



Summary of Agromet Advisory Services for different States of the country

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(For the period 14th to 18th February, 2008)

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

Agromet Advisory

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

Punjab

- Weather remained mainly dry during the period. Cold to severe cold prevailed in many parts of the State.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 24 hours and abate thereafter.

Advisories

- Mainly dry weather is likely over the State for next three days. Cold wave conditions are also likely over the State. Under these circumstances, apply light and frequent irrigation to the standing crop.
- 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.
- Late blight of potato has been observed in pockets. If required, spray Ridomil MZ or Curzate @ 700 g per acre in 250 -350 liter of water.
- Continue sowing of short duration sunflower hybrids. Apply 15 kg Nitrogen/ha.
- Prepare field for sowing of spring sugarcane crop as delayed sowing may affect yield.

Haryana

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

Advisories

- As mainly dry weather is likely over the state, apply irrigation to sugarcane, *rabi* oilseeds, pulses, wheat and Horticultural crops.
- Monitor the sugarcane crop for shoot borer infestation & if exceeds economic threshold level, for effective control, spray 600 ml Endosulfan 50 EC in 600 liter of water/acre.
- Continue sowing of short duration sunflower hybrids. Apply 15 kg Nitrogen/ha.
- Prepare field for sowing of spring sugarcane crop as delayed sowing may affect yield.

Rajasthan

- Weather remained mainly dry in all divisions of the State. Cold wave conditions prevailed over some parts of the State.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 24 hours and abate thereafter.

Advisories

- Apply irrigation and arrange for smoking in *rabi* crops viz., wheat, potato, mustard, barley, taramira and gram to prevent the crops from cold injury/frost due to fall in temperature.

- Monitor gram for pod borer and undertake plant protection measures if the pest population crosses ETL.

Uttar Pradesh

- Cold wave conditions prevailed over some parts of the State and weather was mainly dry in all divisions of the State on 11th and 12th February. Cold wave conditions prevailed over most parts of the State with severe cold wave over some parts of west UP and weather was mainly dry in all divisions of the State on 13th February.
- Mainly dry weather is likely over the State. Cold waves are likely over East UP during next 48 hours and abate thereafter.

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 light and frequent irrigation to save wheat, vegetable, pulses, rai, and mustard crops from cold injury/ ground frost particularly in east UP.
- Prepare the field and undertake transplanting of onion.
- Spray the solution of Dimethoate 1.5 ml/litre of water to control stemborer in turmeric.
- Harvest the matured toria, sugarcane, winter vegetables and potato.

Himachal Pradesh

- Precipitation occurred at many places in the State.
- Mainly dry weather is likely over the State.

Advisories

- As there was rain during last week in most of the districts of the State, postpone irrigation to the crops.
- Arrange for smoking to save the crops from ground frost and cold injury.
- Apply second dose of CAN @ 13 kg per Bigha or Urea @ 6.5 Kg per Bigha to cauliflower and cabbage.
- 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.
- Monitor oilseeds for aphids and if 50 aphids or 4 mm aphid infestation level per central shoot is noticed, spray 750 ml cypermethrin 10 EC or 750 ml methyl demeton 25 EC or 750 ml Dimethoate 30 EC or 1.5 litre Formothion 25 EC or 200-250 ml Phosphamidon in 750 L water / ha.
- Continue the pruning/trimming of the apple plants in the presence of experts. The cut-end of the branches more than pencil thickness should not be allowed to remain naked but have to be covered with Bordeaux paint or copper oxy chloride paint. The twigs/branches infected with diseases like canker may be pruned at least two- three inches beyond the infected portion and burned it at the earliest. Prepare the beds properly. Apply recommended dose of FYM/Potash and super phosphate in the beds.

Uttarakhand

- Very light rain occurred at a few places on 8th February, while mainly dry weather prevailed during rest of the week.
- Mainly dry weather is likely over the State.

Advisories

- Due to low minimum temperature, farmers are advised to arrange for smoking in the field and orchards to prevent the young crops from cold injury.
- As there was no significant rainfall during last few weeks and mainly dry weather is likely over the State during next 48 hours, apply light irrigation to wheat. This will also protect the crops from cold injury.

- Monitor mango for mealy bug. Undertake deep plough around the tree trunk and wrap 25 cm wide, 400 gauge polythene around the trunk to prevent mealy bugs attack.
- Undertake intercultural operations in orchards to keep the field weed free.
- Undertake harvesting of matured sugarcane.
- Harvest the matured crops of potato.

Jammu & Kashmir

- Weather remained mainly dry over J&K divisions.
- Isolated rain/snow is likely over Jammu & Kashmir. Cold wave conditions are likely over Jammu division of Jammu & Kashmir during next 24 hours and abate thereafter.

Advisories

- Due to low minimum temperature, farmers are advised to arrange for smoking in the field to prevent the crops from cold injury.
- Monitor tomato, brinjal, cabbage and cauliflower for virus infection. Rough out virus affected plants and destroy completely.
- Monitor mustard for collar rot and peas for wilt and root rot. Rouge out and destroy the affected plants to prevent further spread.
- Monitor potato for late blight and rouge out the affected plants and destroy to prevent further spread.
- Transplanting of tomato may be done in Jammu division.
- Weather is congenial for the thrips in onion crop, if required spray the crop with Phosphamidon @ 0.03% or Carbaryl @ 0.01% on clear sky days.

Delhi

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

Advisories

- As there was no significant rainfall in the State during last few weeks and no rain is likely to occur over the State for the next three days, apply irrigation to vegetables, mustard, gram, barley and wheat.
- Continue sowing of pumpkin.
- There is mild chance of attack of purple bleach disease in onion. If infestation crosses economic threshold level, apply dithane M-45 or dithane Z-78 @ 2 kg / ha.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

- Rain / thundershowers occurred at many places in the State on 13th February, at a few places on 12th February and at isolated places on 11th February.
- Isolated rain/thundershowers are likely over the State.

Advisories

- As there was significant rainfall during last week and rain/thundershowers are likely at isolated places over the State during next three days, postpone irrigation to plantation crops viz., coconut, arecanut, rubber and banana.
- Attack of leaf caterpillar is reported in coconut. As a prophylactic measure affected leaves may be cut and burnt. To control this pest biologically, release larval and pupal parasitoids.
- Attack of pseudo stem weevil, banana rhizome weevil and bunchy top disease is reported in banana. Adopt strict field sanitation. If the attack is severe spray Quinalphos @ 0.05%. Spraying / drenching may be done on the leaf axils, rhizome, surrounding soil and all around

the entire pseudo stem. Apply 12.5 gm. Phorate 10G or 10 gm. Carbofuran 3G per plant in leaf axil or 25 gm Phorate or 20 gm. Carbofuran per pit in soil, 70 days and again 165 days after planting to control bunchy top disease.

- Complete harvesting of pepper.
- Continue nursery sowing, intercultural operations and application of fertilizers.
- Attack of leaf folder, brown plant hopper and stem borer is reported in early transplanted *puncha* rice. Spray Monocrotophos @ 1.5 ml.litre of water to control the pests. Water may be drained from field until the pest population decline in areas where water is available in plenty.
- Spraying, weeding, intercultural operations may be done on a non rainy day.

Tamilnadu

- Rainfall occurred at a few places over the State on 12th February and at one or two places over the State on 11th, 13th February 2008.
- Isolated rain/thundershowers are likely over the State.

Advisories

- Monitor rice for bacterial leaf blight (BLB) and blast in the current samba and Thaladi rice crops. To control the diseases spray Carbendazim @ 100g or Ediphenphos @ 200 ml or Tricyclozole @ 200g by mixing with 200litre of water using the hand sprayer.
- Monitor sugarcane for shoot borer and if the pest population crosses ETL, undertake spraying of Endosulfan 35 EC or Monocrotophos 40 EC @ 1.5 litres/ha. Release parasite @ 1 cc per time for stem borers after 15 days of spraying. Release parasite @ 1 cc per time for the control of stem borers.
- Continue picking of matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.
- Undertake intercultural operations in the standing crops on a non rainy day to keep the field weed free.

