



Summary of Agromet Advisory Services for different States of the country

Issued by

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(For the period 25th to 29th October, 2007)

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

Agromet Advisory

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

- Northeast monsoon was active over the State on 23rd October and weak on 24th October. Rain occurred at most places on 23rd October, at many places on 22nd October and at a few places on 24th October.
- Rain / thundershowers are likely at many places over the State.

Warning: Isolated heavy to very heavy rainfall is likely over the State during next 48 hours.

Advisories

- As rain / thundershowers are likely at many places over the State for the next three days, postpone irrigation to plantation crops viz., coconut, arecanut, rubber and banana.
- Arrange for drainage facilities as isolated heavy to very heavy rain/ thundershowers is likely to occur during next 48 hours.
- Continue intercultural operations, application of fertilizers and pesticides in plantation crops after spells of rain.
- Attack of rhinoceros beetle, leaf rot and stem bleeding is reported in coconut. Fill the leaf axils with Sevidol 8G @ 25 gm mixed with 200 gm fine sand to control rhinoceros beetle. As a prophylactic measure spray crowns and leaves with 1% Bordeaux mixture or 0.5% copper oxychloride formulation or 0.4% Mancozeb. In the leaf rot affected plants, remove the rotten parts from the spear and the two adjacent leaves and pour 300 ml fungicidal solution at the base of the spear which can be prepared by mixing Hexaconazole @ 5 EC 2 ml or Mancozeb @ 3 gm in 300 ml of water. To control stem bleeding, chisel out completely the affected tissues and paint the wound with Tridemorph @ 5%. Apply coal tar after 1-2 days. Root feed with Tridemorph 5% to prevent further spread of lesions. Plant protection measures may be undertaken after spells of rain.
- Attack of *Phytophthora* foot rot is reported in pepper. Spray and drench with Copper oxychloride @ 0.2% after spells of rain to control the disease.
- Attack of pink disease is reported in rubber. Clean the affected portion and apply Bordeaux paste @ 1% after spells of rain.
- In early transplanted *mundakan* rice, attack of leaf folder, BPH, jassids and stem borer and blast and blight diseases is reported. Spray Fenthion 50 EC @ 1 litre/ha after spells of rain to control the pests. Apply *Pseudomonas* culture @ 25 kg/ha mixed with 50 kg of cow dung to control blast & bacterial blight disease. Application of *Pseudomonas* culture may not be done along with chemical fertilizers and plant protection chemicals. Plant protection measures may be undertaken after spells of rain.

Tamilnadu

- North East Monsoon was vigorous over the State on 24th October and active on 23rd October. Rainfall occurred at most places over the State on 23rd, 24th October and at many places on 22nd October.

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

Warning: Isolated heavy to very heavy rainfall is likely over the State during next 48 hours.

Advisories

- As rain / thundershowers are likely at many places with isolated heavy to very heavy rainfall is likely over the State during next 48 hours, postpone irrigation to sugarcane and early sown maize, groundnut, black gram, green gram and pulses.
- Monitor maize for stem borer and aphids and if the pests population crosses ETL, spray Carbaryl 50% WP @ 400 g/acre after current spells of rain to control the pest.
- Continue sowing of rainfed groundnut, black gram, green gram and red gram after current spells of rain. Use 112 kg pods/ha for groundnut and 20 kg/ha for pulse crops.
- Continue planting of special season sugarcane after current spells of rain. Undertake sett treatment with *Azotobacter* before planting. Continue harvesting late sugarcane after current spell of rain.
- Continue sowing rainfed millet crops like jowar, bajra and samai after current spells of rain. Undertake seed treatment with *Azospirillum* before sowing.
- Continue picking matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.

Karnataka

- On 22nd October, South West monsoon has withdrawn from the State. Simultaneously North East monsoon rains have commenced over Tamil nadu and adjacent areas of Karnataka State. On 23rd October, rainfall occurred at most places over Coastal Karnataka, at many places over South Interior Karnataka and at a few places over North Interior Karnataka. On 24th October, rainfall occurred at most places over South Interior Karnataka, at many places over Coastal Karnataka and at a few places over North Interior Karnataka.
- Rain / thundershowers are likely at a few places over Coastal and South Interior Karnataka and isolated over rest region of the State.

Advisories

- As rain / thundershowers is likely to occur at a few places over Coastal Karnataka and South Interior Karnataka and at isolated places over North Interior Karnataka, apply irrigation to summer sugarcane, *rabi* jowar, maize, cotton and sunflower.
- Monitor sugarcane for white woolly aphids and release predators *viz.*, *Dipha* sp. adopt wider spacing, inter-cropping with soyabean and pulses of short duration to control the pest. Undertake propping to prevent the crop from lodging due to dusty wind.
- Continue harvesting matured crops of maize and jowar and picking cotton on bright sunny days.
- Undertake intercultural operations and application of fertilizers in *rabi* crops like maize, jowar, sunflower and cotton. Intercultural operations may be undertaken on a non rainy day in Coastal Karnataka and South Interior Karnataka.

Andhra Pradesh

- Southwest monsoon further withdrew from the remaining parts of the State. Simultaneously Northeast monsoon rains have commenced over South Coastal Andhra Pradesh and Rayalaseema on 22nd October.
- Rain / thundershowers are likely to occur at many places over South coastal Andhra Pradesh and isolated over the rest region of the State.

Advisories

- As rain / thundershowers is likely to occur at many places over south Coastal Andhra Pradesh and Rayalaseema for the next three days, postpone irrigation to groundnut, rice and cotton. As

rain / thundershowers is likely to occur at isolated places over the rest region, apply irrigation to the crops.

- Monitor rice for brown plant hopper, leaf folder and sheath blight. To control BPH, spray Ethefenphos @ 1.5 ml or Acephate @ 1.5 g or Thiamethoxam @ 0.2 g per litre of water at the base of the plant. To control leaf folder, spray Acephate @ 1.5 gm per litre of water. To control sheath blight, spray Hexaconazole or Validamycin @ 2 ml or Propiconazole @ 1 ml per litre of water, twice at 15 days interval. Spraying of chemicals may be undertaken after spells of rain in south Coastal Andhra Pradesh and Rayalaseema.
- Monitor cotton for black arm, boll rot and tobacco streak virus. To control incidence of Black arm spray Copper-Oxy-chloride @ 30g + Streptocyclin @ 1g in 10 litres of water, 2 to 3 times at 15 days interval. To control incidence of boll rot, spray Copper-Oxy-chloride @ 30g + plantamycin @ 1 g in 10 litres of water, 3 to 4 times at 15 days interval. To control incidence of Tobacco Streak virus, spray Acephate @ 1.5g or Imidacloprid @ 0.3 ml or Thiamethoxam @ 0.3 g or Acetamaprid @ 0.2g or Monocrotophos @ 1.6ml per litre of water, twice at 1.6 ml per litre of water, twice at weekly interval to control thrips (Vector), alternating the chemicals. Spraying of chemicals may be undertaken after spells of rain in south Coastal Andhra Pradesh and Rayalaseema.
- Start picking cotton on bright sunny days. Picking may be undertaken after spells of rain in south Coastal Andhra Pradesh and Rayalaseema

