



Summary of Agromet Advisory Services for different States of the country

Issued by

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(For the period 31st January to 4th 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 dry during the period. Cold to severe cold wave conditions are prevailing in most parts of the State with temperatures below freezing levels in some pockets.
- Mainly dry weather is likely over the State during next 48 hours. Scattered rain / thundershowers are likely over the State from 2nd February onwards.
- Increase in night temperatures and abatement of cold wave conditions over the plains from 2nd February onwards.

Low Temperature Warning: Ground frost conditions are likely over some parts of the State during next one night.

Advisories

- As there was no rain in the State during last week and mainly dry weather is likely over the State during next 48 hours and scattered rain / thundershowers are likely over the State from 2nd February onwards, apply light and frequent irrigation to sugarcane, *rabi* oilseeds, pulses, wheat and Horticultural crops to protect from cold / frost injury.
- 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.
- Sowing of short duration sunflower hybrids may be undertaken.
- Prepare field for sowing of spring sugarcane crop as delayed sowing may affect yield.

Haryana

- Weather remained dry during the period. Cold to severe cold wave conditions prevailed in most parts of the State with temperatures below freezing levels in some pockets.
- Mainly dry weather is likely over the State during next 48 hours. Isolated rain/thundershowers are likely over the State from 2nd February onwards.
- Increase in night temperatures and abatement of cold wave conditions over the plains from 2nd February onwards.

Low Temperature Warning: Ground frost conditions are likely over some parts of State during next one night.

Advisories

- As there was no rain during last week and mainly dry weather is likely over the State during next 48 hours and isolated rain/thundershowers are likely over from 2nd February onwards, apply light and frequent irrigation to sugarcane, *rabi* oilseeds, pulses, wheat and Horticultural crops to protect from cold/frost injury.
- 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.

- Sowing of sunflower hybrids may be undertaken, taking advantage of realized rain.
- Prepare field for sowing of spring sugarcane crop as delayed sowing may affect yield.

Rajasthan

- Isolated rain/thundershowers over Rajasthan from 2nd February onwards. Increase in night temperatures and abatement of cold wave conditions from the State from 2nd February onwards.

Low temperature warning: Ground frost conditions are likely over north Rajasthan during next one night.

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.
- Undertake intercultural operations in gram, mustard and tarmira to keep the field weed free.
- Monitor gram for pod borer and undertake plant protection measures if the pest population crosses ETL.

Uttar Pradesh

- Cold wave conditions prevailed in most parts of West U.P., at some parts of East U.P. and weather had been dry in U.P. on 28th January. Cold wave conditions abated from U.P. and weather been mainly dry in the State on 29th January. Very light rain occurred at isolated places of Varanasi and Allahabad divisions. Weather had been mainly in the remaining divisions of the State on 30th January.
- Mainly dry weather is likely to prevail over the State. Increase in night temperatures and abatement of cold wave conditions over the plains of West U.P. from 2nd February onwards. Isolated rain / thundershowers are likely over West U.P. from 2nd February onwards.

Low temperature warning: Ground frost conditions are likely over some parts of West Uttar Pradesh.

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 wheat, vegetable, pulses, rai, and mustard. Apply light and frequent irrigation in west U.P. to save the crops from ground frost.
- 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 isolated places in the State.
- Mainly dry weather is likely over the State during next 48 hours. Scattered snowfall activity is likely over the State from 2nd February onward.

Advisories

- As there was no significant rain in most of the districts of the State during last week and mainly dry weather is likely during next 48 hours and scattered snowfall activity is likely over the State from 2nd February onward, apply light and frequent irrigation to vegetables, toria, potato, wheat, barley, gram and rapeseed and mustard crops. This also prevents the formation of ground frost and saves the crop from cold injury.
- Also arrange for smoking to save the crops from ground frost and cold injury.
- Postpone application of 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.
- Continue sowing of spinach, raddish and carrot in low and mid hills.

- 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.

Uttarakhand

- Light rain was recorded at isolated places on 26th & 27th January, while mainly dry weather prevailed during rest of the period.
- Mainly dry weather is likely over the State during next 48 hours. Scattered snowfall activity is likely over the State from 2nd February onward.
- Increase in night temperatures and abatement of cold wave conditions over the plains from 2nd February onwards.

Advisories

- Due to decrease in 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 and scattered snowfall activity is likely over the State from 2nd February onwards, apply light irrigation to potato and wheat. This will also protect the crops from cold injury. Postpone irrigation in hilly areas as snowfall is likely at many places from 3rd February.
- 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.

Jammu & Kashmir

- Light rain/snow occurred at few places on 30th January and occurred at isolated places on 29th January over J&K divisions.
- Mainly dry weather is likely over the State during next 48 hours. Scattered snowfall activity is likely over the State from 2nd February onwards.
- Increase in night temperatures and abatement of cold wave conditions over the plains from 2nd February onwards.

Advisories

- Due to decrease in minimum temperature, farmers are advised to arrange for smoking in the field to prevent the crops from cold injury.
- Apply light and frequent irrigation to vegetables, pulses, wheat and oilseed crops as there was no significant rainfall during last week and mainly dry weather is likely over the State during next 48 hours and scattered snowfall activity is likely over the State from 2nd February onwards.
- 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.
- Apply first dose of urea in wheat (20-25 days crop) in Jammu division.
- Continue harvesting matured toria in Jammu division.
- Transplanting of tomato and onion may be done in Jammu division.

Delhi

- Weather remained mainly dry.
- Mainly dry weather is likely over the State during next 48 hours. Isolated rain / thundershowers are likely over the State from 2nd February onwards. Increase in night temperatures and abatement of cold wave conditions over the plains from 2nd February onwards.

Low Temperature Warning : Ground frost conditions are likely over some parts of the State during next one night.

Advisories

- As there was no 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 light and frequent irrigation to vegetables, mustard, gram, barley and wheat. This also prevents the formation of ground frost and saves the crop from cold injury.
- Upper leaves of potato crops may be trimmed before hoeing. Undertake sowing of pumpkin.
- Monitor mustard for chepa disease and if crosses economic threshold level, sprinkle Endosulphan 35% or metasystox 25 EC @ 1 ml / litre of water.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

- Rain occurred at isolated places in the State on 30th January. Dry weather prevailed on 28th & 29th January.
- 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 for the next three days, apply 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.