Karnataka

- On 11th February, rainfall occurred at isolated places over the State. On 12th February, rainfall occurred at a few places over South interior Karnataka and at isolated places over Coastal Karnataka and North interior Karnataka. On 13th February, rainfall occurred at many places over South interior Karnataka, at a few places over Coastal Karnataka and at isolated places over North interior Karnataka.
- Isolated rain / thundershowers are likely over the State.

Advisories

- As dry condition prevailed over Bagalkote, Belgaum, Bijapur, Gadag and Dharwad during last week and isolated rain/thundershowers are likely over the States for the next three days, apply irrigation to sugarcane, *rabi* jowar, maize, cotton and sunflower grown in the above mentioned districts.
- Undertake intercultural operations in sugarcane to keep the field weed free and propping to prevent the crop from lodging.
- Monitor *rabi* sunflower for powdery mildew and undertake spraying of Wettable Sulphur @ 3 g/litre of water, if required.
- Spray NAA @ 40 ppm to enhance boll setting in cotton.
- This is the proper time for sowing of summer rice in nursery. Prepare field and undertake nursery sowing of summer rice.
- Undertake sowing of maize, groundnut and sunflower.

Andhra Pradesh

- Rain occurred at most places over Coastal Andhra Pradesh 10th February, at many places over Coastal Andhra Pradesh from 11th to 13th February and over Telengana on 13th February, at a few places over Coastal Andhra Pradesh on 9th, 12th February and over Telengana on 10th, 12th February. Isolated rain occurred over Telengana on 11th February and over Rayalaseema on 09th, 10th, 12th & 13th February. Mainly dry weather prevailed over Telangana on 7th February and Dry weather prevailed elsewhere over the State during the period.
- Isolated rain/thundershowers are likely over the State.

Advisories

- As there was significant rainfall during last week and isolated rain/thundershowers over Andhra Pradesh for next three days, postpone irrigation to red gram, groundnut, black gram and chillies.
- Prevailing weather conditions are congenial for incidence of blast in rice. Monitor the crop and spray Tricyclazole @ 0.6 g per litre of water as soon as the disease symptoms are noticed. To prevent the incidence of paddy stem borer in nursery apply Carbofuran @ 160 g per cent of nursery.
- Monitor black gram for *Maruca* pod borer and if the pest population crosses ETL, spray Dichlorvas @ 1 ml + Lamda Cyhalothrin @ 2 ml or Dichlorvas 1 ml + Chlorpyrifos @ 2.5 ml per litre of water.
- Monitor black gram for yellow vein mosaic and to control the vector to prevent further spread of the disease, spray Monocrotophos @ 1.6 ml/litre of water or Dimethoate @ 2 ml/litre of water. To control incidence of leaf spot in Guntur district, spray Mancozeb @ 2.5 g or Copper Oxy Chloride @ 3g per litre of water twice at 10 days interval.
- To control incidence of thrips in groundnut spray Monocrotophos @ 1.6 ml or Dimethoate @ 2ml per litre of water if the crop is between 15-40 days. As the prevailing conditions are congenial for the incidence of rust and late leaf spot in 70-80 days old crop and if noticed spray Mancozeb 2.0gm or Hexaconazole @ 2ml per litre of water.

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

Assam

- Light to moderate rain occurred on 11th and 13th February and light rain on 12th February at isolated places over the State during the period.
- Isolated rain/thundershowers are likely over the State.

Advisories

- As there was no significant rain during last week in most of the district of the State and only isolated rain / thundershower is likely to occur over the State for next three days, apply irrigation to arhar, winter vegetables, potato, other *rabi* crops and wheat.
- Maintain 3 – 5 cm of water in *boro* rice field at tillering stage.
- Incidence of aphids and saw fly was noticed in mustard and rapeseed in few localities. Monitor mustard and rapeseed for aphids and saw fly and if the population exceeds economic threshold level, apply rogor or Malathion @ 2 ml / litre of water to control the disease.
- For control of late blight of tomato and potato, spray dithane M-45 @ 2.5 g per litre of water / bavistin @ 1 g per litre of water should be sprayed.
- For control of leaf blight and leaf spot diseases of wheat, Dithane Z-78 @2.5 gm per litre of water may be sprayed.
- Monitor *boro* rice for blast disease. As soon as one or two spots on leaves are seen, Hinosan 50 EC @ 1 ml or Blitox 4 g per litre of water is to be sprayed and spraying is to be continued till the disease is controlled. For control of Sheath blight disease apply bavistin @ 1gm per litre of water.

Arunachal Pradesh

- Sky remained cloudy to partly cloudy during the period.
- Isolated rain/thundershowers are likely over the State.

Advisories

- Except East Kameng and East Siang districts there was no significant rainfall in the State during last week and rain/thundershowers at isolated places are likely over the State during next three days. Under this circumstance apply irrigation to vegetables, wheat, *rabi* maize and mustard to the crop except above mentioned districts.
- Harvest the matured crops of pea, ginger, vegetables and potato.
- Undertake weeding and hoeing in wheat, mustard and *rabi* maize on a non rainy day to keep the field weed free.

Bihar

- Light rain occurred at many places on 8th & 9th February. Weather was mainly dry on rest of the days.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 48 hours and abate thereafter.

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 vegetables, arhar, wheat, gram, fodder maize and sugarcane. This will also save the crop from cold injury.
- Monitor potato for late blight disease, if the symptoms are noticed, spray Ridomil MZ @ 2 kg/ha as first spray.
- Monitor rai / sarsoon crop for aphid attack. To control aphids, spray Methyl demeton 25 EC or Quinlphos 25 EC @ 1 liter/ha.
- Monitor the gram crop for pod borer, to control the pest spray Endosulphan @ 1.5 lit/ha.
- In wheat crop sown under the irrigated late / very late situation, if top dressing of nitrogen was not done then apply @ 40 kg/ha after weeding.

Jharkhand

- Cold wave condition prevailed at many places.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 48 hours and abate thereafter.

Advisories

- Apply irrigation to the vegetables, wheat, mustard and gram as there was no significant rainfall during last week and mainly dry conditions are likely over Jharkhand during next three days.
- Hoeing and weeding, top dressing with 55kg Urea per hectare and irrigation may be done in wheat.
- Prepare field and undertake sowing of summer rice in nursery.

Sikkim

- There was no rainfall during the period over East Sikkim.
- Isolated rain/thundershowers are likely over the State. Cold wave conditions are likely over the region during next 48 hours and abate thereafter.

Advisories

- As there was no significant rainfall during last few weeks and isolated rain/thundershowers are likely over the State for the next three days, apply irrigation to *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root and early sown wheat and mustard.
- Arrange smoking around the crop to save the crop from cold injury.

- Keep mustard fields free from Satyanashi weed and wheat fields free from Hirankhuri weed.
- Monitor large cardamom for Chirkey and Foorkey and infected plants may be destroyed by uprooting/burial at regular intervals. Regular inspection may be carried out to observe caterpillar/ shoot borer incidence, if any and may be hand picked and destroyed mechanically.
- Monitor orange for trunk borer and remove the affected portion and pluck the holes made by the insect with mud.
- Continue harvesting vegetable crops depending upon market demand.

West Bengal

- Weather remained mainly dry from 11th to 13th February over the districts of the State.
- Isolated rain/thundershowers are likely over Sub-Himalayan West Bengal. Mainly dry weather is likely over Gangetic West Bengal. Cold wave conditions are likely over the State during next 48 hours and abate thereafter.