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

Assam

- Light to moderate rain occurred at isolated places on 22nd and dry weather prevailed on 23rd and 24th over the State.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rain during last week and mainly dry weather is likely over the State, apply irrigation to arhar, black gram and green gram.
- Maintain 3 – 5 cm water in *Sali* rice field.
- Continue harvesting of matured crops of sugarcane. Red rod infested sugarcane may be harvested early and the field should be newly planted. Ratooning of infested plant should be discarded.
- Incidence of hispa and stem borer was noticed in *Sali* rice in few localities. Monitor the infestation of hispa and stem borer. If one adult is noticed per hill, insecticides like Chloropyriphos 20 E.C. @ 2 ml per litre of water or Monocrotophos 40 EC @ 1.5 ml per litre of water is to be applied. For management of yellow stem borer *Trichogramma Japonicum* @ 50,000 per hectare in six releases are to be used.
- In black gram and green gram, monitor the crops for aphids, jassids and flea beetle attack. Undertake spraying of Malathion 50 EC @ 2 ml/litre of water, if required. As soon as leaf spot disease appears Blitox or Fytolan @ 1.5 gm per litre of water should be sprayed at an interval of 7-10 days. Alternatively, Bavistin @ 1gm per litre of water should be sprayed at an interval of 12-15 days.
- Prepare land for early varieties of winter vegetables such as spinach, reddish & coriander etc. and seeds of hybrid varieties of tomato, brinjal, capsicum, cauliflower and cabbage etc. may be collected from reputed sources and should be sown in the seed bed for raising seedling for planting in the main fields.
- Completely flood damaged area and area which could not be covered due to non availability of *Sali* rice seedlings may be selected for cultivation of different *rabi* crops such as mustard, rapeseeds, pea, lentil, wheat etc. and land preparation may be started .Sowing may be

continued till 15th of November. For mustard and rape seed apply Urea @ 20 kg and SSP @ 30 kg per bigha at the time of land preparation and use seeds @ 1.5 kg per bigha for sowing. For pea apply Urea @ 6 kg, SSP @ 4 kg per bigha at the time of land preparation and use seeds @ 7 kg per bigha for sowing.

- For cultivation potato apply Urea @ 19 kg, SSP @ 45 kg and MOP @ 12kg per bigha at the time of land preparation and use tuber (2.5 cm in diameter, 25 gm by weight) @ 3 quintal per bigha for planting at distance of 15 cm.

Arunachal Pradesh

- Sky remained cloudy to partly cloudy over the State during the period. Rain / thundershowers occurred at most places on 17th October at many places on 16th October and at a few places on 15th October.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in most of the districts during last week except West Kameng district and mainly dry weather is likely over the State, apply irrigation to finger millet at grain formation stage. Postpone irrigation in the above mentioned district as there was excess rainfall during last week.
- Maintain 3-5 cm of water in wet seeded rice field.
- Undertake surveillance of rodent attack in *jhum* rice and millet.
- Continue sowing of wheat and mustard.
- Farmers are advised to sow potato seed @ 8-15 Quintal/ha depending upon the tuber size. 4 to 5 time ploughing should be done to have good tilth. Soil should be treated with Furadon 3G granules. Fertilizer NPK may be applied at the rate of 120 kg, 100 kg, 70 kg respectively. 11 to 30 Mt. FYM/ha. may be applied.
- Continue sowing of *rabi* vegetables like cauliflower, chinese cabbage, carrot, knol-khol, lettuce, methi, palak, peas, raddish, tomato, turnip etc.

Bihar

- Light to moderate rainfall occurred at isolated places on 18th October and rest of the day's weather was mainly dry.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in the State during last week except in Bhagalpur district and mainly dry weather is likely over the State for the next three days, apply irrigation to the standing crops. Postpone irrigation in the above mentioned district as there was excess rainfall during last week.
- Continue sowing of raddish, early cauliflower, chillies, fodder maize, mung, urd and arhar, castor & tomato.
- Continue land preparation and planting of potato. Select among Kufri Ashoka or Kufri Chandramukhi or Rajendra, Aloo-3.
- Monitor rice for sheath blight and leaf folder. To control sheath blight of rice, spray of 1litre of Hexaconazole mixed in 700 litre of water, twice at the interval of 15 days. Spray Imidacloprid 200 S.I @ 100 ml/ha or Monocrotophos 36 EC @ 1litre /ha.

Jharkhand

- Weather remained mainly dry.
- Mainly dry weather is likely over the State.

Advisories

- Apply irrigation to early sown vegetables as there was no significant rainfall during last week and mainly dry weather is likely over the State for the next three days.

- Monitor rice for gundhi bug. If damage exceeds ETL, spray 25 kg. Chlorpyrifos dust per hectare.
- Continue harvesting of upland crops like maize, groundnut, urd and moong. After harvest, undertake sowing of *rabi* crops like gram, sarson, rai, toria, pea, masoor and linseed wherever facilities for 2-3 irrigations are available.
- Continue land preparation and sowing of cabbage, cauliflower, chilli, potato, tomato, etc, Select among Altimous, Kufri Chandramukhi, Kufri Ashok, Kufri Badshah to plant potato in the main field.

Sikkim

- Sky remained generally cloudy during the period. Moderate rain occurred at many places on 22nd to 24th October, very light rain occurred at a few places on 21st October and weather was mainly dry on rest of the days during the period over East Sikkim. Rainfall was excess over East Sikkim during the period.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall during last week and dry weather is likely to prevail over the State for the next three days, apply irrigation to orange and ginger crops.
- Maintain water level of 3-4 cm in the rice field.
- Continue harvesting of large cardamom and orange.
- Monitor ginger for rhizome rot and bacterial wilt and rouge out the affected plants and destroy completely to prevent further damage.
- Monitor orange for fruit flies. Prepare baits made of Sevin and keep once in every 10-15 days till harvesting.
- Continue land preparation and nursery sowing of *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root.
- Continue land preparation and sowing of mustard in the field using residual moisture. Use certified seeds for sowing.

West Bengal

- Mainly dry weather is likely over the State.

Advisories

- As mainly dry weather is likely over the State for next three days, apply irrigation to the crops.
- Maintain 3 – 5 cm water in the field of *aman* rice.
- There is mild chance of attack of sheath blight, sheath rot and blast disease in *aman* rice. If 6 hills out of 20 hills are affected by sheath blight or 5% panicles are affected by sheath rot, apply Propiconazole 25% @ 1 ml or Hexaconazole 5% @ 1.5 ml or Carbendazim 50% @ 1 g / litre of water to control the diseases. If 25% hills are affected by blast disease, apply Tricyclozol 75% @ 0.5 ml or Carbendazim 50% @ 1 ml or Adiphenphos 50% @ 1 ml / litre water to control the disease.
- Start land preparation and sowing of mustard and rapeseed and planting of potato.

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

Gujarat

- Weather was mainly dry over the State.
- Mainly dry weather is likely to prevail over the State.

Advisories

- As there was no significant rain during last few weeks over the State and mainly dry weather is likely to prevail over the State for next three days, apply irrigation to sugarcane, *kharif* cotton and castor.
- In some places cotton crop is infested with mealy bug. Monitor the crop for mealy bug and if damage exceeds ETL, to control the pest spray Methyl dimeton 25 EC @ 10 ml or Phosphamidon 85 EC @ 5 ml or Dimethoate 30 EC @ 10 ml in 10 liters of water.
- Apply Carbofuran 3% @ 25 kg/ha or Cartap hydrochloride 4% @ 20 kg/ha for the control of stem borer in rice (milk / dough stage) and Monocrotophos @ 12 ml or DDVP @ 5 ml or Trizophos @ 10 ml in 10 liters of water for control of sucking pests, if insect population crosses economic threshold level.
- Harvest already matured crops of *kharif* groundnut.
- Undertake sowing of mustard variety G-Mustard 1-2-3 & Varuna with basal fertilizer doze of 25kg. Nitrogen & 50 kg Phosphorous per hectare. Wherever deficiency of sulphur in soil apply 40 kg sulphur as a basal doze.
- Prepare land for sowing of wheat.

