclonic circulation lay over extreme south peninsula extending upto 5.8 Km above sea level and tilting southwestwards with height during 7-9th. It lay over Coastal Karnataka and adjoining southeast Arabian Sea during 10-13th.
- A cyclonic circulation developed over west central Bay of Bengal on 12th extending between 2.1 and 3.6 Km above sea level. It persisted on 13th extending between 1.5 and 4.5 Km above sea level.
- A trough in lower tropospheric levels ran across West Bengal on 8th, from Bihar to north Orissa on 9th -11th and from Sub-Himalayan West Bengal & Sikkim to north Orissa on 12 & 13th.

RAINFALL

Under the influence of the above systems:

- The monsoon was active over East Rajasthan on 7th and over West Rajasthan & Gujarat Region on 8th causing isolated heavy to very heavy falls. Fairly widespread rainfall with isolated heavy falls also occurred over West Madhya Pradesh and Vidarbha on 7th.
- The monsoon was active/vigorous with isolated heavy to very heavy falls over Arunachal Pradesh, Assam & Meghalaya and Sub-Himalayan West Bengal & Sikkim on many days of the week. Fairly

widespread rainfall also occurred over Nagaland, Manipur, Mizoram & Tripura on 11th & 13th and over Gangetic West Bengal and Bihar on 10th.

- The monsoon was active/vigorous with isolated heavy to very heavy falls on many days over extreme south peninsula during 9-13th. Fairly widespread rainfall with isolated heavy to very heavy falls also occurred over Andaman & Nicobar Islands and Lakshadweep on many days of this period.
- The rainfall activity was subdued over most parts of northwest India, Central India, east India and adjoining subdivisions of Andhra Pradesh with only scattered /isolated rainfall on many days of the week.

RAINFALL DURING THE WEEK ENDING ON 13TH SEPTEMBER, 2006

Rainfall was excess/normal in 18 and deficient/scanty in 18 out of 36 meteorological sub-divisions (Actual: 34.3 mm, Normal: 46.3 mm and Departure: -26%).

CUMULATIVE SEASONAL RAINFALL (1ST JUNE TO 13TH SEPTEMBER, 2006)

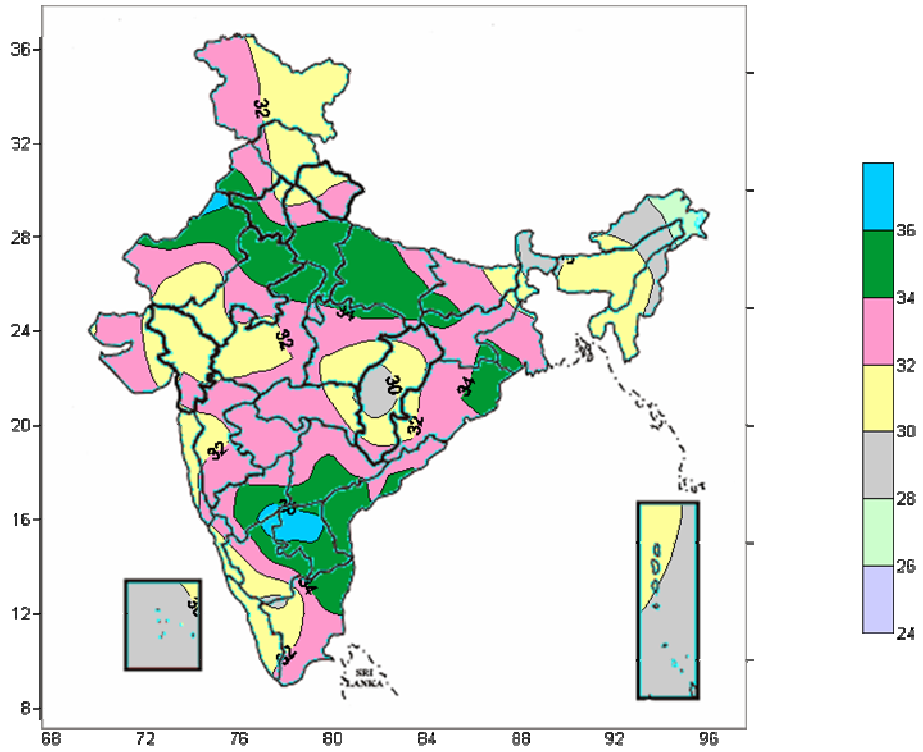
Rainfall was excess/normal in 26 and deficient in 10 out of 36 meteorological sub-divisions. (Actual: 792.0 mm, Normal: 804.9 mm and Departure: -2%).