Advisories

- As there was no significant rainfall during last week in most of the districts of the State and no significant rain is likely to occur during next three days, apply irrigation to the crops.
- This is the time for transplanting of *boro* rice. Prepare land and transplant 2 – 3 plants per hill in rice field. Apply N @ 50 kg P₂O₅ @ 50 kg and K₂O @ 50 kg per ha at the time of land preparation. Maintain 2 – 3 cm water in the rice field after 2 -3 days of transplanting. Apply 25 kg N / ha at 3 weeks after transplanting of rice under weed free condition and thin film of water. Maintain 3 – 5 cm of water after 48 hours of application of N.
- Generally, Zinc deficiency symptom may appear in some districts of South Bengal & most of the dist. of North Bengal in wheat Crop. So apply Zinc Sulphate @ 25Kg / ha after every 3 years interval. Also to check Boron deficiency, spray Borax / Sohaga @ 5 g / litre of water in the standing crops.
- Harvest already matured crops of sugarcane and arhar.
- Brown rust disease may appear in wheat. Spray Carboxyl or Oxycarboxyl @ 1gm / litre of water at 7-10 days intervals for 2-3 times if brown coloured rust is observed on the surface of the leaves.
- Keep vigil against late blight disease of potato. Uproot and burn the affected plants. Apply water soluble Mancozeb @ 2.5 g / litre of water in the remaining healthy plants. Uproot or rogue out the wrinkle leaf affected plants. As white fly is responsible for the spreading of the disease, spray dimethoate @ 2 ml / litre of water to control the insect.
- Keep vigilance against occurrence of blast disease in *boro* rice. If this disease appears at least one leaf or 25% of the leaves of the plant, then spray water soluble Ediphenphos 50% @ 1 ml or Triamiphos 48% @ 1 ml or Carbendazyme 50% @ 1 gm or Tricyclogol 75% @ 0.5 ml per litre of water. 750 litre of water is required for spraying 1 hectare of land. Keep vigilance against attack of stem borer .Chemicals may be applied under attack of at least 1 larvae or matured pest per hill.

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

Gujarat

- Severe cold wave conditions prevailed in parts of Coastal Saurashtra, Kutch & cold wave conditions prevailed over remaining region on 11th February. Severe cold wave conditions prevailed in parts of Kutch & cold wave conditions prevailed in parts of North Gujarat region, Saurashtra on 12th February. Cold wave conditions prevailed in parts of Kutch & North Gujarat region on 13th February.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 24 hours and abate thereafter.

Advisories

- As there was no rain during last few weeks over the State and mainly dry weather is likely to prevail over the State for next three days, apply light and frequent irrigation to *kharif* cotton, castor, mustard and wheat. Also arrange for smoking around the field. This will save the crops from cold injury.
- Stop irrigation 10 – 15 days before harvesting of sugarcane. Continue harvesting the crop when brix reading of sugarcane will be 19 or more.
- Monitor for pest and diseases in cotton. If population of sucking pests like aphids, jassids, thrips in *kharif* cotton crosses economic threshold level, spray methyle dematon 25% EC @ 10 ml or phosphamidon 85% EC @ 5 ml or dimethioate 30% @ 10 ml in 10 litre of water.
- Monitor mustard for pests like aphids, mustard saw fly, jassids etc. If insect population exceeds economic threshold level, to control aphids spray pesticides phosphamidon @ 4 ml or dimethoate @ 1 ml or monocrotophos @ 12.5 ml in 10 litres water as per requirement. Second spraying at 10 to 15 days after first spray if required or dust the methyl parathion 2% powder or Quinalphos 1.5 % 25 kg/ha.
- Prepare land and transplant seedlings of summer rice in the main field with assured irrigation facilities. Apply 60 kg N / ha before transplanting at the time of puddling of soil. Transplant 2 -3 seedlings / hill.
- Prepare land for sowing of summer groundnut with assured irrigation facilities. Apply 25 kg N and 50 kg P₂O₅ and K₂O each at the time of land preparation. Select high yielding varieties from J-11, GG – 2, 4, 6, TG – 26 etc. for sowing.

Chhattisgarh

- Cold wave conditions prevailed in Bilaspur division, rainfall occurred at isolated places in Baster division on 13th February and mainly dry weather prevailed in rest divisions of the State.
- Mainly dry weather is likely over the region. Cold wave conditions are likely over the state during next 48 hours and abate thereafter.

Advisories

- As there was no significant rainfall during last week in most of the districts of the State and mainly dry weather is likely for next three days, apply light and frequent irrigation to sugarcane, toria, vegetables, rapeseed and mustard and wheat, potato and other *rabi* crops. This also saves the crop from cold injury.
- Aphids are observed in mustard, safflower and vegetable crops, hence, it is advised to monitor the crops and if necessary spray Endosulphon or Matasystox @ 2 ml/liter of water.
- There is mild chance of attack of jhulsa disease in tomato and potato. If infestation crosses economic threshold level, apply metalaxyl @ 2 g / litre of water.
- There is mild chance of attack of powdery mildew disease in green peas and gram. If infestation crosses economic threshold level, apply carathene @ 1 g / litre of water.
- Prepare land and complete transplanting of summer rice with assured irrigation facilities.
- Prepare land and start sowing of summer groundnut and sunflower with assured irrigation facilities. Before sowing, seeds should be treated with thirum @ 3 g or bavistin @ 2g / kg of seeds. Seeds of groundnut should also be treated with rizobium culture @ 5 g / kg seeds.

Maharashtra

- Mainly dry weather prevailed over the State.
- Isolated rain/thundershowers are likely over South Madhya Maharashtra. Mainly dry weather is likely over rest region of the State.

Advisories

- As there was no significant rainfall in the State during last few weeks and no significant rain is likely to occur over the State for the next three days, apply irrigation to sugarcane (Pre-seasonal), sugarcane (*suru*), *rabi* jowar, safflower, potato, gram, onion, wheat and maize.

- Harvest already matured crops of *kharif* tur.
- Undertake weeding operation in potato to keep the crop weed free and also carry out earthing up. Second dose of 50 kg Nitrogen / ha may be applied as top dressing after weeding.
- Second dose of 50 kg Nitrogen / ha may be applied after 30 days from planting of onion & irrigation may be given immediately.
- Mild incidence of white woolly aphids in Ahmednagar and Pune districts in Sugarcane (pre-seasonal) & sugarcane (*Suru*), aphids in Pune division, aphids and stem borer in Nasik and Latur divisions & shoot fly in Aurangabad and Latur divisions in *rabi* jowar, aphids in Latur & Kolhapur division in safflower, pod borer in Nasik, Pune, Kolhapur, Latur, Amravati division in gram and aphids and jassids in Nasik and Pune division in wheat is reported.
- Monitor the Sugarcane (pre-seasonal) & sugarcane (*Suru*) for White Woolly Aphids & if exceeds economic threshold level, for effective control spray 500 ml Endosulphan 35%+ Metasystox 1000 ml & 500 ml Sticker or 500 gm detergent powder / ha in 500 liters of water. For the biological control of White Woolly Aphids, release 25000 larvae of *Chrysoperla carnea* or *Dipha aphidivora* / ha as predator after 15 days from the above dose.
- For the control of aphids in *rabi* jowar, spray 5% neem seed extract or 30% Dimethoate 10 ml + 10 ml sticker per 10 liter of water or Nuvacron 36WSC 300 ml/ha in 500 litres of water or release 10000-15000 larvae of *Chrysoperla carnea* / ha. To control stem borer & aphids in Latur and Nasik and shoot fly in Aurangabad and Latur divisions, spray 5% neem seed extract or 35% Endosulphan 14 ml or 30% Dimethoate 10 ml + 10 ml sticker per 10 liter of water.
- For the biological control of aphids in safflower, release 10000-15000 larvae of *Chrysoperla carnea* or apply 5% neem extract.
- Monitor gram for pod borer & if exceeds economic threshold level, to control the pod borer 5 pheromone traps/ha may be kept in the field or spray 5% neem seed extract or spray 1000 ml Endosulphan 35 EC or 35 EC Quinolphos 1000 ml in 500 litre of water/ha.
- Spray 15 ml Endosulphan or Malathion in 10 litre of water to control the aphids and jassids in wheat.
- For the protection of blossom and to control the infestation of downy mildew / hoppers in mango, apply mixture of 300 mesh sulphur and 1.5% quinolphos powder in the ratio of 1:1 or spray 50% carbaryl powder @ 20 g plus 80% water soluble sulphur @ 25 gm. 2-3 sprayings may be done at 15 days interval.