Chhattisgarh

- Weather was mainly dry in all divisions of the State.
- Mainly dry weather is likely over the State.

Advisories

- As there was no rainfall during last week in the State and mainly dry weather is likely over the State for next three days, apply irrigation to sugarcane and vegetables.
- Maintain 3 – 5 cm water in *kharif* rice field.
- In late transplanted rice crops the incidence of case worm is noticed particularly in low lying areas. For effective control of these insects spraying of Ekalux or Endosulphon or Chlorpyrifos @ 1500 ml per hectare in 400-500 liter of water is recommended.
- Prepare land for sowing of rapeseed, toria and niger. Sow the seeds in lines keeping 30 cm row-to-row spacing. Apply 40:30:20 kg of Nitrogen, Phosphate and Potash per hectare in the field.

Maharashtra

- Rain occurred at a few places in Konkan. Rain also occurred at a few places in South Madhya Maharashtra on 24th October. Mainly dry weather prevailed over rest of the State.
- Mainly dry weather is likely to prevail all over the State.

Advisories

- As there was no significant rain in most of the districts of the State during last few weeks & mainly dry weather is likely to prevail over the State, apply irrigation to sugarcane (Pre-seasonal), sugarcane (*suru*), irrigated cotton, *kharif* cotton and *kharif* tur.
- Maintain 3 – 5 cm water in the rice field wherever the crops in grain formation stage.
- Mild incidence of sap sucking insect, aphids & jassids in Amravati in *kharif* cotton & boll worm in Nagpur, Latur & Aurangabad division in *kharif* cotton and irrigated cotton and leaf roller in Pune, leaf cater pillar & pod borer in Nashik division in *kharif tur* is reported.
- For the control of Sap sucking insects and aphids & jassids in cotton, spray 5% Neem extract or release 10,000 to 15000 larvae of *Cryosoperla carnea* and if infestation exceeds economic threshold level, spray 30 % WSC Diamethoate 1000 ml or 25 % WSC Methyl dimeton 320 ml / ha in 500 liters water.
- For the control of boll worm in cotton implement integrated pests management method. Monitor the crop for same & if exceeds economic threshold level, spray 36 % WSC Monocrotophos 850 ml or 25 % WSC Quinolphos 1000 ml /ha in 500 liters water.

- For the control of leaf roller in *tur*, spray 5 % Neem extract or if infestation exceeds economic threshold level, spray Dimethoate @ 10 ml or 50 % Carbaril water soluble powder @ 40 gm or Monocrotophos @ 15 ml / 10 litres water and spray in 500 liters solution per ha.
- Monitor crop for Leaf cater pillar in *tur* & if exceeds economic threshold level, spray 25 % Quinolphos 1000 ml or 36 % Monocrotophos 700 ml or 25 % Cypermethrin 200 ml/ ha. in 500 liters water.
- Monitor the crop for pod borer in *tur* & if exceeds economic threshold level, first spray 250 diseased larvae of Nuclear poly hydrosis virus followed by 35 EC Endosulphan 1000 ml/ha in 500 liters water 3 times by 15 days interval.
- This is the proper time for sowing of *rabi* Jowar, gram and safflower and planting of potato and onion. Select varieties from Selection-3 for low fertile soil, Maldandi, Mauli, Phule chitra, SPV-86 for Madhya Maharashtra, SPV-669, AKSV-13-R for Vidarbha & PKV-809, SPV-1411 for Marathwada for medium & black soil for *rabi* jowar and Girna for Khandesh, Sharda for Marathwada, Bhima, JLSF-414 for Madhya Maharashtra & AKS-207 for Vidarbha for safflower. For planting of potato select a variety from Kufri Sinduri, Kufri Lavkar & Kufri Jyoti. Select varieties from Vikas, Phule G-12, Vishwas, Vijay, Vishal & Virat for gram and select varieties from Banshi N-59, Sarbati N-8223, N-5749 & Panchwati for non-irrigated & HD-2189, HD-2278, DWR162, MACS-2489, Trimbak, Godavari, Tapovan & Vimal for irrigated wheat.

Madhya Pradesh

- Dry weather prevailed over of the State.
- Mainly dry weather is likely over the State.

Advisories

- As dry weather prevailed during last week and likely to prevail over the State for the next three days, apply irrigation to sugarcane and cotton.
- Undertake intercultural operation in sugarcane to keep the field weed free.
- Continue harvesting soyabean, jowar and rice on bright sunny days.
- Undertake sowing of *rabi* crops like gram and mustard using residual moisture.

Orissa

- Rainfall occurred at isolated places over Orissa on 22nd and 23rd October. Weather has been dry over the State on 24th October.
- Weather will be mainly sunny over the districts of the State.

Advisories

- As there was no significant rainfall over the State during last week except Koraput and Malkanagiri districts and weather is likely to be dry for the next three days, apply irrigation to the standing crops. Postpone irrigation in the above mentioned districts as there was excess rainfall received during last week.
- Monitor rice for bacterial leaf blight, and sheath blight. To manage bacterial leaf blight spray Streptomycin @ 1gm/ 10 litre of water along with 20 gm of Copper Oxychloride and to manage sheath blight spray Validamycin @ 2 ml per litre of water or Hexaconazole @ 1ml/litre of water for the crop in grain formation stage.
- Monitor vegetables for leaf spot and *Epilachna* beetle. To manage leaf spot in vegetable spray Mancozeb M-45 at the rate of 3 gram per litre of water. To control *Epilachna* beetle spray Endosulphan@2ml /l of water.
- Undertake sowing of moong and urd. Select P.D.M.-54, PDM-11, TARM-1 varieties in moong, and T-9, PU-19, PU-30 in urd. Apply 8 Kg N, 16Kg P & 8 Kg K/ha as basal.

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

Punjab

- Weather remained dry during the period.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in most of the districts during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, groundnut and Horticultural crops.
- Continue sowing gram and lentil using improved varieties.
- Continue picking of cotton.
- Complete sowing of toria and gobi sarson. Before sowing of toria apply pre sowing irrigation.
- Monitor the sugarcane crop for shoot borer infestation & if exceeds economic threshold level, for effective control spray Endosulfan 50 EC 600 ml in 600 liter of water/acre.
- Preparation of field and sowing of wheat, carrot, raddish, and brinjal can be done.
- Apply 2nd dose of nitrogen in brinjal, Arbi chilly, lady finger and to cucurbits family if not applied earlier

Haryana

- Weather remained dry during the period.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in most of the districts during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, groundnut and Horticultural crops.
- Toria sowing should be completed with 21.5kg seed of TL-15 or TL-37 with 50 kg P₂O₅. Prefer Super phosphate for application. Before sowing of toria apply pre sowing irrigation.
- Continue picking of cotton.
- Monitor the sugarcane crop for borer infestation & if exceeds economic threshold level, for effective control, spray 600 ml Endosulfan 50 EC in 600 liter of water/acre.
- Preparation of field and sowing of wheat, carrot, raddish, and brinjal can be done.

Rajasthan

- Weather remained dry in all the divisions of the State.
- Mainly dry weather is likely over the State.

Advisories

- As dry weather prevailed during last week and likely to prevail over the State for the next three days, apply irrigation to *Zaide* fodder. Conserve moisture where *khariif* crops are at maturity stage.
- Continue picking of cotton. Picking of cotton may be undertaken in the early morning hours to maintain the quality of kapas.
- Ploughing of fields may be done for moisture conservation if rain occur which is beneficial for sowing of *rabi* crops viz, mustard, taramira and gram.