OUTLOOK FOR THE WEEK ENDING ON 20TH SEPTEMBER, 2006.

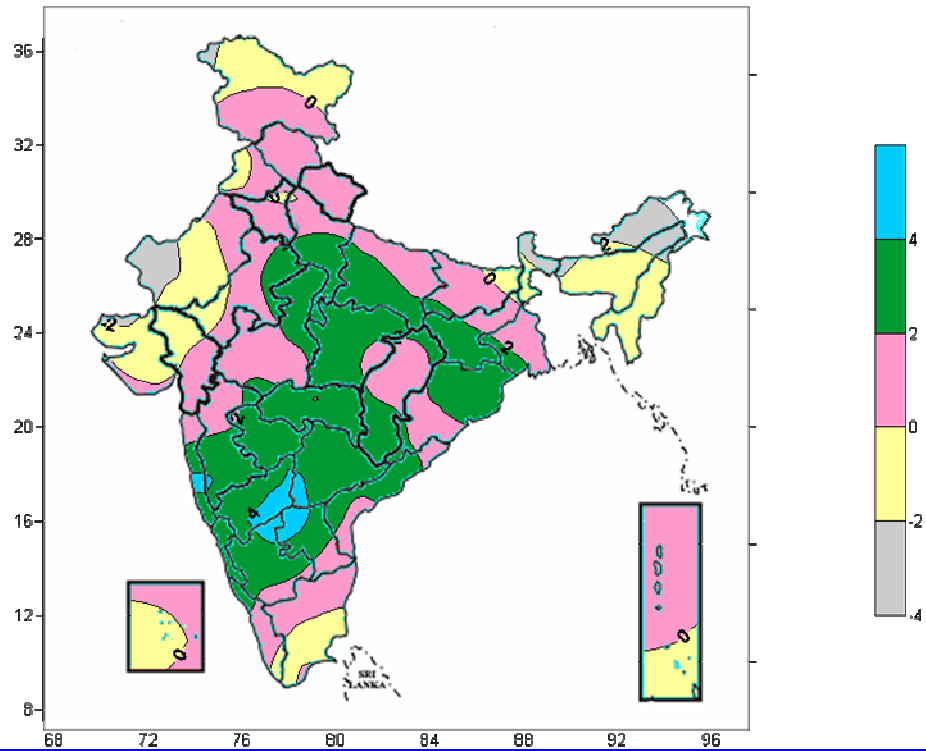
- Fairly widespread rainfall activity is likely to continue over northeastern States, Sub-Himalayan West Bengal & Sikkim and south Peninsula during first half of the week.
- The numerical weather prediction models suggest formation of a low pressure over westcentral Bay of Bengal around 16th and subsequent movement in a northwesterly direction. Under its influence, increase in rainfall activity is likely over Andhra Pradesh, Karnataka, Maharashtra and Goa.



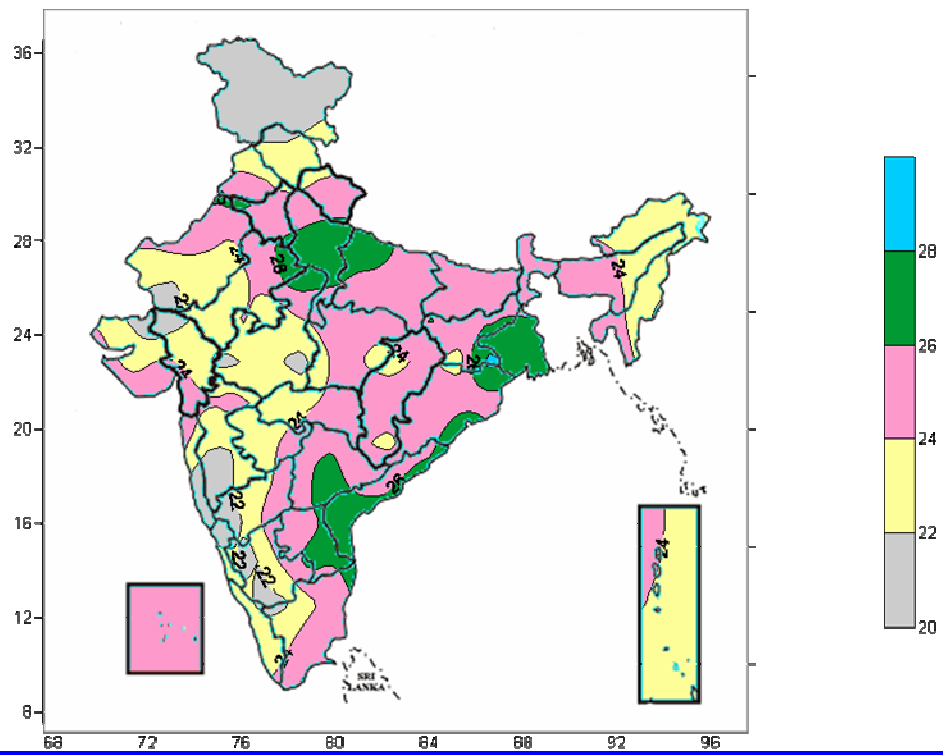
Actual mean maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 13.09.06



