



Summary of Agromet Advisory Services for different States of the country
Issued by
Agricultural Meteorology Division, India Meteorological
Department, Pune, India

Thursday, 14th December, 2006

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

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

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

Punjab

Under the influence of passing western disturbance over Western Himalaya light to moderate rainfall has occurred at a few places in the State on 11th December.

Mainly dry weather is likely over the State.

Low temperature warning: Possibility of Ground frost likely at some places in the State for next 2-3 nights.

Advisories

- There was no significant rainfall in the State during last week and weather is likely to be mainly dry over the State for the next 3 days. Under the circumstances, apply irrigation to **sugarcane, gram, lentil and wheat**.
- Continue sowing of late varieties of **wheat** like Sonalika, WH- 291, 396, PBW 373,138 and RAJ-3765 utilising recent rainfall.
- Make necessary arrangements to protect the **rabi oilseeds, gram, lentil, wheat and vegetable** crops from cold / frost injury. Apply light irrigation and arrange for smoke around the field to prevent frost injury.
- Apply top dressed nitrogen to early sown **wheat** crop.

Haryana

Under the influence of passing western disturbance over western Himalaya light to moderate rainfall has occurred at a few places in the State on 11th December.

Mainly dry weather is likely over the State.

Low temperature warning: Possibility of Ground frost likely at some places in the next 2-3 nights.

Advisories

- There was no significant rainfall in the State during last week and weather is likely to be mainly dry over the State for the next 3 days. Under the circumstances, apply irrigation to **sugarcane, gram, lentil and wheat**.
- Complete sowing of **gram and lentil**. Continue sowing of late varieties of **wheat** i.e. Sonalika, WH- 291, 396, PBW 373,138 and RAJ-3765.
- Incidence of **shoot borer, top borer, gurdaspur borer, pyrilla, termite and red rot** is reported in **sugarcane**. To control **pyrilla** spray 600-800 ml malathion in 800 litres of water per acre.
- Make necessary arrangements to protect the **rabi oilseeds, gram, lentil, wheat and vegetable** crops from cold / frost injury. Apply light irrigation and arrange for smoke around the field to prevent frost injury.

Rajasthan

Weather remained dry in all the divisions of the State. Night average temperatures were generally normal in

Ajmer, Jaipur, Kota and Bikaner divisions and below normal by 2 to 3⁰C in Jodhpur and Udaipur divisions.

Mainly dry weather is likely over the State.

Warning: Cold wave conditions may occur at a few places in Bikaner and Jaipur divisions.

Advisories

- This is proper time for sowing of **barley**, **cumin** and **wheat**. Continue land preparation and sowing. Undertake seed treatment before sowing.
- Apply pre-sowing irrigation before sowing of **wheat**. Select from varieties GW-173,190, PBW-343, HD-2329, Raj-1482, 3077, 3765 etc. for sowing.
- Undertake intercultural operations in early sown **mustard** and **gram** to keep the field weed free. Top dress urea in mustard crop before light irrigation.

Uttar Pradesh

Light rain occurred at isolated places in **Bareilly**, **Kanpur**, **Lucknow** & **Faizabad** divisions on 11th December and very light rain occurred at isolated places in **Faizabad** divisions on 12th December. Weather was mainly dry in remaining divisions of the State.

Weather will be mainly dry in the State. Night temperatures are likely to be near normal over plains of West U.P. Fall in night temperatures likely over East U.P. during next 1-2 days.

Advisories

- Mainly dry weather is likely over the State for the next three days. Under the circumstance, apply irrigation to bring the soil moisture to its field capacity in **rabi oilseed**, **pulses** and **winter vegetable** crops.
- Continue weeding and hoeing along with top dressing of nitrogen in winter **vegetables**, **rabi oilseeds** and **pulses**.
- Sowing of **wheat**, late varieties of **gram** and **barley** crops may be completed.
- Harvesting of **sugarcane** may be continued.

Himachal Pradesh

The precipitation occurred at isolated places.

Isolated rain / snowfall is likely to occur over the State.

Advisories

- As there was no significant rain during last week in **Lahaul** and **Spiti**, **Sirmaur** and **Solan** districts of the State and isolated rain is likely to occur over the state for next three days, apply irrigation to **vegetable** crops, **gram** and early sown **wheat** and **barley** wherever crops are at vegetative stage in these districts.
- As remaining districts of the State received rain during last week, apply irrigation to the crops in these districts depending on soil profile stored moisture.
- Continue land preparation and nursery sowing and transplanting of **cauliflower** and **cabbage** in low and mid hills, sowing of **radish**, **turnip** and **carrot** and also sowing of **wheat** and **barley** in rainfed areas.
- Select varieties from HPW-42 and HS-295 for late sowing of **wheat**, and Vimal (HBL-113) Dolma; Sonu (HBL-87); Gopi (HBL-316); Harit HBL-276) for **barley**.
- As there is chance of occurrence of frost, farmers are advised to arrange for smoking around the field to save the crops from frost.

Uttaranchal

Light to moderate rain was recorded at many places on 11th December, light rain was recorded at isolated places

on 12th December & very light rain was recorded at isolated places on 10th December. Weather remained mainly dry during the rest of the period. Sky remained mainly clear to mainly cloudy during the period.