Uttar Pradesh

- Weather was mainly dry in all divisions of the State.
- Weather will be mainly dry in all divisions of the State.

Advisories

- As there was no rainfall in most of the districts during last week mainly dry weather is likely over U.P for the next three days, apply irrigation to the crops.
- Continue transplanting of winter vegetable crops.
- Monitor the mealy bug in sugarcane, spray the solution of 0.1% Malathion to control mealy bug insect and remove sugarcane with roots and burn them affected with red rod disease and gurdaspur shoot borer.
- Maintain 2.5- 3.0 cm water level in transplanted paddy where the crop is in grain formation stage.
- To overcome malformation disease in mango spray the solution of Naphthalene Acetic Acid, 200 p.p.m or 4ml planofix/9litre in water and mix fertilizer around the stem of mango tree after hoeing.
- Prepare the field and undertake sowing of potato,garlic and pea.
- Continue field preparation and sowing of rai and mustard, gram, pea, masoor and other pulse crops may be started.

Himachal Pradesh

- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall over the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to vegetables crops.
- Drain out water from the field 7-10 days before harvesting of rice. Continue harvesting of crops on bright sunny days. Brownish colour and dry leaves indicate maturity.
- Also continue harvesting of potato and apple. Start harvesting of seed potato. Seed potato must be certified by the certification agency.
- There is mild chance of attack of leaf spot disease in cabbage and cauliflower. If attack crosses economic threshold level, spray Dithane M – 45 to control the disease.
- Prepare land for sowing of wheat. For securing optimum yield, sowing time for timely sown crops of wheat for the State is last week of October to 15th November in low hills and mid hills. 90-100 kg seed / ha is required for timely sown crops.
- Prepare land for sowing of barley. Optimum sowing time of barley is from last week of October to first week of November. The crop should be sown by kera in lines 22 cm apart. 100 kg seeds per hectare are optimum for sowing. Additional 20 to 25 kg seed should be used under rainfed conditions.
- Prepare land for sowing of gram. The optimum time of sowing of gram is second fortnight of October. Gram should be sown by kera in lines 30 cm apart. Seed should be placed at a depth of 10 to 12.5 cm because the shallow sown crop is more liable to be damaged by wilt. 40 to 45 kg seeds per hectare are required for pure crop of C-235 but in case of HPG-17 the seed rate of 80 kg / ha is recommended.
- Prepare land and complete sowing of oil seed crops within this month.

Uttarakhand

- Mainly dry weather prevailed during the period. Sky remained mainly clear to partly cloudy during the period.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane and potato.

- Undertake intercultural operations, to keep the field weed free in potato, sugarcane and in orchards.
- Undertake thinning and weeding to conserve soil moisture in toria/pea.
- Undertake harvesting of mature crops of rice and ginger.

Jammu & Kashmir

- Weather remained mainly dry over J&K divisions.
- Isolated rain / snow is likely over northern parts of the State and mainly dry weather is likely over rest region of the State.

Advisories

- Apply irrigation to vegetable and fruit crops in Kashmir division and to fruit crops in Jammu division as dry weather prevailed during last week and isolated rain/snow is likely over northern parts of the State and mainly dry weather is likely over rest region of the State for the next three days.
- Conserve moisture in rice and maize field. Start harvesting the matured grains on bright sunny days.
- Continue transplanting of cauliflower and knoll-khol with seed rate of 500g and 250 g respectively in Jammu division and sowing of onion in Kashmir division.
- Continue land preparation and sowing of wheat in Kashmir division. Adopt 100 kg/ha seeds for sowing. Apply 40kg N, 60kg P₂O₅ and 40kg K₂O as basal.
- Prepare land for sowing of gobi sarson crop (varieties: GSL-I, DGS-I) and gram (var: C-235, K-468, Gourav and PBG-I) crop in Jammu division in irrigated as well as rainfed areas.
- Continue harvesting matured fruit crops and maize in Jammu division and pea, lentil, chickpea etc. in Kashmir division in bright sunny days.

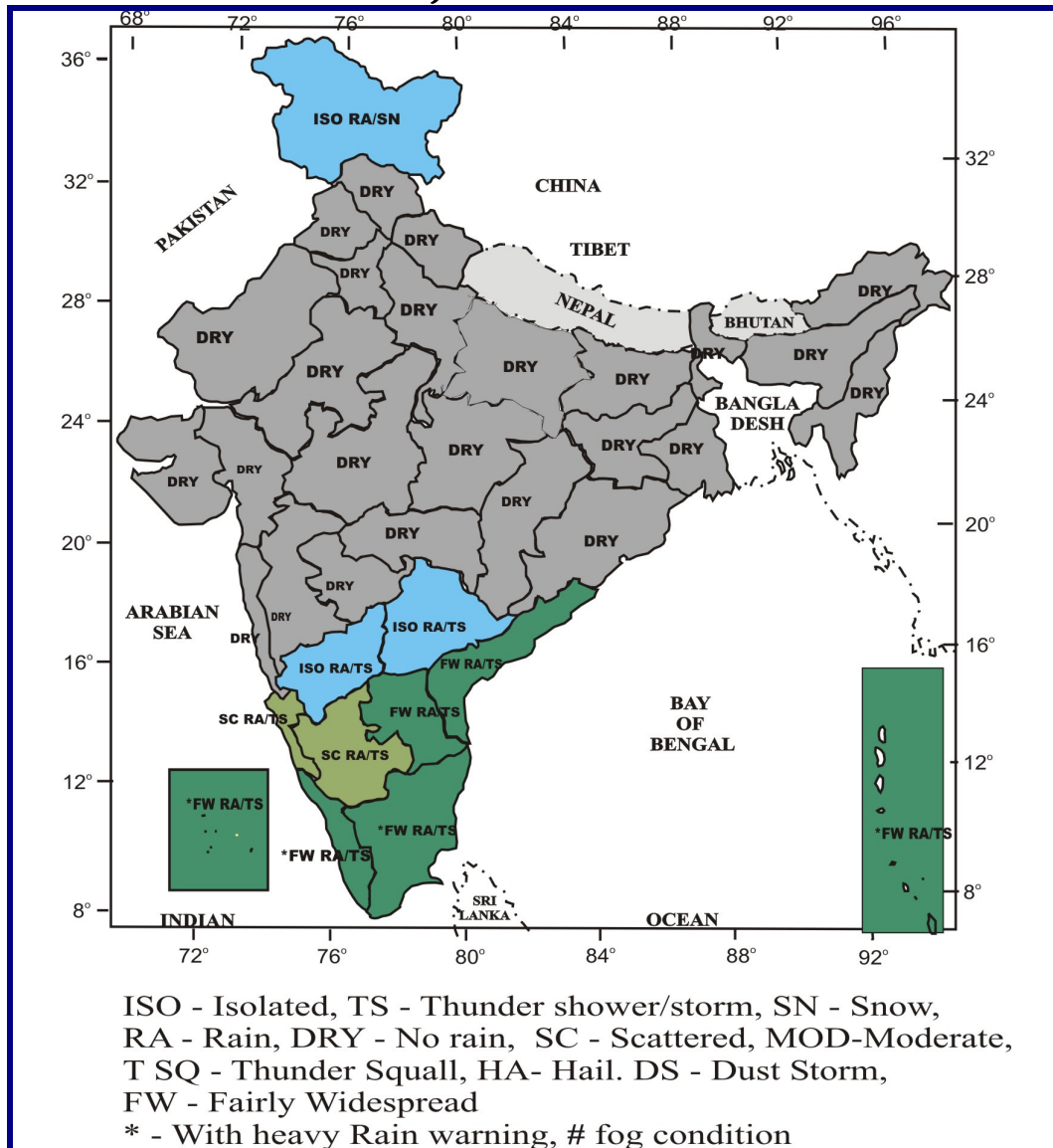
Delhi

- Whether remained mainly dry.
- Mainly dry weather is likely over the State.