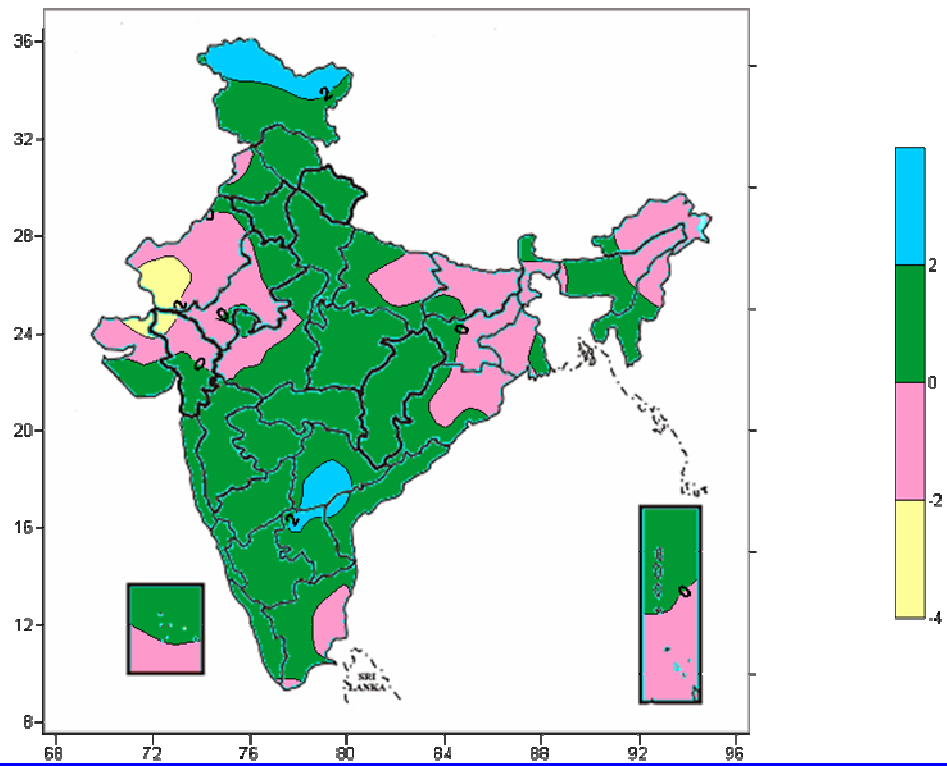
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 13.9.06