Tamilnadu

- Rainfall occurred at one or two places over the State on 29th, 30th January and dry weather prevailed on 28th January.
- 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 to prevail for the next three days, apply irrigation to sugarcane and early sown maize, groundnut, black gram, green gram and pulses.

- 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 to keep the field weed free.

Karnataka

- Mainly dry weather prevailed over South Interior Karnataka and dry weather prevailed over Coastal Karnataka and North Interior Karnataka on 28th January. Dry weather prevailed over the State on 29th & 30th January.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall over the State during last few weeks and dry weather is likely to prevail for the next three days, apply irrigation to sugarcane, *rabi* jowar, maize, cotton and sunflower.
- Due to decrease in minimum temperature, farmers are advised to apply light and frequent irrigation and arrange for smoking in the field to prevent the crops from cold injury.
- 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.

Andhra Pradesh

- Isolated rain occurred over Coastal Andhra Pradesh on 26th & 27th January and over rayalaseema on 27th January. Mainly dry weather prevailed over Telangana on 25th & 26th January and over Rayalaseema on 29th January. Generally dry weather remained dry over the State during the week.
- Isolated rain / thundershowers over Coastal Andhra Pradesh during next 48 hours and mainly dry thereafter. Mainly dry weather is likely over the rest region of the State.

Advisories

- As there was no significant rainfall during last week and isolated rain/thundershowers over Coastal Andhra Pradesh during next 48 hours and mainly dry thereafter. Mainly dry weather is likely over the rest of the State, apply irrigation to red gram, groundnut, black gram and chillies.
- Continue picking cotton. Picking may be undertaken in the morning hours to maintain the quality of kapas.
- 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 + Chlorpyriphos @ 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.

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

Assam

- Light to moderate rain occurred at a few places on 28th January and at isolated places on 29th & 30th January over the State.
- Rain / thundershowers are likely at a few places over the State during next 24 hours and isolated thereafter.

Advisories

- As there was no significant rain in the State during last week and no significant rain 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.
- Continue harvesting of matured crops of sugarcane. Red rot infested sugarcane may be harvested early and the field should be newly planted. Ratooning of infested plant should be discarded.
- 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 / bavistan @ 1 g per litre of water should be sprayed properly six times at an interval of 12 days. Spray pesticide on a non rainy day.
- For control of leaf blight and leaf spot diseases of wheat, Dithane Z-78 @2.5 gm per litre of water may be sprayed on a non rainy day.

Arunachal Pradesh

- Rain / thundershowers occurred at many places during the period.
- Rain / thundershowers are likely at a few places over the State during next 24 hours and isolated thereafter.

Advisories

- As there was no significant rainfall in the State during last week and rain / thundershowers at a few places are likely over the State during next 24 hours and isolated thereafter, apply irrigation to vegetables, wheat, potato, pea, *rabi* maize and mustard.
- Harvest the matured crops of ginger, vegetables and early sown potato.
- Undertake weeding and hoeing in wheat, mustard and *rabi* maize on a non rainy day to keep the field weed free.

Bihar

- Light to moderate rain occurred at many places on 24th and 30th January. Weather was mainly dry on rest days.
- 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 vegetables,

arhar, wheat, gram, fodder maize and sugarcane. Postpone irrigation in Bhagalpur, Gaya, Patna and Rohtas districts as there was sufficient rainfall in these districts during last week.

- 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

- Very light to light rain occurred at isolated places in the State.
- Mainly dry weather is likely over the State.

Advisories

- Apply irrigation to vegetables, wheat, mustard and gram as mainly dry weather is likely over the State for the next three days.
- To protect potato crop from aphid, spray Mancozeb (2.5 gm/litre water) or Ridomil (1.5 gm/litre water).
- Hoeing and weeding, top dressing with 55kg Urea per hectare and irrigation may be done in wheat, if the crop has crossed the age of 25 days.

Sikkim

- Very light to light rain occurred on 24th, 27th and 30th January over East Sikkim, otherwise weather was mainly dry on rest of the days.
- Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall during last few weeks and mainly dry weather is 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.
- 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.
- Start harvesting vegetable crops depending upon market demand.

West Bengal

- Very light rain occurred at isolated places on 28th and 30th January and weather remained mainly dry on 29th January over Gangetic West Bengal. Very light with moderate rain occurred at isolated places on 28th and 29th January and very light to light with moderate rain occurred at isolated places on 30th January over Sub-Himalayan West Bengal.
- Isolated rain / thundershowers are likely over the State.

Advisories

- As there was sufficient rainfall in most of the districts of the State during last week, postpone irrigation to the standing crops.
- Apply remaining dose of N at 40 – 45 days after sowing of wheat.
- 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.

- Keep vigil against red rot disease of sugarcane. Uproot and burn the diseased plants to prevent further spread of the disease.
- 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.
- 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.
- 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.
- 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

- Cold wave conditions prevailed in parts of Coastal Saurashtra on 28th January. Light rain occurred at isolated places in parts of Coastal Saurashtra & Kutch on 30th January.
- Mainly dry weather is likely over the State.

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 irrigation to *kharif* cotton, castor, mustard and wheat.
- Stop irrigation 10 – 15 days before harvesting of sugarcane. Start harvesting the crop when brix reading of sugarcane will be 19 or more.
- Monitor for pest and diseases in cotton. If damage exceeds economic threshold level, for control of sucking pests like aphids, jassids, thrips & *Heliothis* in boll formation stage, release Chrysoperla eggs or first instar larvae at the rate of 10000/ha twice at the interval of 15 days. For monitoring and management the boll worms and *Heliothis* hang 5 pheromone trap in /ha. Change the lures at an interval of 15 days. Destroy trapped moths every day. For control of boll worms release parasite Tricogamma 1.5 lakhs/ha 5 to 6 times as per requirement depending upon infestation in the field. For control of whitefly spray Neem oil 4 liter /ha as per requirement. For control of top shoot borer spray Endosulphan 35E% @ 2 liter/ha or Quinalphos 25EC @ 2 liter/ha.
- 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.