Advisories

- As there was no rainfall in the State during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to vegetables.
- Prepare land and undertake transplanting of 5 – 6 weeks old seedlings of cauliflower, tomato and brinjal in the main field.
- Continue sowing varieties like Japani White and White Asikal for raddish, Pusa keshar and Pusa Desi for carrot and Pusa Kanchan for turnip. Treat the seeds with captan or thiram or dithane M-45 @ 2 g / kg of seeds.
- Sow early varieties of potato with seed weight ranging from 25-30 gm. Select varieties from Kufri Badshah, Kufri Bahar and Kufri Chander Mukhi for sowing.
- Prepare field and undertake sowing of mustard. Use varieties like Pusa bold, Pusa Barani, T-59 (Varuna) and Pusa Kalyani etc.
- Continue harvesting of already matured crops of arhar, maize and bajra on bright sunny days.
- Undertake sowing of barseem varieties like Pusa Joint Tetraploid or maskavi. Treat the seeds with Rhizobium culture before sowing. Barley and Mustard seeds may be mixed with Barseem for good first cutting.

*Forecast Map
Valid upto 28th October 07*



Salient weather features for the week ending 24/10/07

METEOROLOGICAL ANALYSIS

- Southwest monsoon withdrew from the remaining parts of the country, Bay of Bengal and Arabian Sea on 22nd October 2007. Simultaneously, the northeast monsoon rains commenced over Tamil Nadu and adjoining states of south peninsula on 22nd October 2007.
- An upper air cyclonic circulation lay over extreme south peninsula in lower tropospheric levels during 18th to 20th October 2007 and became less marked thereafter.
- A trough of low at mean sea level extended from South-West Bay of Bengal to west-central Bay of Bengal off Tamil Nadu –south Andhra Pradesh coast during 21st to 23rd. A low pressure area formed over southwest Bay of Bengal off Tamil Nadu coast and adjoining Sri Lanka on 24th October with a trough extending from the low towards west-central Bay of Bengal off Andhra Pradesh coast.
- An active east-west shear zone passed through extreme south Peninsula extending upto mid-tropospheric level during 22nd to 24th October.
- Another trough of low pressure at mean sea level ran from southeast Arabian Sea to eastcentral Arabian Sea off Kerala and Karnataka coasts during 21st to 24th October 2007.
- An upper air cyclonic circulation in lower tropospheric levels lay over Assam & Meghalaya and neighbourhood on 18th, over east Assam and neighbourhood on 19th and moved away eastwards on

20th. However, an upper air trough in westerlies ran from Sub-Himalayan West Bengal & Sikkim to Gangetic West Bengal on 20th & 21st and became less marked on 22nd.

RAINFALL

Under the influence of the above systems:

- Fairly widespread rainfall occurred over Andaman & Nicobar Islands, south Coastal Andhra Pradesh, Tamil Nadu, Kerala and Lakshadweep during many days of the week. Isolated heavy to very heavy rainfall occurred over these regions on a few days.
- Scattered to fairly widespread rainfall occurred over Rayalaseema, South Interior Karnataka and Coastal Karnataka during many days of the week.
- Scattered rainfall occurred over north Coastal Andhra Pradesh and North Interior Karnataka and isolated rainfall occurred over remaining parts of peninsula, south Konkan & Goa and south Madhya Maharashtra on a few days of the week.
- Isolated to scattered rainfall occurred over northeastern states and coastal areas of Orissa & West Bengal during first half of the week.
- Weather was mainly dry over the remaining parts of the country during the week.

TEMPERATURE

MINIMUM

The minimum temperatures were below normal by 2-4°C over many parts of west, central and east India during many days of the week. They were near normal over many parts of northwest, northeast and peninsular India during many days of the week.

MAXIMUM

Maximum temperatures were above normal by 2-4°C over central India and Maharashtra during many days of the week. They were near normal over remaining parts off the country.

RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 24TH OCTOBER, 2007)

Rainfall was excess/normal in 9, deficient/scanty in 15 and no rain in 12 out of 36 meteorological sub-divisions (Actual: 14.9 mm, Normal: 14.9 mm and Departure: 0 %).

CUMULATIVE SEASONAL RAINFALL (1ST OCTOBER TO 24TH OCTOBER, 2007)

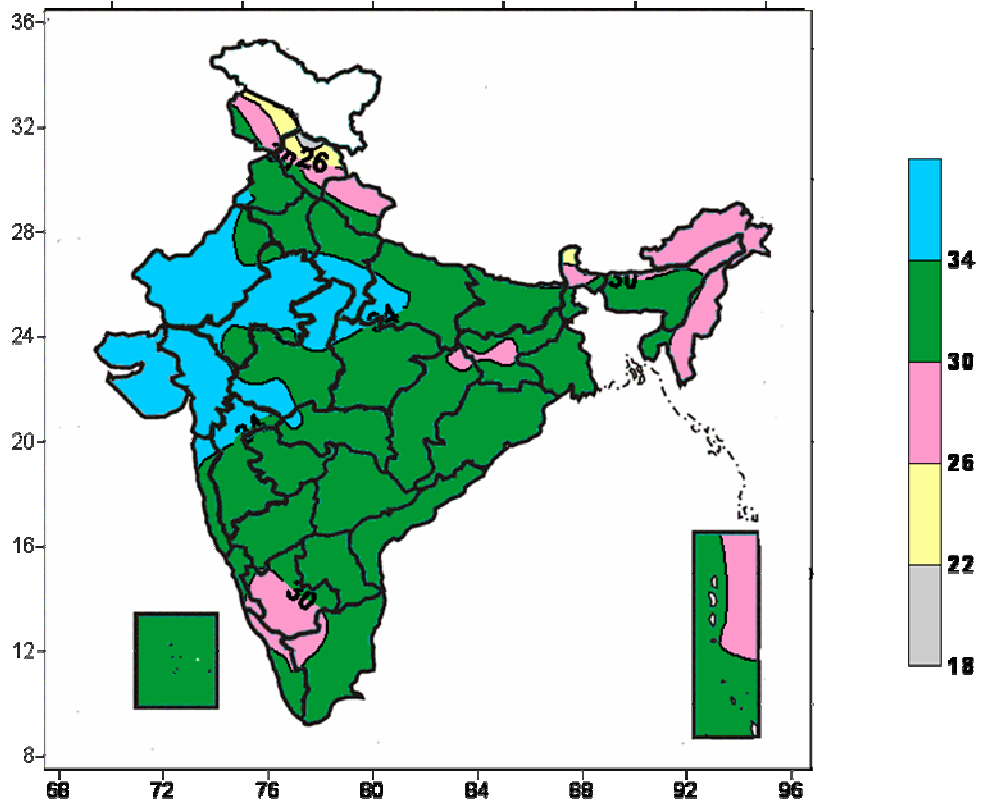
Rainfall was excess/normal in 8 and deficient/scanty in 23 and no rain in 5 out of 36 meteorological sub-divisions. (Actual: 42.8mm, Normal: 68.2 and Departure: -37%).

OUTLOOK FOR THE WEEK ENDING ON 31ST OCTOBER, 2007.