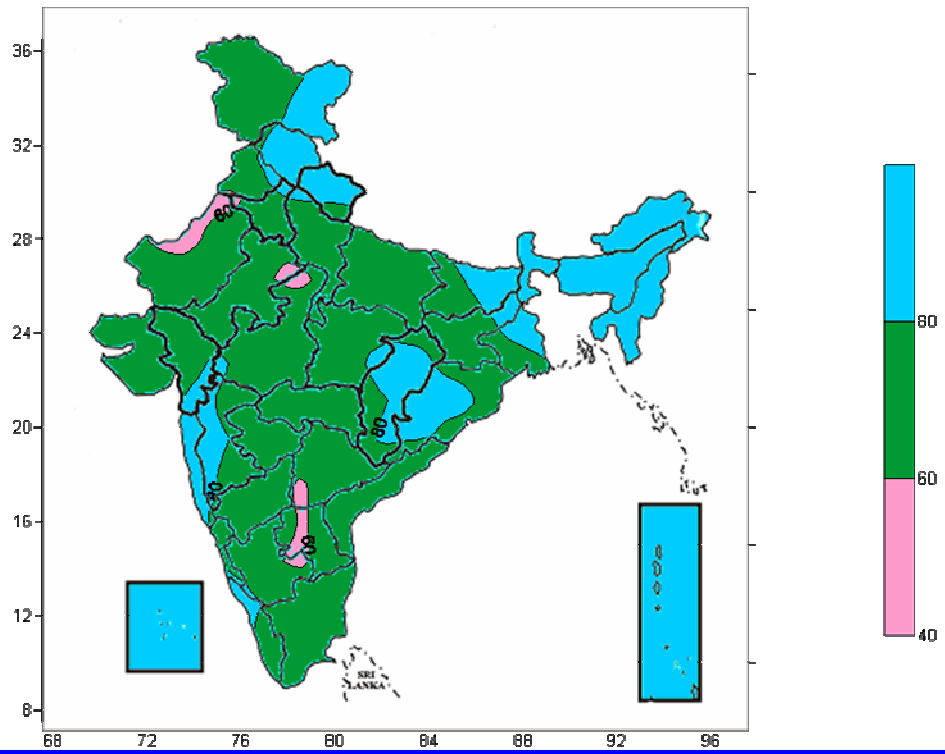
Actual mean Minimum Temperature ($^{\circ}\text{C}$) In India for the week ending 13.9.06



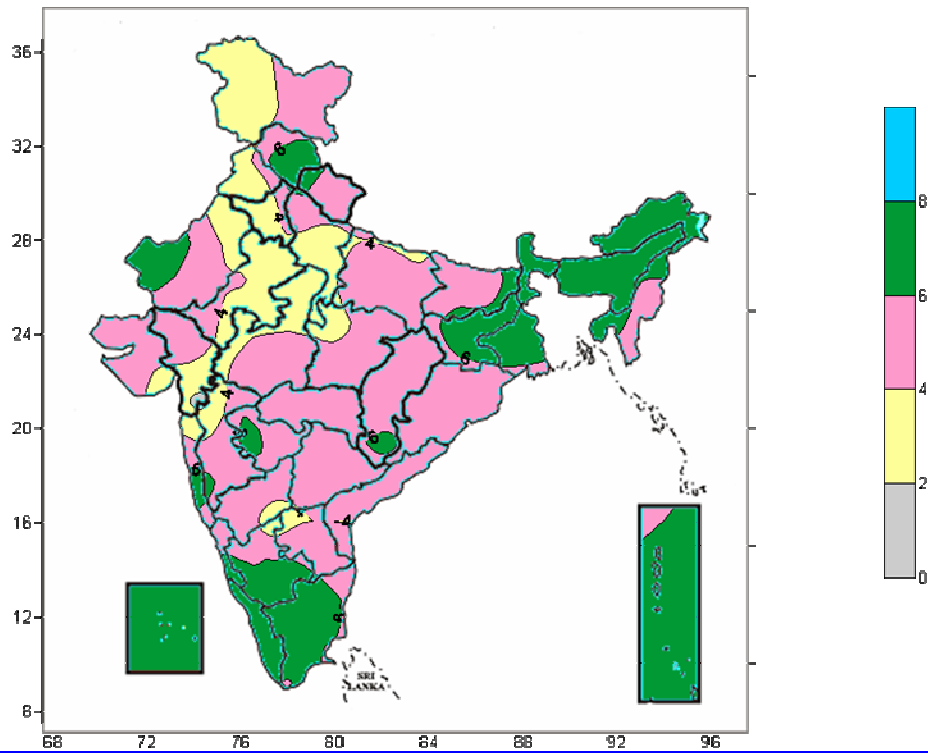
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 13.9.06