Chhattisgarh

- Moderate cold wave condition prevailed in Bilaspur division on 28th January weather was mainly dry in all divisions of the State.
- Mainly dry weather is likely over the State.

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 irrigation to sugarcane, toria, vegetables, rapeseed and mustard and wheat, potato and other *rabi* crops.
- Aphids are observed in mustard, safflower and vegetable crops, hence, it is advised to monitor the crops and if necessary spray Endosulphon or Matasystox @ 2.0 ml/liter of water.
- Prepare land and complete transplanting of summer rice with assured irrigation facilities.

Maharashtra

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

Advisories

- As there was no rain in the State during last week and mainly dry weather is likely to occur over the State, apply irrigation to sugarcane (Pre-seasonal), sugarcane (*suru*), *kharif tur*, *rabi* jowar, safflower, potato, gram, onion, wheat and maize.
- Second dose of 50 kg Nitrogen / ha may be applied to potato 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.
- Apply second dose of 60 kg Nitrogen / ha at 30 days after sowing of wheat.
- Mild incidence of white woolly aphids in Ahmednagar and Pune districts in Sugarcane (pre-seasonal) & sugarcane (*Suru*), pod borer in Nasik, Pune, Aurangabad division in *kharif tur*, shoot fly in Aurangabad division in *rabi* jowar, aphids in Latur & Kolhapur division in safflower and pod borer in Nasik, Pune, Kolhapur, Latur, Amravati division in gram 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.
- Monitor the crop for pod borer in tur & if exceeds economic threshold level, first spray 5% neem extract or 20 – 25 ml fenvalerate in 100 litres of water.
- Monitor the crop for shoot fly in *rabi* jowar & if exceeds economic threshold level, spray 5% neem seed extract or 30% Dimethoate 10 ml + 10 ml sticker per 10 liter of water or Nuvacron 36WSC 300ml/ha in 500 litres of water or release 10000-15000 larvae of *Chrysoperla carnea*/ha.
- 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.
- 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

- Light rain occurred at isolated places in East M.P. on 30th January and mainly dry / dry weather prevailed over rest of the State for remaining period.
- Isolated rain / thundershowers are likely over West Madhya Pradesh from 2nd February onwards. Mainly dry weather is likely over the rest region of the State.

Advisories

- As there was no significant rainfall during last few weeks in the State and isolated rain / thundershowers are likely over West Madhya Pradesh from 2nd February onwards and mainly dry weather is likely over the rest region of the State, apply irrigation to sugarcane, linseed, lentil, gram, Mustard and wheat.
- As cold wave conditions are likely to prevail for the next 1-2 days, farmers are advised to arrange for smoking in the field in West Madhya Pradesh to prevent the crops 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.
- Monitor linseed, mustard and masoor for mahu insect and apply Methyl Parathion 2% dust @ 25 kg/ha.

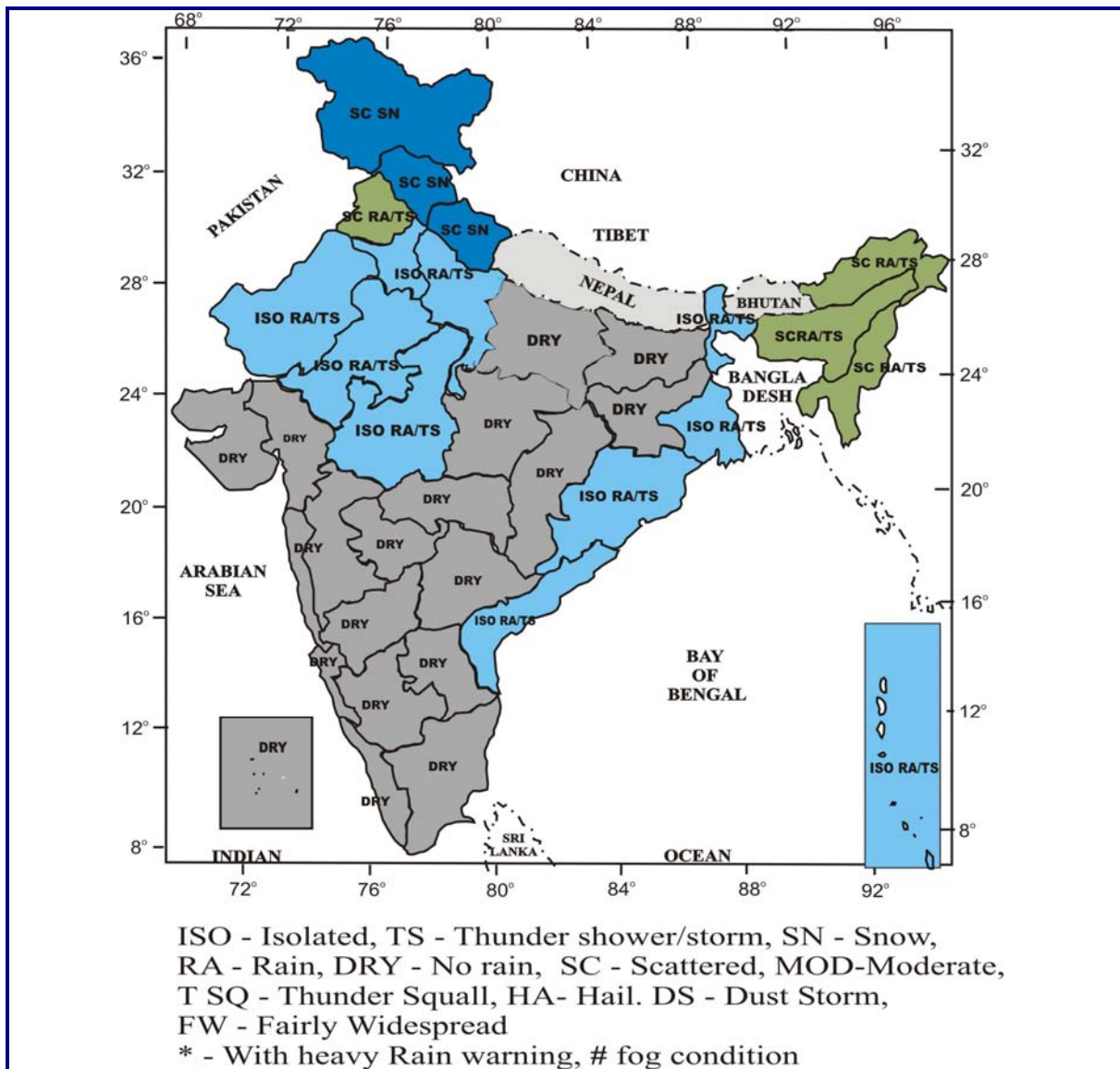
Orissa

- Rainfall occurred at most places over the State on 28th January and weather was dry over the State during the remaining days.
- Isolated rain / thundershowers are likely over the State.