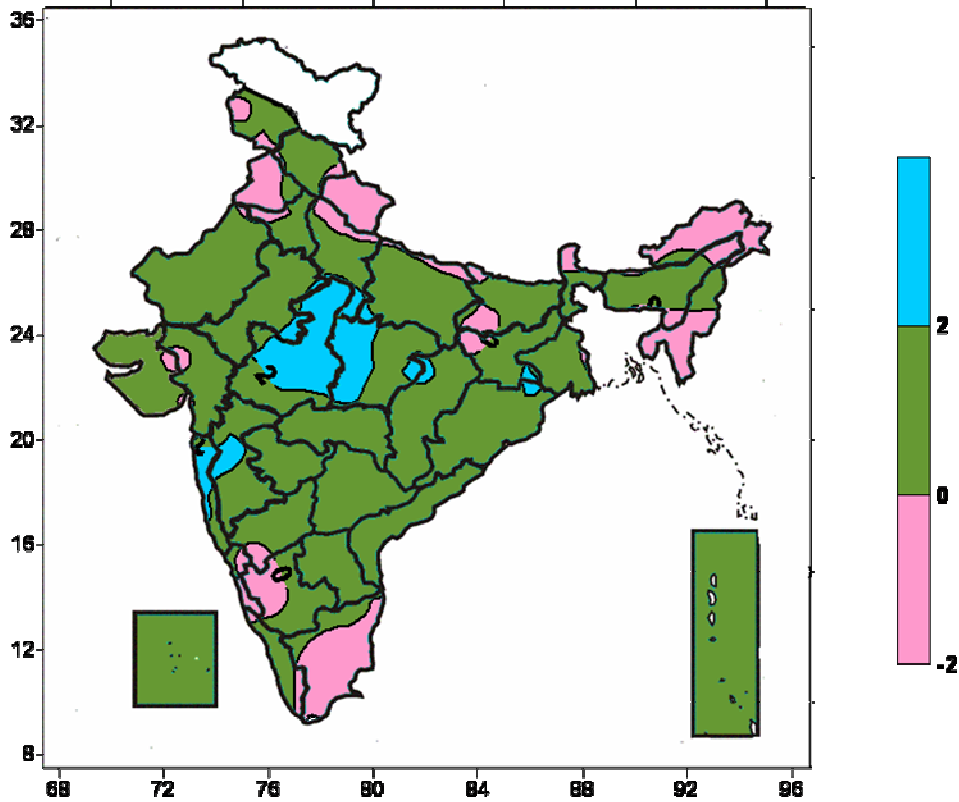
- A low pressure area is likely to form over southeast Bay of Bengal around 27th and intensify further while moving westwards. Under its influence, enhanced rainfall with scattered heavy to very heavy rainfall is likely over Andaman & Nicobar Islands and extreme south peninsula during second half of the week.
- Under the influence of another low pressure area over southeast Arabian Sea which is likely to intensify further, widespread rainfall with isolated/scattered heavy to very heavy falls are likely over Lakshadweep during first half of the week.

Contour maps for the week ending 24th October, 2007

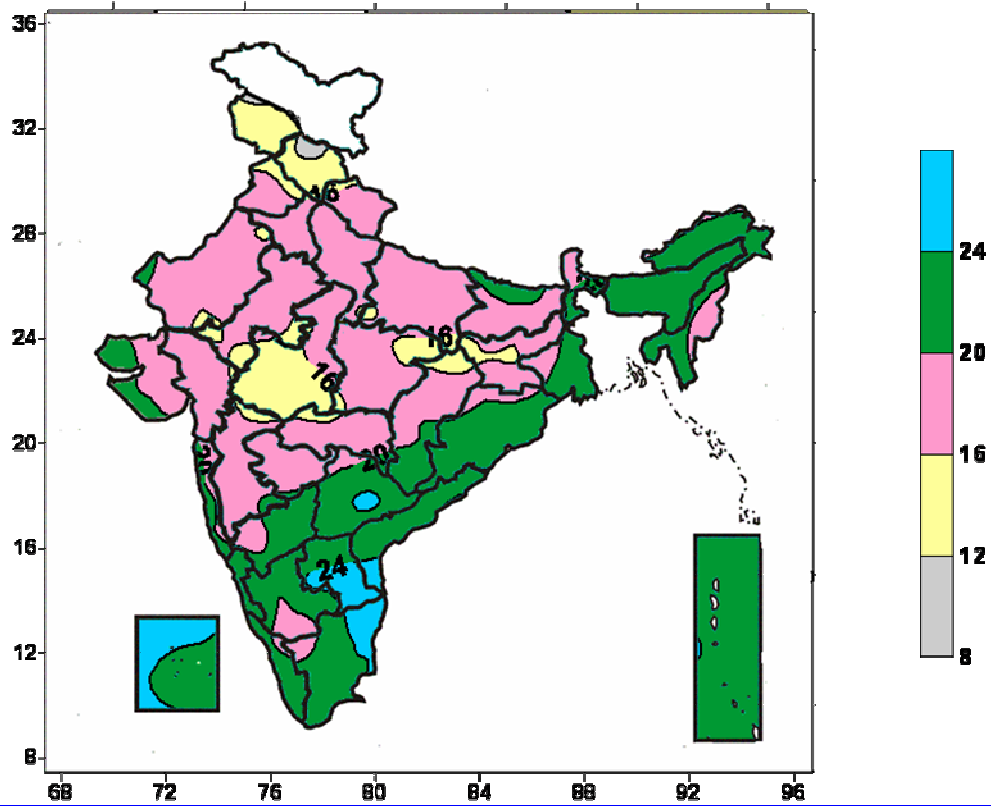
Actual Mean Maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 24.10.07



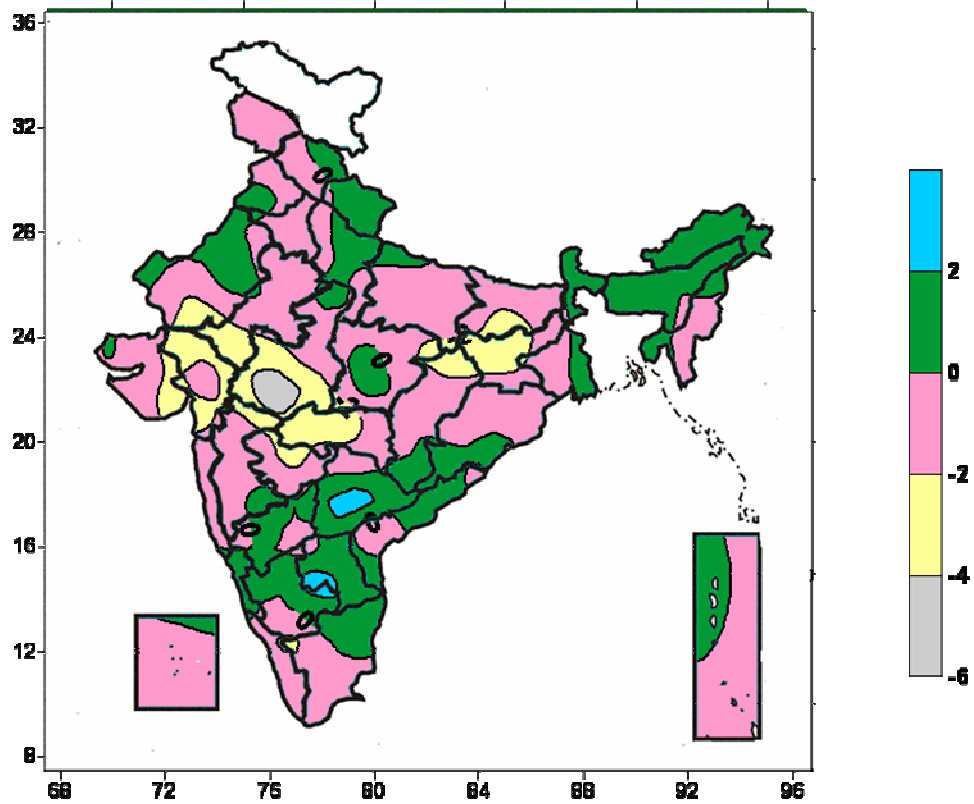
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 24.10.07