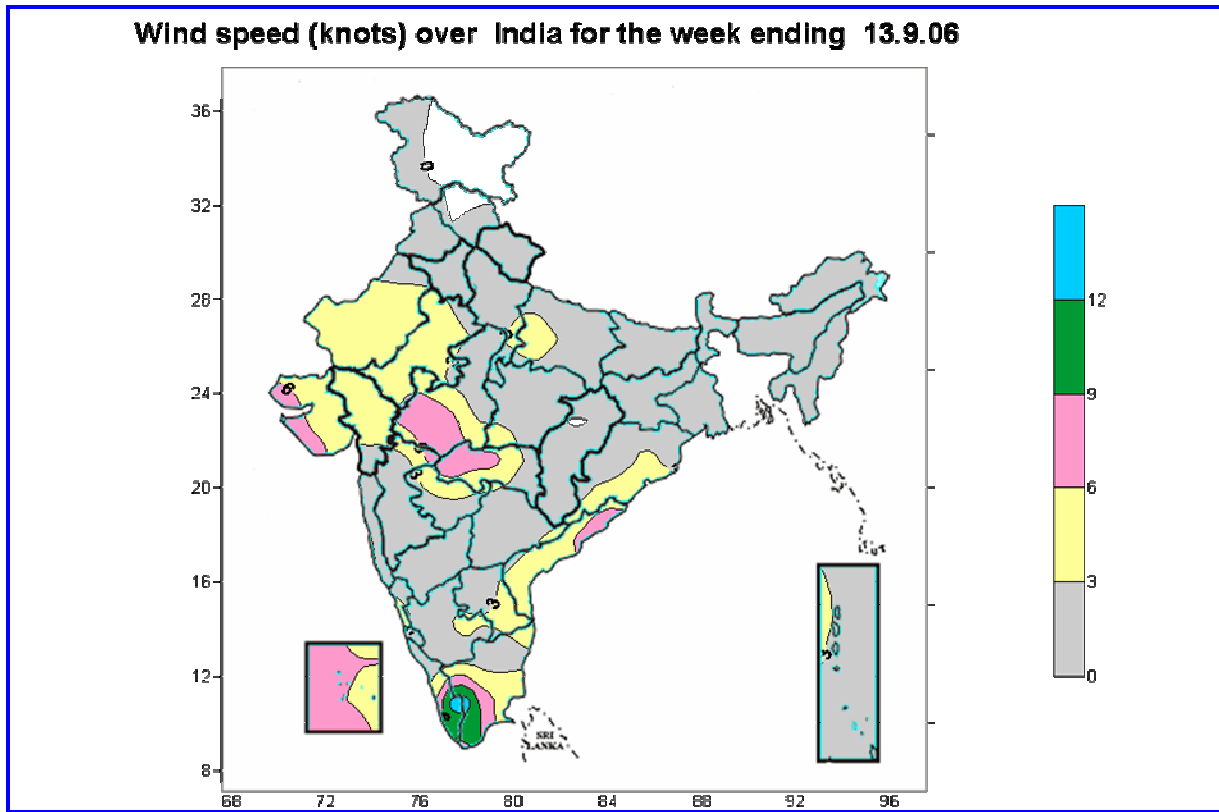


Relative humidity (%) over India for the week ending 13.9.06



Cloud amount (okta) over India for the week ending 13.9.06





Desert Locust Forecasting



Rainfall (mm)							
Station Name	7.9.06	8.9.06	9.9.06	10.9.06	11.9.06	12.9.06	13.9.06
Amritsar	1.2	2.1	-	-	-	-	-
Barmer	.3	22.2	1.4	-	-	-	-
Sriganganagar	-	-	-	-	-	-	-
Jaisalmer	0.7	0.7	2.6	0.6	-	-	-
Kota	6.1	-	-	-	-	-	-
Deesa	20.8	83.7	-	-	-	-	-
Churu	-	-	-	-	-	-	-

Temperature (degree celcius)							
Station Name	7.9.06	8.9.06	9.9.06	10.9.06	11.9.06	12.9.06	13.9.06
Amritsar	28.5	28.5	27.5	29.0	29.5	28.0	29.5
Barmer	30.5	-	23.5	26.5	27.0	-	26.5
Sriganganagar	32.0	31.5	31.5	32.0	32.5	-	30.5
Jaisalmer	32.5	29.5	26.0	26.5	28.5	-	28.5
Kota	29.0	28.0	28.5	29.5	30.0	-	30.0
Deesa	27.0	22.5	25.5	-	26.5	26.0	26.0
Churu	-	-	-	-	-	-	-

Wind

Station Name	7.9.06		8.9.06		9.9.06		10.9.06		11.9.06		12.9.06		13.9.06	
	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.
Amritsar	-	-	-	-	10	WSW	10	WSW	13	WSW	01	SE	-	-
Barmer	-	-	20	SW	10	SW	05	WSW	13	SW	-	-	-	-
Sriganga nagar	-	-	15	SE	05	S	10	WSW	07	WSW	-	-	-	-
Jaisalmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kota	-	-	25	SW	10	WSW	05	S	08	SSW	-	-	-	-
Deesa	-	-	-	-	-	-	15	SW	-	-	-	-	-	-
Churu	-	-	15	S	10	SW	15	WSW	08	W	-	-	-	-