Madhya Pradesh

- Rainfall occurred at a few places in East M.P on 8th February and at isolated places in South East M.P. on 7th and 9th February and dry weather prevailed over rest of the State for the remaining period.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 48 hours and abate thereafter.

Advisories

- As mainly dry weather is likely over the State, apply irrigation to sugarcane, gram, and wheat. This will also save the crop from cold injury.
- Undertake intercultural operation in sugarcane and other *rabi* crops to keep the field weed free.
- Undertake weeding in wheat. Spray 2, 4-D for broad leaved weeds and Isoproturan for monocot weeds. Broadcast urea @ 50 kg/ha as top dressing.
- Monitor gram for leaf eating caterpillar and if the pest population crosses ETL, spray Endosulphan @ 1.5 litre/ha.

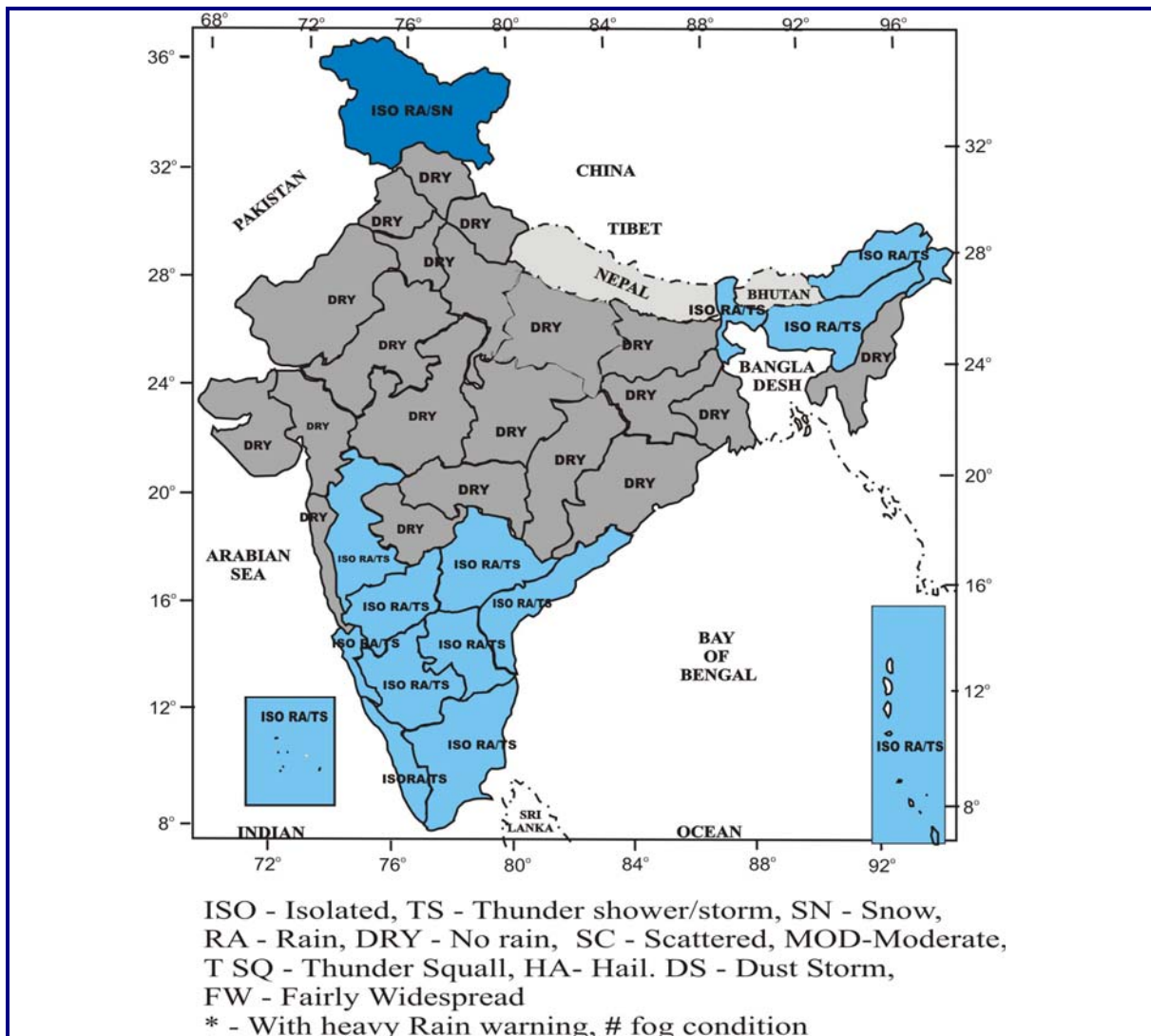
Orissa

- Rainfall occurred at isolated places over the State during the above period.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over the State during next 48 hours and abate thereafter.

Advisories

- As mainly dry weather is likely to occur for next three days over the State, apply irrigation to vegetables, *rabi* oilseed and pulse crops and early sown sugarcane.
- Continue main field preparation and transplanting of *dalu* rice. Use 6 kg N, 12kg P, and 12 kg K per acre at the time of transplanting in short duration paddy.
- Prepare land and start sowing of moong. Select PDM-54 variety for sowing of moong. Apply 8 kg N, 16 kg P₂O₅ and 8 kg K₂O / acre at the time of land preparation.
- Apply 12 kg N / acre at 3 weeks after transplanting of *dalu* rice under weed free condition and thin film of water. Maintain 3 – 5 cm of water after 48 hours of application of N.
- There is mild chance of occurrence of aphids in vegetables and oilseeds. If population crosses economic threshold level, spray dimethoate or methyl demeton @ 2 ml per litre of water.
- There is mild chance of occurrence of leaf eating caterpillar and tikka disease in groundnut. If crosses economic threshold level, to control leaf eating caterpillar spray endosulfan @ 2ml per litre of water and to control tikka disease spray mancozeb @ 3 g / litre of water.

Forecast Valid upto 17th February, 2008



Salient weather features for the week ending 13/02/08

METEOROLOGICAL ANALYSIS

- Last week's western disturbance as an upper air system over Jammu & Kashmir and neighbourhood persisted on 7th & 8th and moved away eastwards thereafter.
- Last week's cyclonic circulation in lower tropospheric levels over east Assam and adjoining Arunachal Pradesh lay over Arunachal Pradesh on 7th and moved away eastwards thereafter.
- The cyclonic circulation in lower tropospheric levels over East Madhya Pradesh and adjoining Chhattisgarh, lay over Telangana & neighbourhood on 7th, over Marathwada and adjoining Madhya Maharashtra on 8th and became less marked thereafter.
- Last week's upper air cyclonic circulation extending upto 0.9 km a.m.s.l. over southeast Arabian Sea and Lakshadweep area became less marked on 7th.
- A cyclonic circulation in lower tropospheric levels lay over Sub-Himalayan West Bengal & Sikkim and adjoining west Assam on 7th, over Assam on 8th, over east Assam & neighbourhood during 9-11th and over Arunachal Pradesh & neighbourhood on 12th & 13th.
- A cyclonic circulation in lower tropospheric levels lay over south Tamil Nadu coast & neighbourhood on 7th, over southeast Arabian Sea and Lakshadweep area on 8th & 9th and became less marked thereafter.
- Another cyclonic circulation in lower tropospheric levels lay over southwest Bay of Bengal off Sri Lanka coast on 8th, over extreme south peninsular India on 9th, over Comorin area during 11th to 13th.
- A cyclonic circulation in lower tropospheric levels lay over north Andhra Pradesh & neighbourhood on 9th and over North Interior Karnataka & neighbourhood during 10 to 12th and become less marked thereafter.