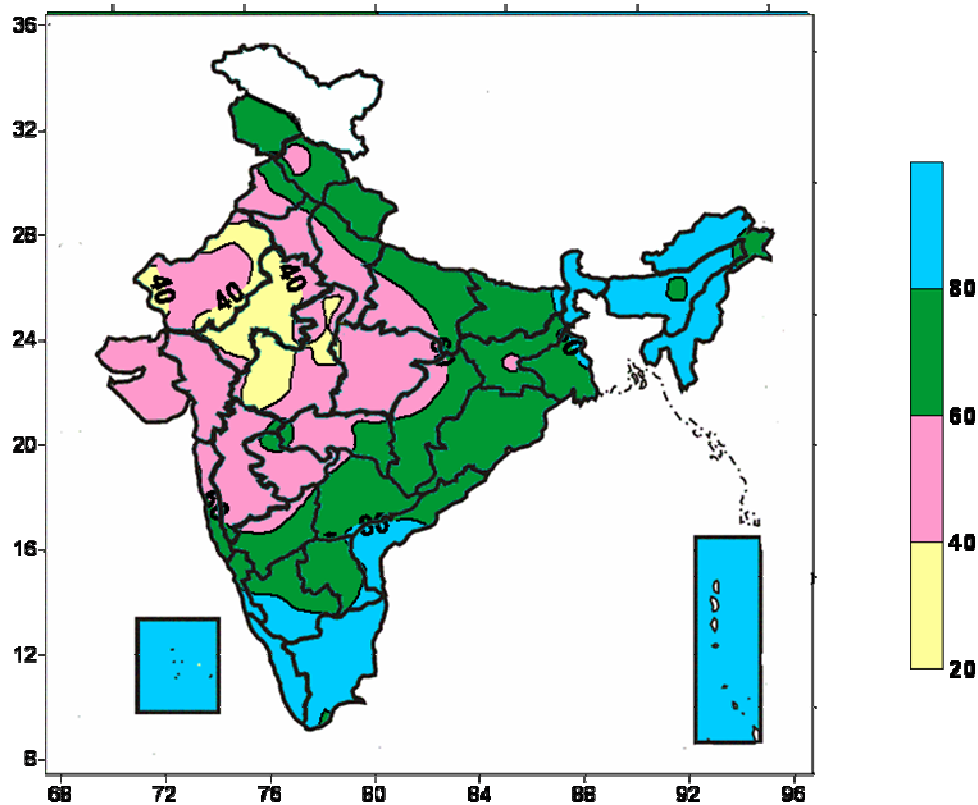
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 24.10.07



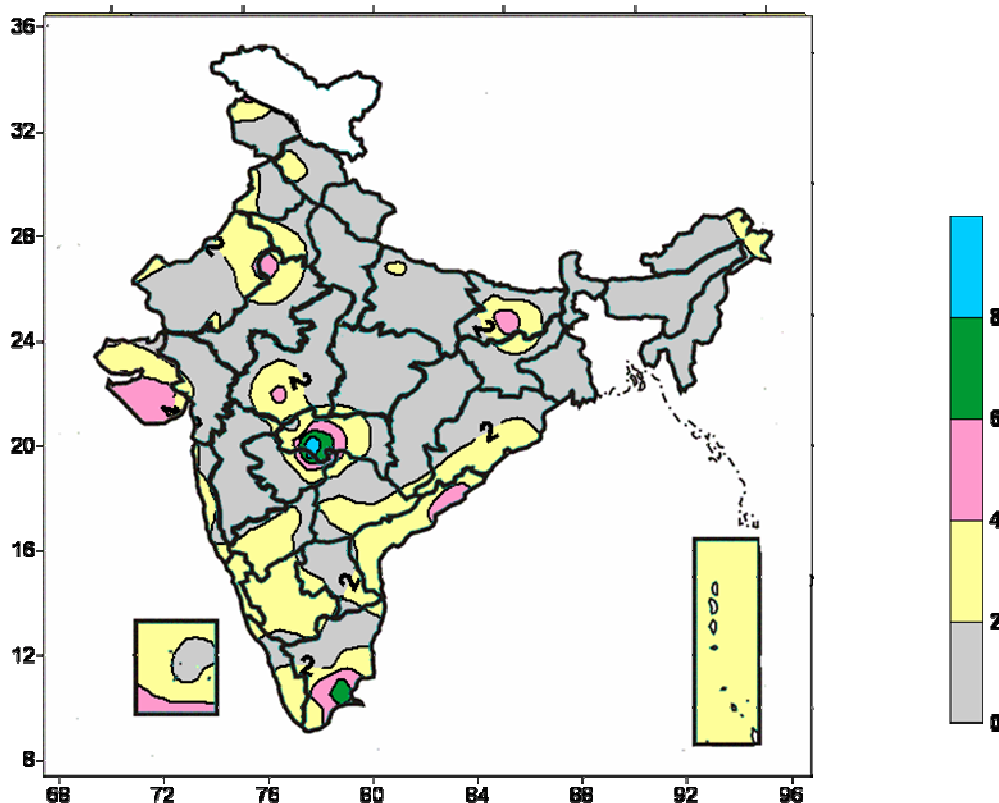
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 24.10.07



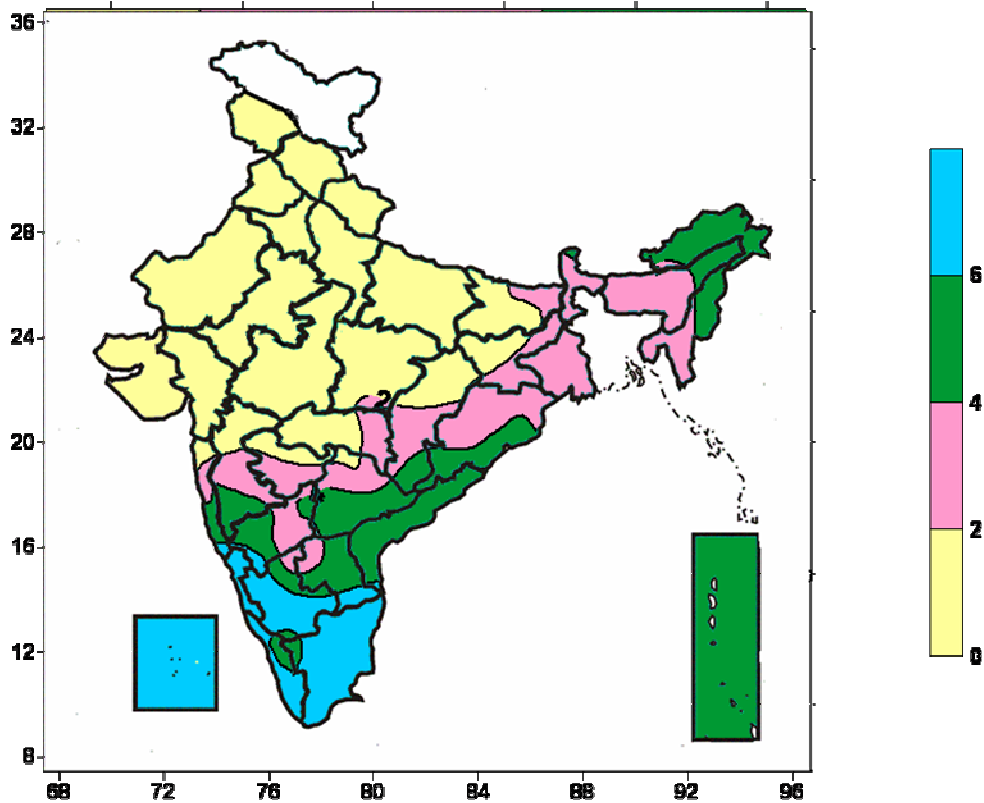
Relative Humidity (%) over India for the week ending 24.10.07