- Heavy rains and flooding occurred last month along the **Indo-Pakistan** border (Rajasthan, **India** and Tharparkar, **Pakistan**) that will allow breeding conditions to remain favourable for several months. Solitarious populations are only present in Rajasthan and Tharparkar at the moment Present weather conditions are conducive for development of locust in North & Northwest belt of the country. Farmers are advised to monitor locust population. Carry out anti locust operations, if the population of the pest crosses Economic Threshold Level (ETL).

CROP – STATE – STAGE

Delhi

Toria	Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot, and turnip)	Arhar	Rice	Green gram, black gram
sowing	Nursery sowing/ Transplanting	early maturity / maturity	Flowering / grain formation	early maturity / maturity
Bajra	Fodder (Mixed maize , Lobia)	Maize	Early sown vegetable crops	
Flowering / grain formation	Vegetative	Cob formation	Vegetative/ flowering/ fruiting/ harvesting	

Haryana

Horticultural crop	Sugarcane	Paddy	Maize	Cotton
Fruiting	Vegetative	Flowering	Cob formation	Boll formation
Bajra	Groundnut	Kharif pulses		
Ear head formation/ maturity	Pod formation	Vegetative		

Himachal Pradesh

Rice	Maize	Apple	Summer vegetables (Tomato, brinjal, ladies finger)	Fodder crops
Panicle initiation / flowering / grain formation	cob formation	Harvesting	Vegetative/flowering / fruiting / harvesting	Vegetative
Moong / Mash	Fruit plants	Potato	Summer vegetables Cauliflower/ Cabbage	
Early maturity / maturity	Fruiting/maturity	Tuber formation/ maturity	Preparation of nursery (Lower hills) Transplanting (Mid hills)	

Jammu & Kashmir

Vegetables crops	Rice	Maize	Kharif crops	Horticultural crops
Flowering/ fruiting	Flowering	Grain formation /	Flowering	Planting

		development		
Fodder crops (Maize, Bajra, MP Chari)	Flower crops	Toria		
Vegetative	Seed bed preparation for sowing	Sowing		

Punjab

Sugarcane	Paddy	Maize	Cotton	Kharif pulses
Vegetative	Grain formation	Cob formation	Boll formation	Flowering/ pod formation
Groundnut	Autumn cane	Hybrid Maize		
Pod formation	Planting	Sowing		

Rajasthan

Cotton	Groundnut	Bajra	Pulses	Soyabean
Flowering	Flowering	Flowering / ear head formation	Vegetative	Flowering
Maize				
Flowering / cob formation				

Uttar Pradesh

Early sown Pulses	Kharif Pulses (Urad & Moong)	Sugarcane	Kharif Vegetables (Early sown)	Summer vegetables
Early vegetative/vegetative	Vegetative/ flowering	Vegetative	Vegetative	Harvesting
Mango	Kharif Maize, Jowar, Bajra	Kharif rice	Kharif vegetables	Kharif Oilseeds
Harvesting	Vegetative	Vegetative/ tillering	Transplanting	Vegetative/ Flowering
New Mango				
Active growth				

Uttaranchal

Rice & cauliflower	Mango/Litchi	Lady's finger / French Bean	Sugarcane	Chilli & Tomato
Vegetative/ heading	Seedling	Fruiting/ harvesting	Tillering/ grand growth	Fruiting / maturity
Apple	Millets (Ragi)			
Maturity	Vegetative			

Assam

Maize	Sugarcane	Jute	Vegetables	Balck gram and Green gram
Harvesting	Cane formation /cane maturity	Harvesting	Fruiting/Maturity / harvesting	Land preparation / sowing
Sali rice	Arhar			
Vegetative/tillering	Vegetative			

Arunachal Pradesh

Wet seeded rice	Ginger	Potato	New Ginger crop	Jhum Paddy
Grain formation / maturity	Early vegetative	Land preparation	Sprouting/ early vegetative	Grain maturity

Bihar

Fruits and Vegetables	Rice	Maize	Pulses and Oil seeds	
Vegetative	Vegetative / tillering	Flowering/cob formation	Seed formation	