Advisories

- As there was sufficient rainfall in the State during last week and rain / thundershowers are likely at isolated places over the State during next three days, postpone irrigation to vegetables, *rabi* oilseed and pulse crops.
- Continue main field preparation and transplanting of *dalua* rice. Use 6kg N, 12kg P, and 12 kg K per acre at the time of transplanting in short duration paddy.
- To control leaf eating caterpillar in groundnut spray Endosulfan @ 2ml per ltr of water and to control tikka disease spray copper oxychloride @ 2.5 gm/litre of water.
- Harvest the matured crops of arhar.

Forecast Valid upto 3^d February, 2008



Salient weather features for the week ending 30/01/08

METEOROLOGICAL ANALYSIS

- Last week's upper air cyclonic circulation in lower tropospheric levels over East Assam and adjoining Arunachal Pradesh persisted on 24th and moved away eastwards thereafter.
- The upper air cyclonic circulation extending upto 0.9 km above mean sea levels (amsl) over West Uttar Pradesh and neighbourhood lay over East Uttar Pradesh and neighbourhood on 24th, Bihar and adjoining West Bengal on 25th, Assam neighbourhood on 26th, east Assam and adjoining Arunachal Pradesh on 27th & 28th and over Arunachal Pradesh on 29th.
- An upper air cyclonic circulation extending upto 1.5 km amsl lay over Chhattisgarh and neighbourhood on 26th & 27th and became less marked on 28th.
- Last week's western disturbance as an upper air system over Jammu & Kashmir and neighbourhood persisted on 24th and moved away eastwards thereafter.
- A western disturbance as an upper air system lay over north Pakistan and adjoining Jammu & Kashmir on 25th, Jammu & Kashmir and neighbourhood on 26th, Himachal Pradesh & neighbourhood on 27th and moved away eastwards thereafter.
- Another western disturbance as an upper air system lay over north Pakistan on 28th, over north Pakistan and adjoining Jammu & Kashmir on 29th, over Jammu & Kashmir and neighbourhood on 30th.

- An upper air cyclonic circulation in lower tropospheric levels lay over West Uttar Pradesh and neighbourhood on 30th.
- An upper air cyclonic circulation extending upto 2.1 km amsl lay over southwest Bay of Bengal off Tamil Nadu coast on 28th & 29th and over Tamil Nadu on 30th.

RAINFALL / SNOWFALL

Under the influence of the above systems:

- Isolated rain/snowfall occurred over Jammu & Kashmir during 26th to 29th and activity was scattered on 30th. Isolated rain/snowfall also occurred over Himachal Pradesh on 26th, 27th & 30th.
- Fairly widespread rain/thundershowers occurred over Bihar, Jharkhand, sub-Himalayan West Bengal & Sikkim on 24th, Gangetic West Bengal & Orissa during 25th to 27th. It decreased thereafter with isolated to scattered rain/thundershowers over Gangetic West Bengal and coastal Orissa on 28th. Isolated rain/thundershowers occurred over East Uttar Pradesh on 24th, Chhattisgarh during 25th-27th and over Sub-Himalayan West Bengal & Sikkim on 27th & 28th. Isolated light rain/thundershowers occurred over different sub-divisions of west, east & central India on 30th.
- Scattered to fairly widespread rain/thundershowers occurred over northeastern states on many days of the week.
- Isolated rain/thundershowers occurred over coastal Tamil Nadu on 29th & 30th.
- Mainly dry weather prevailed over remaining parts of the country during the week.

MINIMUM TEMPERATURE

- Cold wave to severe cold wave conditions prevailed over many parts of Jammu & Kashmir, Punjab, Haryana, Madhya Pradesh, West Uttar Pradesh and north Rajasthan on many days of the week and over Jharkhand, north Chhattisgarh, Maharashtra and Gujarat on a few days of the week.
- The minimum temperatures were below normal by 2-4°C over remaining parts of northwest, central and west India during many days and interior Orissa, North Interior Karnataka and Telangana on a few days of the week.
- They were above normal by 2-4°C over West Bengal & Sikkim, northeast India, coastal Orissa and coastal Andhra Pradesh during many days and Tamil Nadu on a few days of the week.
- They were normal over remaining parts of the country during the week.

FOG

Fog conditions in morning hours developed over some parts of East Uttar Pradesh and Madhya Pradesh during 24th to 26th and Bihar on 25th & 26th. Fog conditions in morning hours also developed over isolated pockets of north Orissa and Jharkhand on 27th.

RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 30TH JANUARY, 2008)

Rainfall was excess/normal in 7; deficient/scanty in 16 and no rain in 13 out of 36 meteorological sub-divisions (Actual: 4.2 mm, Normal: 6.2 mm and Departure: -33 %).

CUMULATIVE SEASONAL RAINFALL (1ST JANUARY TO 30TH JANUARY, 2007)