RAINFALL / SNOWFALL

Under the influence of the above systems:

- Fairly widespread rain/snowfall occurred over Jammu & Kashmir and Himachal Pradesh on 7-8th.
- Scattered to fairly widespread rain/thundershowers occurred over East Uttar Pradesh, Bihar and East Madhya Pradesh on 7th-8th. Scattered to fairly widespread rain/thundershowers also occurred over Orissa, Jharkhand and West Bengal on 8th & 9th and isolated over south Chhattisgarh on 10th & 11th.
- Fairly widespread rain/thundershowers occurred over Coastal Andhra Pradesh during 8th 12th with isolated heavy rainfall. Scattered rain/thundershowers also occurred over Telangana and Vidarbha on 11th & 12th.
- Scattered rain/thundershowers occurred over Tamil Nadu & Puducherry during 7th-12th, Kerala during 8th to 12th and South Interior Karnataka on 9th & 10th with isolated heavy rainfall on 9th and over Coastal Karnataka on 13th.
- Scattered rain/thundershowers occurred over northeastern States on many days of the week.
- Isolated rain/thundershowers occurred over Lakshadweep on many days of the week.
- Mainly dry weather prevailed over remaining parts of the country during the week.

MINIMUM TEMPERATURE

COLD WAVE CONDITION

- Cold wave to severe cold wave conditions prevailed over many parts of Jammu division of Jammu & Kashmir, Punjab, Haryana, Madhya Pradesh, West Uttar Pradesh, Rajasthan and Gujarat during many days of the week. They were severe over isolated pockets of these regions during the same period. Cold wave conditions also prevailed over some parts of Chhattisgarh and east India during second half of the week.
- The minimum temperatures were below normal by 2-4°C over remaining parts of northwest and west India during many days of the week and interior Orissa & Jharkhand during second half of the week.
- They were above normal by 2-6°C over West Bengal & Sikkim, Coastal Orissa, Andhra Pradesh, Vidarbha and Tamil Nadu during many days of the week. They were above normal by 2-6°C over northeastern states during first half of the week and near normal during second half of the week.
- They were normal over remaining parts of the country during the week.

FOG

Fog conditions in morning hours developed over isolated pockets of Haryana, Punjab, north Rajasthan and West Uttar Pradesh during 1st half of the week. Fog conditions in morning hours also developed over isolated pockets of East India on 7th & 8th.

RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 13TH JANUARY, 2008)

Rainfall was excess/normal in 18; deficient/scanty in 10 and no rain in 8 out of 36 meteorological subdivisions (Actual: 10.9 mm, Normal: 4.7 mm and Departure: +134 %).

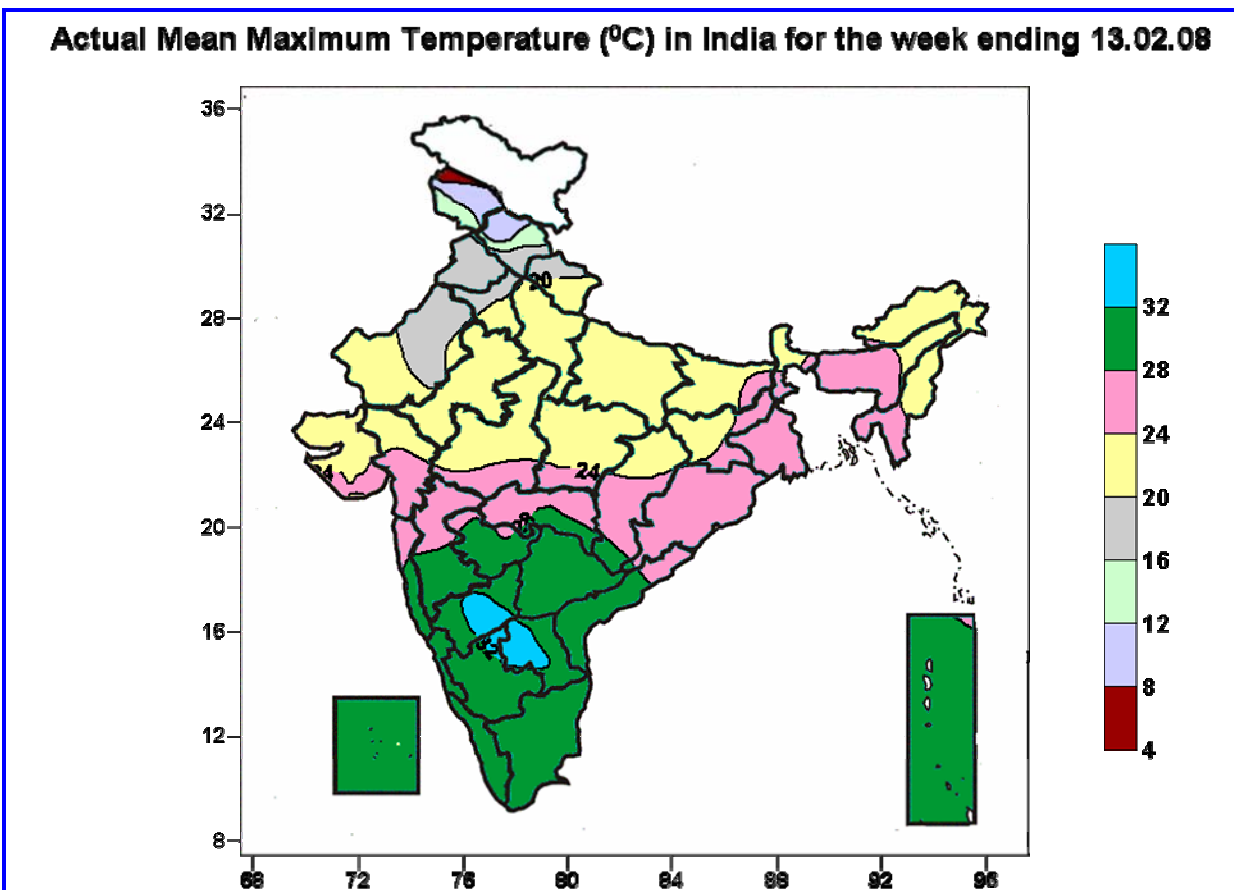
CUMULATIVE SEASONAL RAINFALL (1ST JANUARY TO 13TH JANUARY, 2007)

Rainfall was excess/normal in 18; deficient/scanty in 16 and no rain in 2 out of 36 meteorological subdivisions. (Actual: 38.1 mm, Normal: 30.0 mm and Departure: +27%).

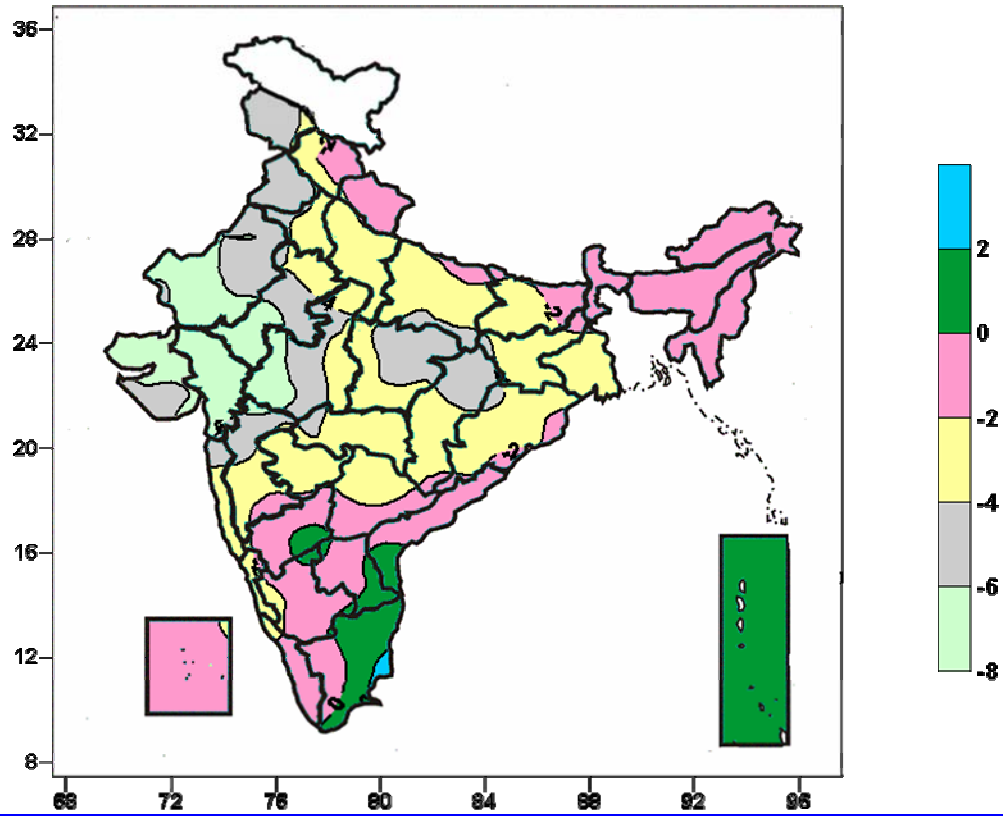
OUTLOOK FOR THE WEEK ENDING ON 20TH JANUARY, 2008.