Jharkhand

Rice	Upland crops (groundnut, arhar, urad)	Finger millet	Maize
Vegetative	Vegetative	Vegetative	Vegetative / flowering
Kharif vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)	Early planted kharif vegetables		
Transplanting	Early vegetative / vegetative		

Sikkim

Orange	Rice	Large Cardamom	Kharif vegetables	Ginger
Fruiting/harvesting	maximum tillering / early flag leaf	maturity	Fruiting/ harvesting	Late vegetative

	initiation			
Rabi vegetables				
Nursery sowing				

West Bengal

Aus rice	Sugarcane	Jute	Green Gram	Aman rice
Tillering/ panicle initiation/ flowering	Vegetative	Harvesting	Pod formation/ early maturity	Grain maturity
Groundnut				
Flowering / pegging/ pod formation				

Chattisgarh

Chilly, Brinjal, Ladies finger, Beans, Bottle gourd	Niger, Kulthi	Sugarcane	Kharif rice	Soybean
Vegetative / flowering / fruiting / harvesting	sowing	Vegetative	Tillering / panicle initiation / flowering	Vegetative / flowering
Blackgram / Greengram	Groundnut	Red Gram	Tomato, chilli, brinjal	
Vegetative/flowering /pod formation	Vegetative / flowering/ pegging	Vegetative / flowering / pod formation	Nursery preparation	

Gujarat

Kharif Maize	Premonsoon irrigated Cotton	Kharif groundnut	Early Sown Rice	Sugarcane
Tasseling/ silking/ cob formation	Vegetative/ Square formation	Flowering / pegging	Early tillering/tillering	Elongation/ cane formation
Kharif Cotton	Castor	Kharif bajra	Kharif Rice	
Vegetative/ square / boll formation	Sowing/ germination / vegetative	Flowering/ grin formation	Tillering	

Maharashtra

Kharif Groundnut	Tur	Irrigated Cotton	Sugarcane (Seasonal)	Bajra (Madhya Maharashtra, Marthwada and Vidarbha)
flowering/pegging/ pod formation	Early vegetative/ branching	Vegetative / square formation	vegetative	Flowering / grain formation / grain maturity
Jowar	Kharif sunflower	Soyabean	Kharif rice (Konkan)	Kharif rice (Madhya Maharashtra, Marathwada & Vidarbha)
Vegetative / flag leaf initiation	floral bud initiation / flowering / head formation	Flowering / pod formation	Tillering / panicle initiation / flowering / grain maturity	tillering (in Vidarbha), active tillering / flag leaf initiation (in Madhya Maharashtra, Marathwada)
Moong	Kharif cotton			
pod formation / early maturity	Early vegetative/vegetative			

Madhya Pradesh

Sugarcane	Moong	Kharif crops (Jowar, urad, tur)	Kharif Soyabean	Kharif rice
Vegetative	Flowering / pod formation	Flowering/ pod formation/ grain formation	Flowering/pod formation	Panicle initiation/flowering
Maize	Cotton			
Cob formation	Flowering			

Orissa

Vegetables	Earlier sown vegetables	Early sown Groundnut	Groundnut	Sugarcane
Sowing /	Flowering / fruiting /	Early vegetative /	Sowing	Vegetative / tillering

transplanting /vegetative	harvesting	vegetative/ pod development		
Kharif rice	Early transplanted rice	Pulses	Early sown Pulses	jute
Transplanting	Early tillering / tillering	Sowing	Early vegetative / vegetative	Vegetative / reproductive

Andhra Pradesh

Kharif rice	Kharif crops(Chillies/ Groundnut/ Chillies/ Tur)	Maize / Cotton		
vegetative	Vegetative	Vegetative / flowering		

Karnataka

Groundnut	Sugarcane (Ratoon crop & new crop)	Kharif crops (jowar, maize)	Kharif rice	Early sown rice
Peg formation	Vegetative	Grain formation	Vegetative / tillering	Transplanting
Kharif cotton				
Square formation/ flowering				

Kerala

Rubber	Virippu Rice	Pepper		
Tapping	Maturity	Berry development		

Tamil Nadu

Pulses	Millets	Summer irrigated cotton	Early & mid sugarcane	Late season sugarcane
flowering	flowering	Maturity / harvesting	Vegetative / Grand growth	Harvesting
Rice (Kuruvai)	Groundnut			
vegetative	flowering / Sowing continued in some areas			