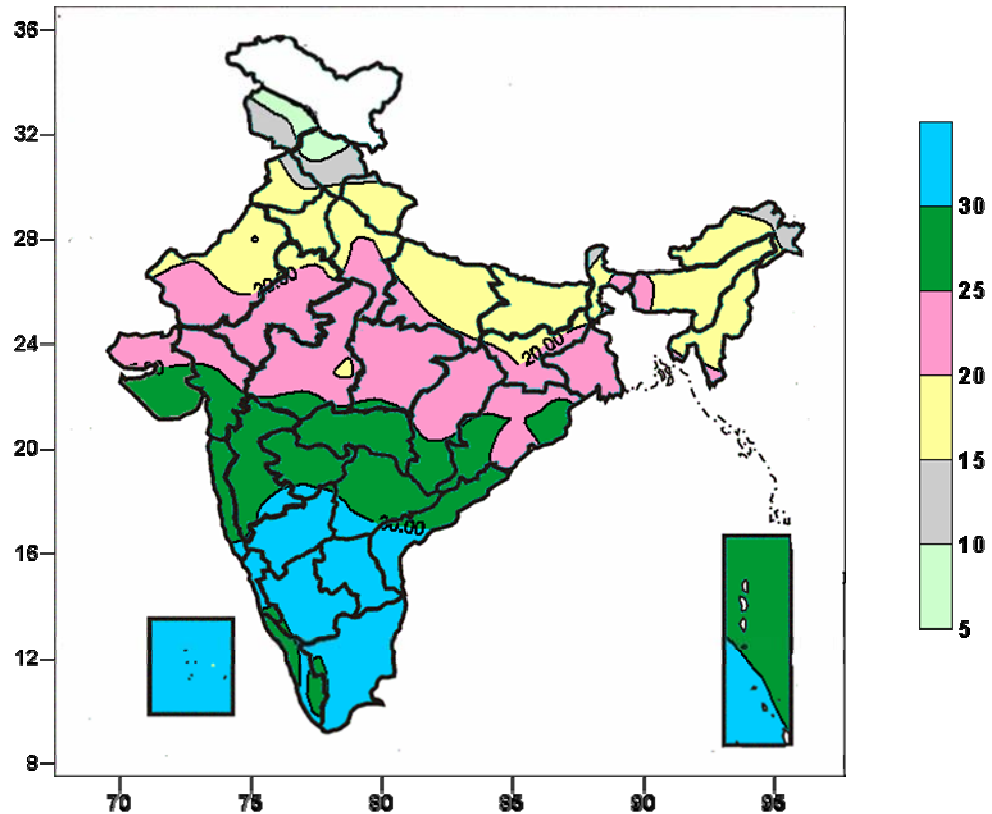
Rainfall was excess/normal in 8; deficient/scanty in 22 and no rain in 6 out of 36 meteorological sub-divisions. (Actual: 19.7 mm, Normal: 20.0 mm and Departure: -2%).

OUTLOOK FOR THE WEEK ENDING ON 6TH FEBRUARY, 2008.

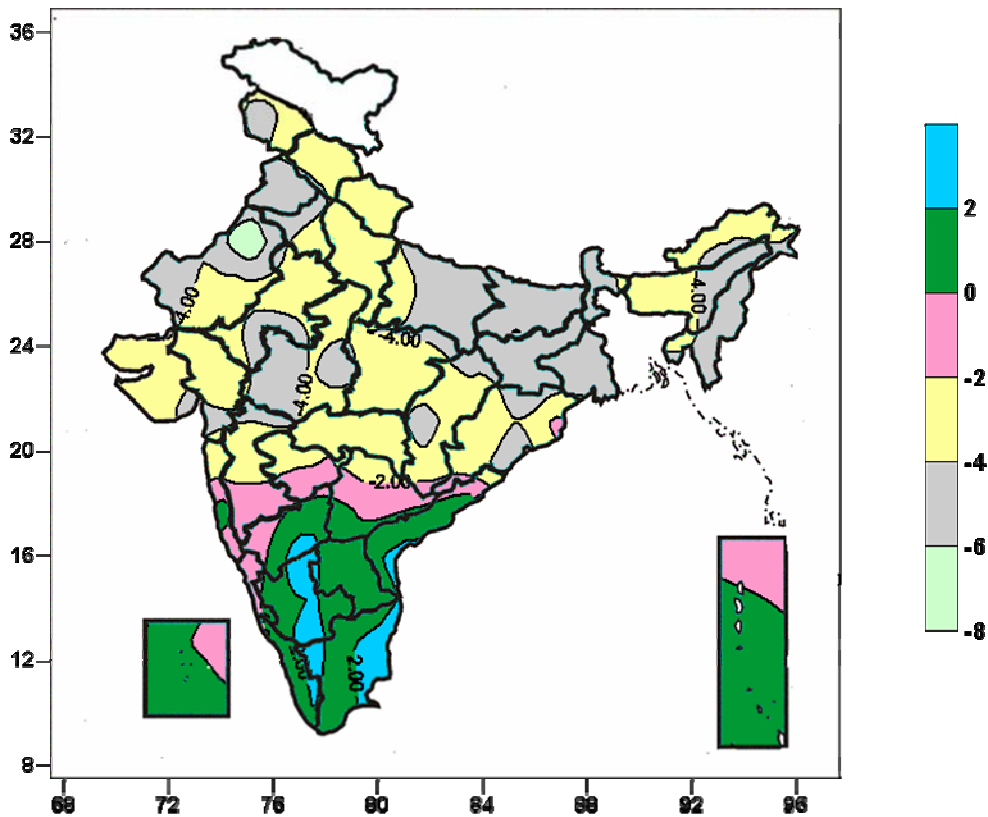
- The night temperatures are likely to increase from 2nd February onwards leading to abatement of prevailing cold wave conditions over Punjab, Haryana, Delhi, West Uttar Pradesh, East Rajasthan and West Madhya Pradesh.
- Numerical Weather Prediction models suggest that a western disturbance is likely to cause scattered to fairly widespread precipitation over northwest India from 2nd to 4th February.
- Decrease in rainfall activity over east & northeast India.