- Cold wave conditions likely to continue over Punjab, Rajasthan and Gujarat on 14th & 15th and abate thereafter.
- Cold wave to severe cold wave conditions over many parts of central & east India are likely to continue during 14-16th and abate thereafter.
- Isolated to scattered rainfall activity is likely over northeastern states and Jammu & Kashmir during the first half of the week.

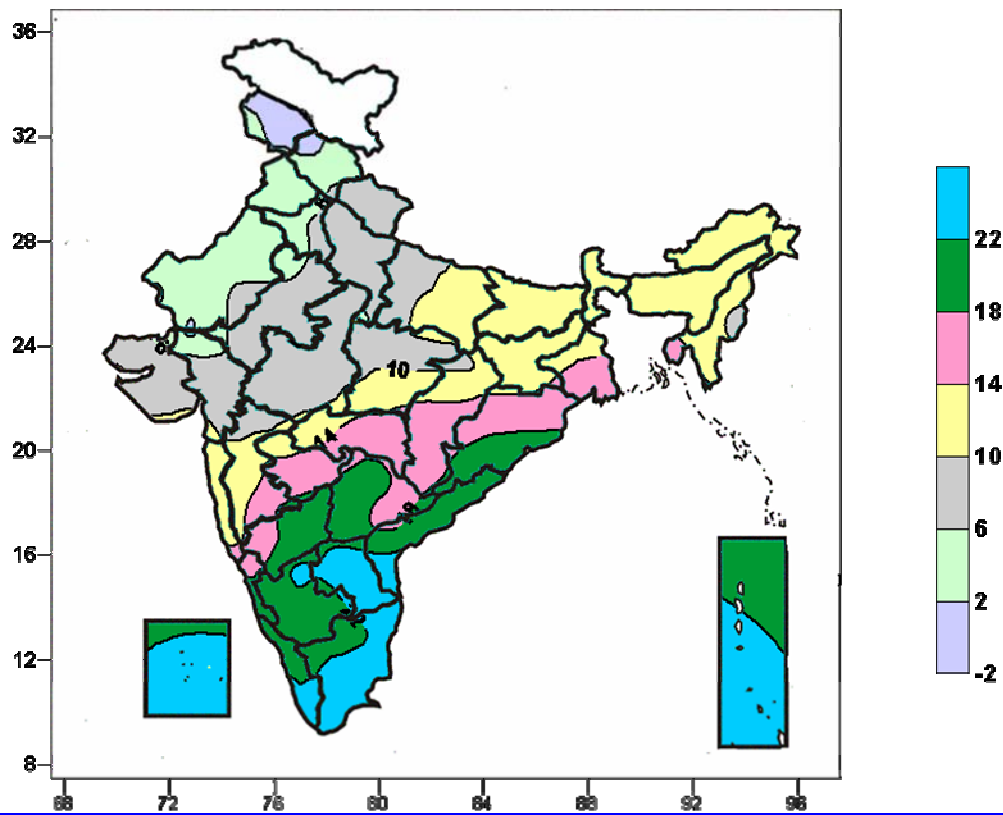
Contour maps for the week ending 13th February, 2008



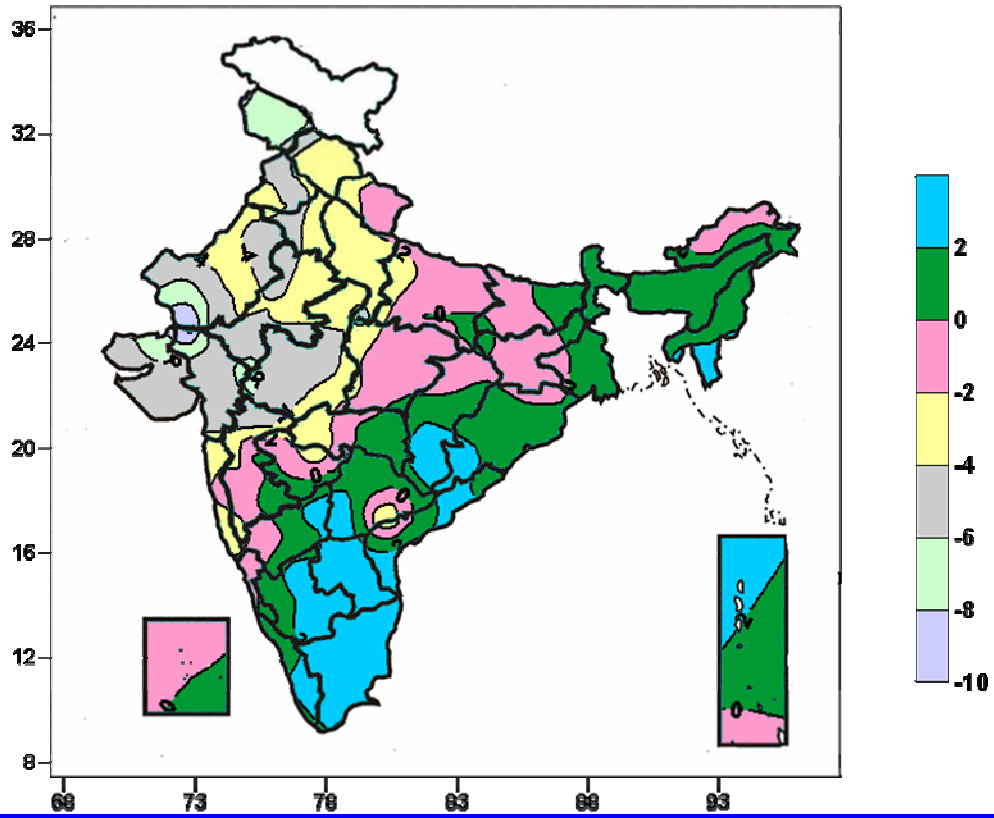
Maximum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 13.02.08