Wind speed (knots) over India for the week ending 24.10.07



Cloud amount (okta) over India for the week ending 24.10.07



Desert Locust Forecasting



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

CROP - STATE - STAGE

Delhi

Vegetables	Early sown vegetables	Rice	Arhar	Maize
Transplanting	Vegetative	Maturity/ Harvesting	Harvesting	Harvesting
Bajra	Mustard	Berseem		
Harvesting	Sowing	Sowing		

Haryana

Sugarcane	Horticultural crops	Rabi Pulses	Cotton	Paddy
Vegetative	Vegetative	Sowing	Picking	Grain harvesting
Kharif Groundnut	Cabbage / pea / garlic / potato	Wheat		
Vegetative	Sowing	Sowing		

Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Apple	Rice	Wheat / Barley / Gram / Oil seeds
Vegetative/ head formation Ladies finger -- Flowering/Fruiting	Maturity / harvesting	Harvesting	Maturity / harvesting	Land preparation & sowing

Jammu & Kashmir

Vegetable crops	Rice	Maize	Pulses / wheat / brown sarsun	Mustard, gobe sarson
Sowing / transplanting	Maturity / harvesting- Jammu div.	Cob maturity / harvesting	Land preparation for sowing in Kashmir div.	Land preparation for sowing in Jammu div.

Punjab

Sugarcane	Horticultural crop	Rabi pulses	Cotton	Paddy
Vegetative	Vegetative	Sowing	Picking	Harvesting
Kharif Groundnut	Wheat	Autumn sugarcane	Cabbage / garlic / pea / potato	
Vegetative	Sowing	Germination	Sowing	

Rajasthan

Zaide Fodder	Cotton	Rabi crops(Mustard, taramira, gram)		
Vegetative	Picking	Sowing		

Uttar Pradesh

Sugarcane	Kharif Vegetables	Rice	Toria	Rabi pulses
Vegetative	Flowering / fruiting / maturity	Grain formation / maturity / harvesting	Early vegetative	Field preparation & sowing
Kharif oilseeds	Winter vegetables	Mango		
Maturity/ harvesting	Sowing	Vegetative		

Uttarakhand

Toria / pea	Ginger	Finger Millet/ Amranthus	Potato	Kharif Rice
Seedling	Rhizome development / maturity	Grain formation / maturity	Tuber growth	Grain formation / maturity
Sugarcane	Mango/Litchi			
Grand growth	Seedling			

Assam

Winter vegetables	Sugarcane	Arhar	Sali rice	Black Gram & Green Gram
Land preparation & sowing	Harvesting	Vegetative	Flowering / grain formation	Vegetative / flowering

Arunachal Pradesh

WRC Rice	Ginger	Millet	Jhum Paddy	Potato
Flowering / grain formation	Rhizome maturity	Grain formation/ maturity	Grain formation / maturity	Planting
Rabi Vegetables	Wheat / Mustard			
Sowing / transplanting	Sowing			

Bihar

Vegetables & fruit crops	Maize fodder	Arhar	Sugarcane	Kharif rice
Sowing	Sowing	Vegetative	Vegetative	Flowering / Grain formation

Jharkhand

Kharif rice	Potato	Vegetables (Tomato, Brinjal, Bhendi)	Upland crops (Maize, arhar, groundnut, soybean, urad, rice and ragi)
Grain formation	Planting	Sowing Early sown – Early vegetative	Harvesting
Pea			
Sowing			

Sikkim

Orange	Vegetables	Large Cardamom	Ginger	Rice
Maturity/ harvesting	Nursery sowing / transplantation	Capsule maturity/ harvesting	Rhizome development / early maturity	Grain formation

West Bengal

Sugarcane	Groundnut	Arhar	Aman rice	Mustard / Rapeseed / Potato
Cane development	Pod maturity	Vegetative	Flowering / grain formation	Land preparation / sowing

Chattisgarh

Sugarcane	Rapeseed, Toria, Niger	Kharif Rice	Tomato, Brinjal, Chilli	
Vegetative	Land preparation & sowing	Grain formation	Vegetative / flowering	

Gujarat

Sugarcane	Kharif Rice	Castor	Kharif Groundnut	Kharif Cotton
Cane development / early maturity	Milking / dough / maturity	Spike formation	Pod maturity / harvesting	Boll formation/ boll maturity / picking
Mustard / wheat				
Land preparation & Sowing				

Maharashtra

Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marthwada and Vidarbha)	Irrigated cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Rice (Konkan)	Kharif Rice (Madhya Maharashtra, Marathwada & Vidarbha)
Active growth / elongation	Active growth / elongation	Boll formation/ boll maturity / picking	Grain formation / grain maturity / harvesting	Grain formation / grain maturity
Kharif Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi potato	Kharif Groundnut (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi safflower
Grain maturity / harvesting	planting	Pod maturity / harvesting	Seed maturity / harvesting	Sowing.
Kharif Cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Tur (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Soyabean (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi Jowar	Early sown jowar
Boll formation / maturity	Flowering / pod formation	Pod maturity / harvesting	Sowing	Germination
Rabi Safflower	Early sown safflower	Rabi onion / gram	Early planted potato	Wheat
Sowing	Germination	planting	sprouting	Sowing

Madhya Pradesh

Sugarcane	Kharif crops (maize, urd and jowar)	Kharif rice	Soyabean	Cotton
Grand growth	Grain maturity stage	Grain maturity	Harvesting stage	Boll formation

Orissa

Kharif vegetables	Kharif rice	Sugarcane	Arhar	
Vegetative / fruiting	Grain formation / maturity	Vegetative	Vegetative	

Andhra Pradesh

Kharif Rice	Kharif Cotton	Kharif Groundnut		
Grain formation / development	Boll formation / development / picking	Pod formation		

Karnataka

Sugarcane (Ratoon crop)	Kharif Sunflower	Groundnut	Kharif maize & Jowar	Cotton
Grand growth	Grain development / maturity	Pod development / maturity	Grain development / maturity / harvesting	Boll maturity / picking
Rabi Jowar/Maize/Cotton/Sunflower				
Early vegetative / vegetative				

Kerala

Rubber	Mundakkan Rice			
Tapping	Tillering			

Tamil Nadu

Rice (<i>Samba</i>)	Sugarcane (Early, Mid and Late season)	Maize	Groundnut/Black gram/Green gram/Red gram	Cotton
Vegetative	Grand growth Late Sugarcane- Harvesting	Early flowering	Sowing	Picking
Jowar/Bajra/Samai	Special season sugarcane	Early sown jowar / bajra / samai	Early sown Groundnut/Black gram/Green gram/Red gram	
Sowing	Planting	Early vegetative	Early vegetative	