Contour maps for the week ending 30th January, 2008

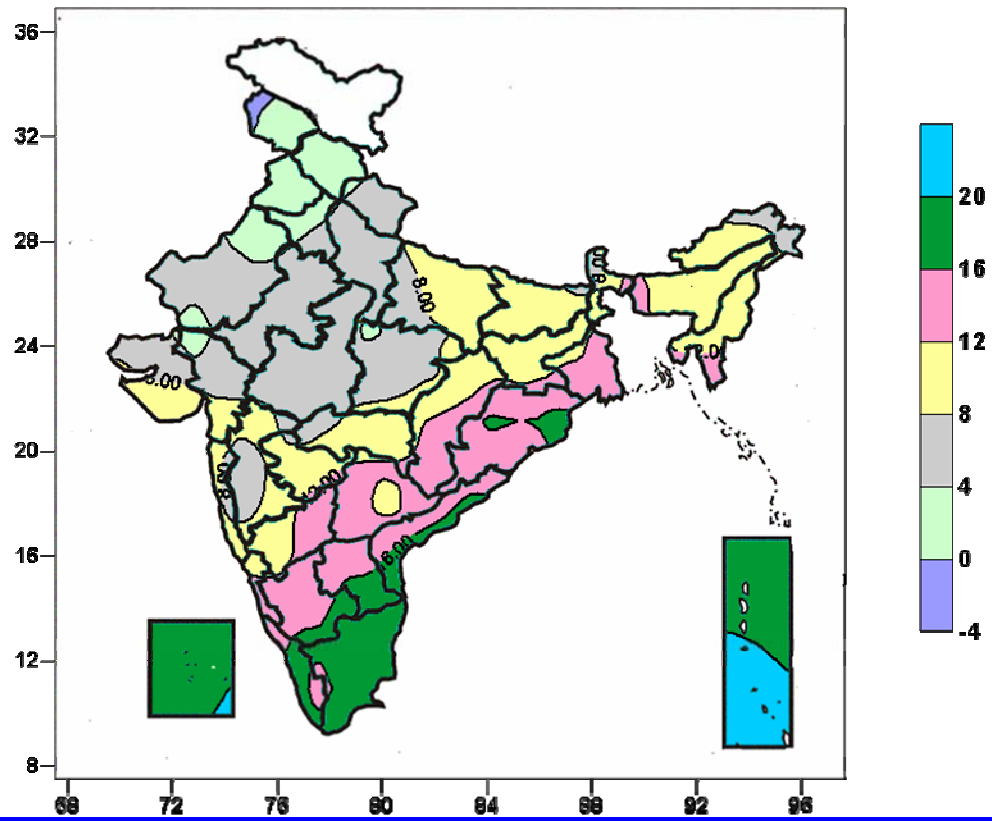
Actual Mean Maximum Temperature (°C) in India for the week ending 30.01.08



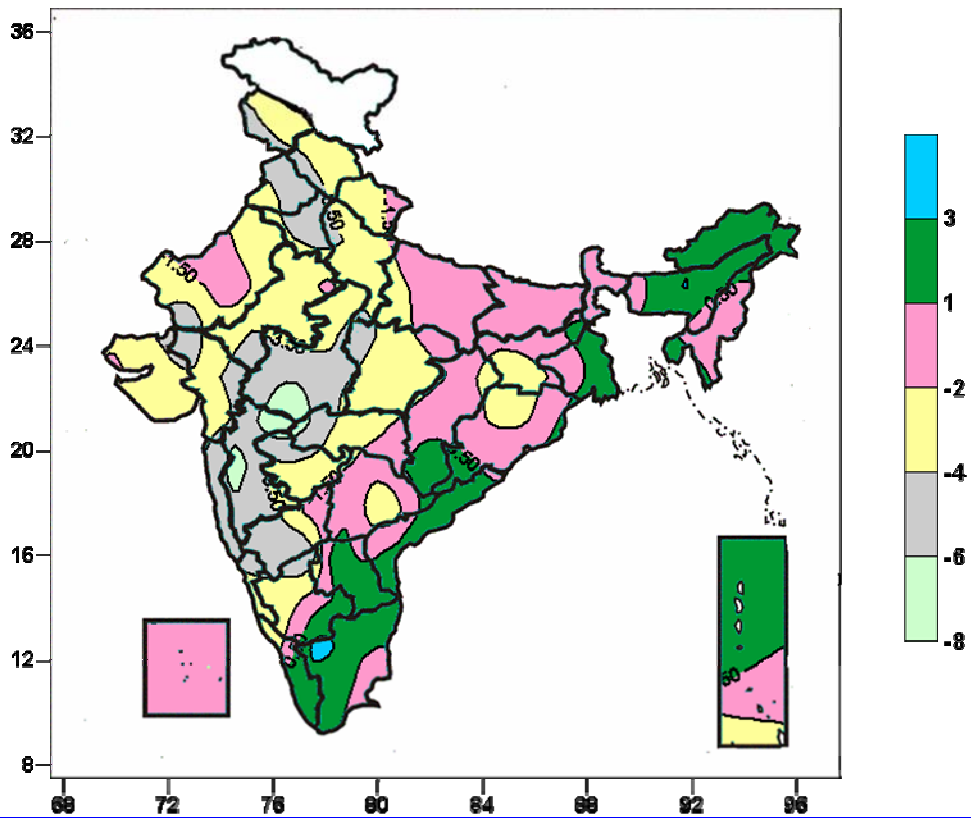
Maximum Temperature (°C) Anomaly in India for the week ending 30.01.08



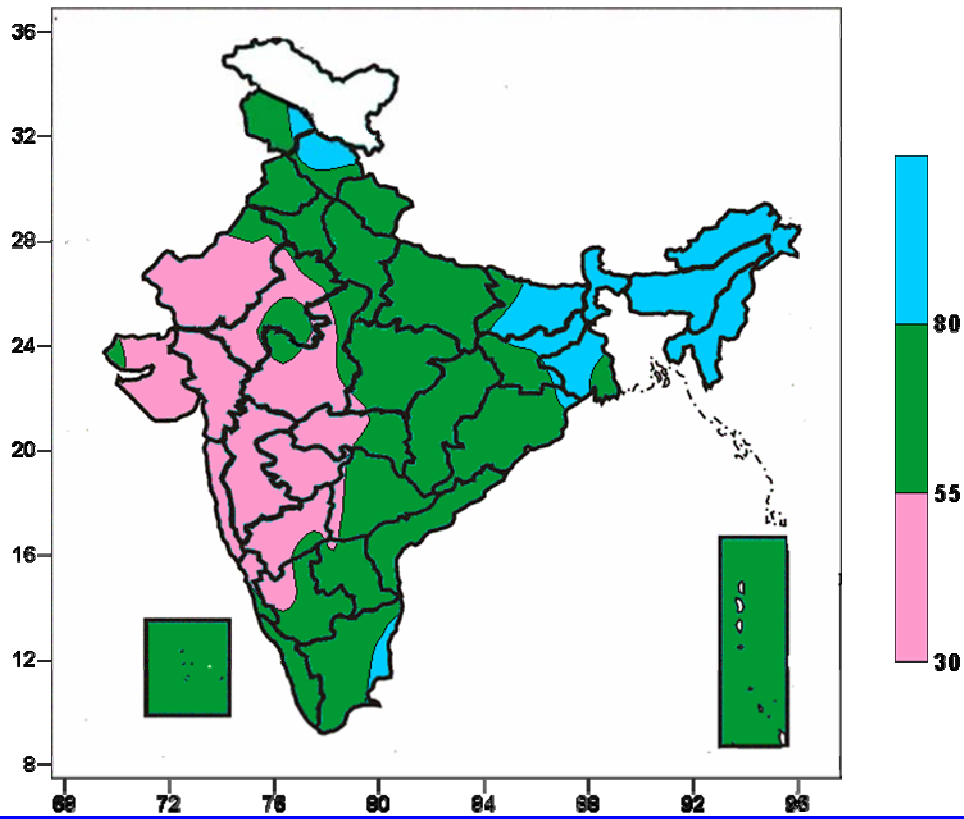
Actual Mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 30.01.08