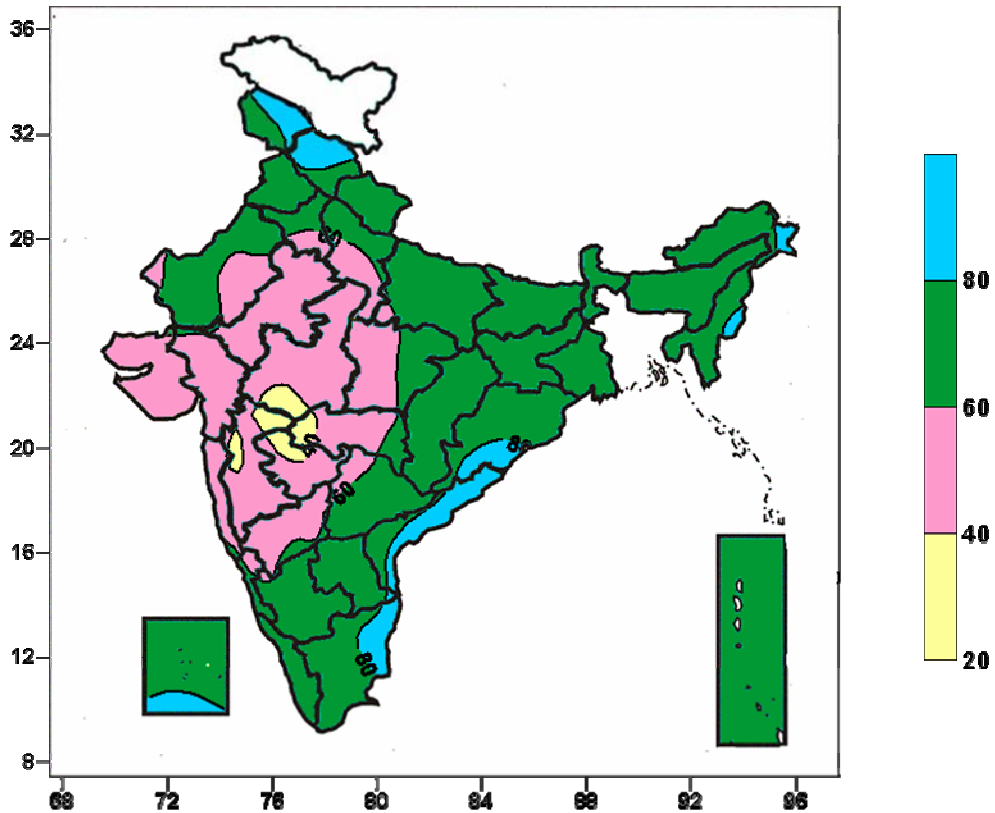
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) In India for the week ending 13.02.08



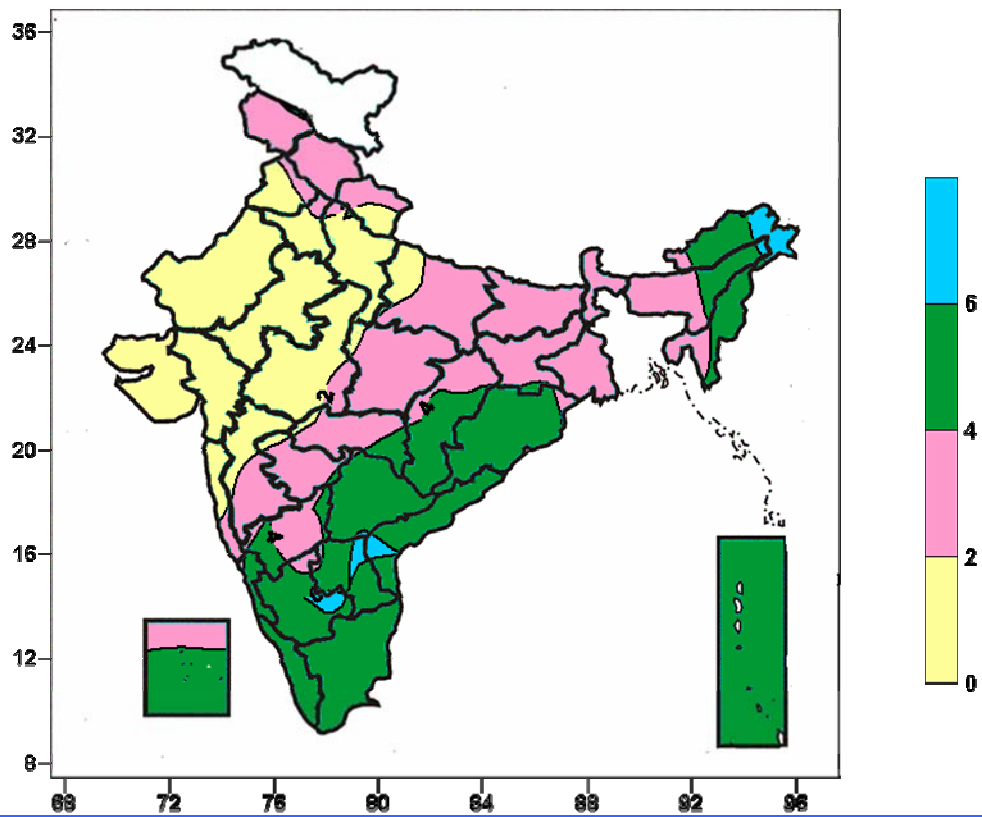
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 13.02.08



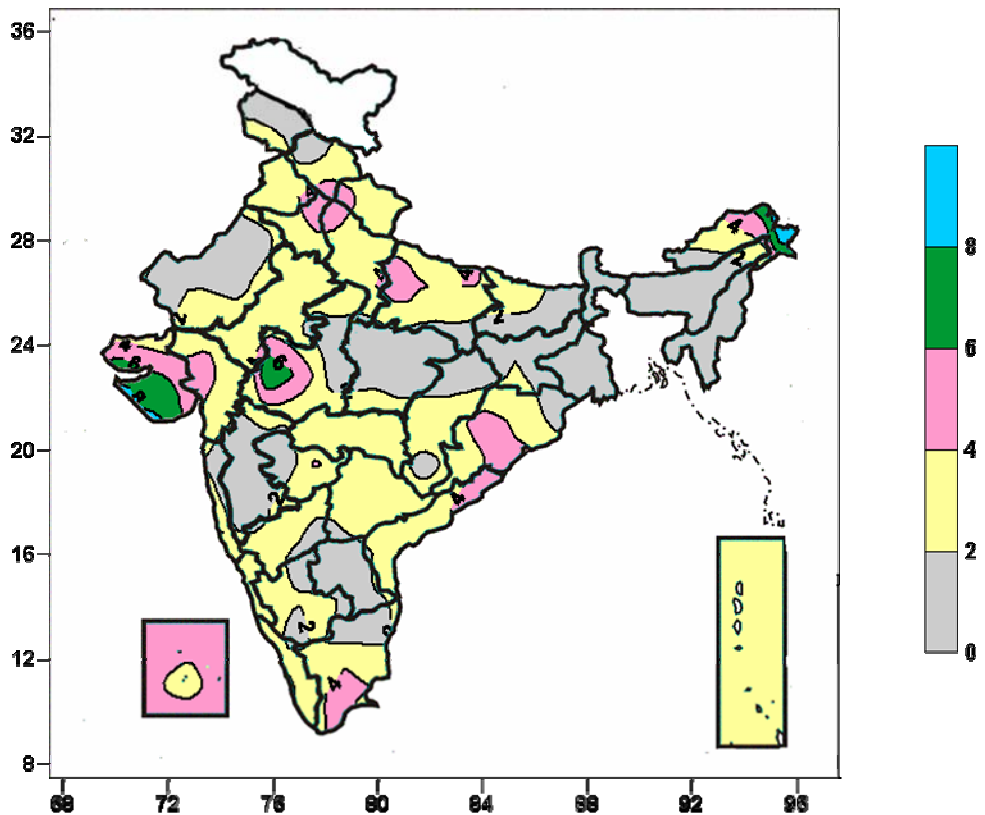
Relative Humidity (%) over India for the week ending 13.02.08



Cloud amount (okta) over India for the week ending 13.02.08



Wind speed (knots) over India for the week ending 13.02.08



Desert Locust Forecasting



Rainfall (mm)							
Station Name	07.02.08	08.02.08	09.02.08	10.02.08	11.02.08	12.02.08	13.02.08
Amritsar	00.2	00.2	00.0	00.0	000	00.0	00.0
Barmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Sriganganagar	00.3	00.0	00.0	00.0	00.0	00.0	00.0
Jaisalmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Kota	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Deesa	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Churu	00.0	00.0	00.0	00.0	00.0	00.0	00.0

Temperature (degree Celcius)							
Station Name	07.02.08	08.02.08	09.02.08	10.02.08	11.02.08	12.02.08	13.02.08
Amritsar	07.0	-	08.0	08.0	08.5	08.5	08.5
Barmer	-	12.5	13.5	15.0	16.0	16.5	16.5
Sriganganagar	-	09.5	10.5	12.5	12.0	12.5	13.5
Jaisalmer	-	11.5	12.0	13.5	15.0	14.5	13.5
Kota	-	15.0	13.5	14.5	14.0	15.0	15.0
Deesa	11.5	12.0	13.5	-	16.0	15.5	15.5
Churu	-	-	-	-	-	-	-

Wind														
Station Name	07.02.08		08.02.08		09.02.08		10.02.08		11.02.08		12.02.08		13.02.08	
	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.
Amritsar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Barmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sriganga nagar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaisalmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kota	-	-	ENE	07	-	-	-	-	-	-	NNE	15	NNW	11
Deesa	SSW	10	N	12	-	-	-	-	-	-	N	05	NNE	07
Churu	-	-	NW	07	-	-	-	-	-	-	NW	13	NNW	11

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	Mustard	Wheat	Barley	Berseem
Vegetative / flowering	Flowering / capsule formation	Tillering	Vegetative	Vegetative
Gram				
Vegetative / flowering				
Haryana				
Sugarcane / Autumn sugarcane	Horticultural crops	Sunflower	Wheat	Rabi Pulses
Vegetative	Vegetative	Germination	Vegetative	Vegetative
Rabi oilseeds	Irrigated Toria			
Flowering	Fruiting			

Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Ladies finger	Barley	Gram	Wheat
Vegetative/ head formation	Fruiting	Vegetative	Vegetative	Tillering
Potato	Oilseeds (Torai, Rapeseed and mustard)			
Vegetative	Vegetative			

Jammu & Kashmir

Vegetable crops	Rice	Pulses	Brown Sarson, Mustard	Toria
vegetative	Harvesting- Jammu div.	vegetative	Flowering / capsule formation	Harvesting (Jammu div.)
Wheat	Barley, Oat			
Tillering / jointing	Vegetative			

Punjab

Sugarcane	Horticultural crop	Rabi Oilseeds	Irrigated toria	Sunflower
Vegetative	Vegetative	Flowering	Fruiting	Early vegetative
Autumn sugarcane	Wheat	Rabi pulses	Rabi oilseeds	
Vegetative	Vegetative	Vegetative	Vegetative	

Rajasthan

Wheat & barley	Gram	Early sown mustard, taramira	Potato	
Tillering	Flowering / pod formation	Pod formation	Early vegetative	

Uttar Pradesh

Sugarcane	Vegetables	Rabi pulses	Rai , mustard	Toria
Cane maturity	Flowering / fruiting / maturity	Flowering / grain formation	Flowering / pod formation	Harvesting
Mango	Wheat			
Vegetative	Vegetative			

Uttarakhand

Mango/Litchi	Pea / Toria	Sugarcane	Potato	Wheat
Vegetative	Harvesting	Maturity	maturity	Tillering / flowering

Assam

Wheat	Arhar	Horticultural plants	Boro rice	Winter vegetables
Tillering	Pod formation / maturity	Planting	Tillering	flowering // fruiting / harvesting
Mustard, rapeseed, pea lentil etc.	Potato			
pod formation / early maturity	Tuber formation / early maturity			

Arunachal Pradesh

Ginger	Rabi maize	Pea	Potato	Wheat
Harvesting	Cob formation	Harvesting	Harvesting	Vegetative
Rabi Vegetables	Mustard			
Vegetative / harvesting	Flowering			

Bihar

Vegetables & fruit crops	Maize fodder	Arhar	Early sown Rabi pulses	Wheat
vegetative	vegetative	Vegetative	Vegetative / flowering	Vegetative
Sugarcane	Rabi oilseeds (rai, linseed)	Gram	Potato	
Vegetative	Pod formation	sowing	Tuber formation	

Jharkhand

Pea, gram, potato	Litchi / Mango	Vegetables (Tomato, Brinjal, Bhendi)	Wheat	Mustard
Vegetative Pea – pod formation	Vegetative (tree)	Vegetative	Active vegetative	Active vegetative
Summer rice				
Nursery sowing				

Sikkim

Orange	Vegetables (Cauliflower, Cabbage, Carot, Beat, tomato)	Large Cardamom	Wheat	Mustard
End Harvesting	Harvesting	Vegetative / flowering	Tillering	Flowering / capsule formation

West Bengal

Sugarcane	Arhar	Mustard / Rapeseed / gram / lentil	Potato	Sunflower
Cane maturity / harvesting	Pod maturity / harvesting (Rabi arhar - flowering / pod formation)	Pod formation / seed formation	Tuber formation / early maturity	Vegetative
Boro rice	Early transplanted Boro rice	Wheat		
Transplanting	Early vegetative / tillering	Ear initiation / flowering / grain formation		

Chattisgarh

Sugarcane	Rapeseed, mustard	Toria	Tomato, Brinjal, Chili	Wheat
Cane maturity / harvesting (Autumn sugarcane – Vegetative)	Pod formation / early maturity	Pod maturity / harvesting	Vegetative / flowering / fruiting	Tillering / jointing
Rabi crops	Early sown rabi crops	Potato	Summer Rice	Sunflower, Groundnut
pod formation / grain filling	Germination / early vegetative / vegetative	Tuber formation	Transplanting	Sowing

Gujarat

Sugarcane	Kharif Cotton	Castor	Mustard	Wheat
Cane maturity / harvesting	Boll formation/ boll maturity / picking	Spike formation / pod formation	Flowering / pod formation	Tillering
Summer rice	Summer groundnut			
Land preparation / transplanting	Land preparation / sowing			

Maharashtra

Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marthwada and Vidarbha)	Rabi safflower (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif Tur (Madhya Maharashtra, Marathwada & Vidarbha)
Elongation / cane development	Active growth / elongation	Flowering / head formation / grain filling	Flowering / grain filling / maturity	grain maturity / harvesting
Potato (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi onion (Madhya Maharashtra, Marathwada)	Maize (Konkan, Madhya Maharashtra, Marathwada & Vidarbha)	Gram (Madhya Maharashtra, Marathwada & Vidarbha)	Mango
Vegetative	vegetative	Vegetative	flowering / pod formation / grain filling / grain maturity	Flowering
Wheat (North Konkan, Madhya Maharashtra, Marathwada & Vidarbha)	Rabi safflower			
Tillering / ear head initiation	Flowering / head formation / grain filling			

Madhya Pradesh

Sugarcane	Rabi crops (linseed, lentil, gram, mustard)	Wheat		
Grand growth	Pod / capsule formation / maturity	Flowering / grain formation		

Orissa				
Kharif vegetables	<i>Dalua</i> rice	Sugarcane	Early sown crops	Oilseeds
Vegetative / fruiting	Transplanting	New planting	Early vegetative	Flowering / pod formation
Pulses				
Flowering / Pod formation				
Andhra Pradesh				
Rice	Rabi red gram / Black gram / Groundnut / chillies			
Tillering	Vegetative			
Karnataka				
Sugarcane (Ratoon crop)	Annual sugarcane	Rabi Jowar/Maize	Rabi Sunflower, cotton	Summer rice
Grand growth	Early vegetative / tillering	Grain development / maturity	Grain formation	Sowing
Early sown maize, groundnut, sunflower				
Germination / early vegetative				
Kerala				
Rubber	Pepper	<i>Puncha</i> rice		
New planting	End harvesting	Panicle initiation		
Tamil Nadu				
Rice (Samba)	Sugarcane (Early, Mid season)	Special season sugarcane	Groundnut/Black gram/Green gram/Red gram	Coriander
Tillering / vegetative	Cane development / maturity	Grand growth	Vegetative	Vegetative
Jowar/Bajra/Samai	Cotton	Maize		
Vegetative	Picking	Grain development		