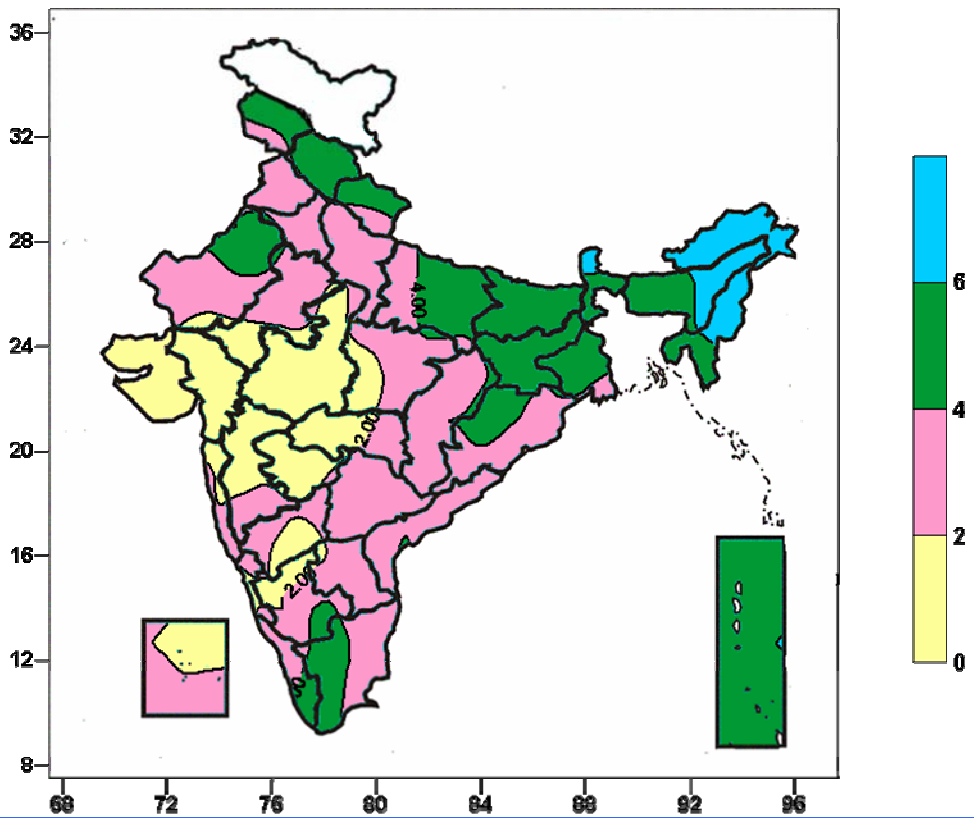
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 30.01.08



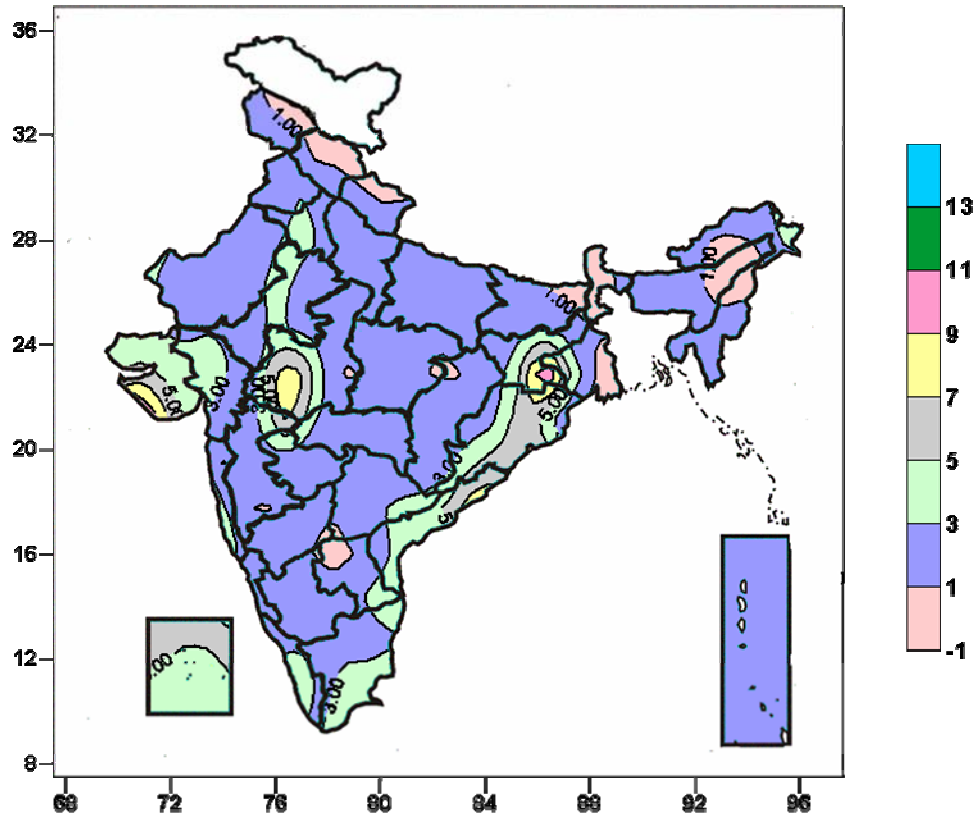
Relative Humidity (%) over India for the week ending 30.01.08



Cloud amount (okta) over India for the week ending 30.01.08



Wind speed (knots) over India for the week ending 30.01.08



Desert Locust Forecasting



Rainfall (mm)							
Station Name	24.01.08	25.01.08	26.01.08	27.01.08	28.01.08	29.01.08	30.01.08
Amritsar	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Barmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Sriganganagar	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Jaisalmer	00.0	00.0	00.0	00.0	00.0	00.0	00.0
Kota	00.0	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	24.01.08	25.01.08	26.01.08	27.01.08	28.01.08	29.01.08	30.01.08
Amritsar	7.0	7.0	7.0	7.0	8.5	9.5	10.5
Barmer	14.5	14.5	13.5	12.5	15.5	-	16.5
Sriganganagar	8.5	9.0	8.5	-	12.0	12.0	9.5
Jaisalmer	13.0	12.5	10.5	10.0	15.0	17.5	15.0
Kota	13.5	14.5	10.5	12.5	15.5	16.0	15.5
Deesa	15.0	14.0	-	15.5	16.0	16.0	16.5
Churu	-	-	-	-	-	-	-

Wind														
Station Name	24.01.08		25.01.08		26.01.08		27.01.08		28.01.08		29.01.08		30.01.08	
	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.
Amritsar	NW	03	ENE	08	-	-	-	-	NW	04	WSW	03	W	03
Barmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sriganga nagar	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Jaisalmer	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kota			SE	10	-	-	-	-	WSW	15	-	-	NW	11
Deesa	NW	07	WNW	15	-	-	-	-	-	-	WNW	15	NW	21
Churu	E	04	SE	06	-	-	-	-	WSW	17	-	-	NNW	17

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	Early sown wheat	Berseem
Vegetative / flowering	Flowering / capsule formation	Tillering	crown root initiation/ tillering	Vegetative
Gram	Barley			
Vegetative / flowering	Vegetative			
Haryana				
Sugarcane / Autumn sugarcane	Horticultural crops	Cotton	Wheat	Rabi Pulses
Vegetative	Vegetative	Picking	Vegetative	Vegetative
Rabi oilseeds	Toria	Sunflower		
Flowering	Fruiting	Germination		

Himachal Pradesh

Vegetables (Ladies finger/ Cabbage, Cauliflower)	Ladies finger	Barley	Gram	Wheat
Vegetative/ head formation	Flowering / 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	Vegetative			

Punjab

Sugarcane	Horticultural crop	Rabi Oilseeds	Irrigated toria	Sunflower
Vegetative	Vegetative	Flowering	Fruiting	Germination
Autumn sugarcane	Wheat	Rabi pulses	Rabi oilseeds	Cotton
Vegetative	Vegetative	Vegetative	Vegetative	Picking

Rajasthan

Wheat & barley	Gram	Early sown mustard, taramira	Potato	Early sown potato
Tillering	Flowering / pod formation	Pod formation	Planting	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	Tuber growth / maturity	Tillering

Assam

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

Arunachal Pradesh

Ginger	Rabi maize	Pea	Potato	Wheat
Harvesting	Cob formation	Harvesting	Tuber formation	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	Flowering / pod formation	sowing	Tuber formation	

Jharkhand

Pea, gram, potato	Litchi / Mango	Vegetables (Tomato, Brinjal, Bhendi)	Wheat	Mustard
Vegetative Pea – pod formation	Vegetative (tree)	Vegetative	Vegetative	Vegetative

Sikkim

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

West Bengal

Sugarcane	Arhar	Mustard / Rapeseed / gram / lentil	Potato	Sunflower
Cane development / early maturity	Pod development / maturity (Rabi arhar-vegetative / flowering)	Flowering / pod formation	Tuber formation	Vegetative
Boro rice	Early transplanted Boro rice	Wheat		
Transplanting	Early vegetative	Tillering		

Chattisgarh

Sugarcane	Rapeseed, mustard	Toria	Tomato, Brinjal, Chilli	Wheat
Cane development (Autumn sugarcane – Vegetative)	Branching / flowering	Pod formation	Vegetative / flowering / fruiting	Tillering / jointing
Rabi crops	Early sown rabi crops	Potato	Summer Rice	
Flowering / pod formation / grain filling	Germination / early vegetative / vegetative	Tuber formation	Transplanting	

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				
Preparation of nursery				

Maharashtra				
Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (Suru) (Madhya Maharashtra, Marathwada 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	Vegetative / ear head emergence / flowering	Pod formation / grain filling / grain maturity
Potato (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi onion (Madhya Maharashtra, Marathwada)	Maize (Konkan, Madhya Maharashtra, Marathwada & Vidarbha)	Gram (Madhya Maharashtra, Marathwada & Vidarbha)	Mango
Vegetative	Early vegetative	Vegetative	Branching / flowering / pod formation	Flowering
Wheat (North Konkan, Madhya Maharashtra, Marathwada & Vidarbha)				
early vegetative / crown root initiation / tillering				

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

Orissa				
Kharif vegetables	Sugarcane	Dalua rice	Arhar	Mung and urd
Vegetative / fruiting	New planting	Nursery sowing	Maturity	Vegetative / flowering
Oilseeds				
Vegetative / flowering				

Andhra Pradesh				
Rice	Early sown Rice	Kharif Cotton	Rabi red gram / Black gram / Groundnut / chillies	
Transplanting	Tillering	Picking	Vegetative	

Karnataka				
Sugarcane (Ratoon crop)	Annual sugarcane	Rabi Jowar/Maize	Rabi Sunflower, cotton	
Grand growth	Early vegetative / tillering	Grain development / maturity	Grain formation	

Kerala				
Rubber	Pepper	Puncha rice		
New planting	Harvesting	Tillering / panicle initiation		

Tamil Nadu				
Rice (Samba)	Sugarcane (Early, Mid season)	Special season sugarcane	Groundnut/Black gram/Green gram/Red gram	Coriander
Tillering	Cane development / maturity	Grand growth	Vegetative	Vegetative
Jowar/Bajra/Samai	Cotton	Maize		
Vegetative	Picking	Grain development		