Mainly dry weather is likely over the State.

Advisories

- There was no significant rainfall during last week in the State except in **Udam Singh Nagar** and **Gahrwal Tehri** districts and mainly dry weather is likely over the State. Under the circumstances, apply irrigation to **mango**, **potato** and **wheat** crops to bring the soil moisture to its field capacity. Apply irrigation depending upon the soil profile stored moisture in the above mentioned districts.
- Carry out inter cultural operation, application of fertilizer and plant protection measures to **wheat** and **potato** crops.
- Apply light irrigation and arrange for smoke around the field to prevent cold injury in **potato** and **wheat**.
- Continue harvesting of matured crops of **toria**, **sugarcane** and **pea** on bright sunny days.

Jammu & Kashmir

Light to moderate rain / snow with heavy falls at isolated places on 11th December. Weather remained mainly dry on 12th & 13th December over J & K state.

Rain / Snow is likely to occur at isolated places over J & K State.

Advisories

- Apply irrigation and arrange for smoke near the field in Jammu division to safeguard the crops from cold / frost injury.
- Wipe out water droplets on the leaves by pulling rope from the two sides of field. This will prevent formation of ice crystals during night time.
- Continue sowing of **wheat**. Before sowing, undertake ploughing followed by planking to conserve moisture.
- Rouge out virus effected crops of **brinjal**, **tomato**, **cauliflower** and **cabbage** in **Jammu** division.

Delhi

Weather remained dry.

Mainly dry weather is likely over the State. Night temperatures are likely to be near normal.

Advisories

- As there was no significant rainfall during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **early sown vegetable crops** and **wheat** and also to **barley**, **gram**, **mustard** and **toria** to bring the soil moisture to its field capacity.
- Prepare land and continue transplanting of 4 – 6 weeks old varieties of **cauliflower**, **cabbage** and **knolkhol** plants.
- Prepare land and perform sowing of Japanese White, Reshmi and Pusa Himani varieties of **raddish**. Treat the seeds with Captan or Thairam or Dithane M- 45 @ 2 g / kg seeds.
- Prepare land and continue late sowing of **wheat**.
- Select varieties from HD-2285, Raj-3077 or 3765, UP 2338 and PBW-226 or 373 etc. for late sown **wheat**.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

Northeast monsoon was weak over the State on 12th December. Rain / thundershowers occurred at isolated places on 12th & 13th December and dry weather prevailed on 11th December.

Rain / thundershower is likely to occur at isolated places over the State.

Advisories

- There was no significant rainfall in the State during last week and rain / thundershower is likely to occur at isolated places only for the next three days. Under the circumstances, apply irrigation to **plantation crops** and **mundakan rice** to bring the soil moisture to its field capacity.
- Attack of **mahali** disease is reported in **arecanut**. Spray 1% Bordeaux mixture on fruit bunches and crown to control **mahali** disease.
- Attack of **pseudostem weevil** and **bunchy top** is reported in **banana**. Eradicate **bunchy top** affected plants to prevent further spread of the disease. Spray Quinalphos @ 0.05% or Chlorophyriphos @ 0.03% or Carbaryl @ 0.2%. Spraying / drenching may be done on all leaf axils, rhizome, surrounding soil and all around the entire pseudostem. Repeat the treatment after 3 weeks if infestation persists.
- Attack of **leaf folder**, **brown plant hopper**, **gall midge**, **stem borer**, **rice bug**, **sheath blight** and **bacterial leaf blight** is reported in **rice**. Spray 0.05% Monocrotophos or Quinalphos to control the pests and Malathion @ 2 ml/litre to control **bug**. Spray or drench the soil with *Pseudomonas fluorescence* 2% culture @ 1 kg per ha to control the diseases.
- Attack of **Leaf eating caterpillar**, **rhinoceros beetle**, **mite**, **red palm weevil** insects is reported in **coconut**. Fill the leaf axils with 25 g Sevidol 8G and fine sand 200 gm for controlling **red palm weevil** and **rhinoceros beetle**. Spray Dichlorvos @ 1ml per lit of water or use Mercaptothion followed by release of **pupal** and **larval** parasites available from bio-control lab, 21 days after spraying to control **leaf eating caterpillar**. Spray garlic-neem emulsion to control **mite**.
- Attack of **pollu beetle** and **quick wilt** has been reported in **pepper**. Avoid spraying chemicals as the crop is now at harvesting stage.

Tamilnadu

Rainfall occurred at many places over North Tamilnadu and at one or two places over South Tamilnadu on 11th December, at many places on 12th December and at one or two places on 13th December over the State.

Rain / thundershower is likely at isolated places over the State.

Advisories

- There was no significant rainfall in the State except in **Cuddalore**, **Kanchipuram**, **Nagappattinam**, **Thanjavur**, **Thiruvallur**, **Thiruvannamalai** and **Villupuram** districts and in **Pondicherry U.T.** and rain / thundershower is likely to occur only at isolated places in Tamil Nadu. Under the circumstances, apply irrigation to the standing crops to bring the soil moisture to its field capacity. Apply irrigation depending upon the soil profile stored moisture in the above mentioned districts.
- Weather conditions are favourable for the outbreak of pests and diseases, especially **BPH** and **blast**. Monitor the crop and undertake plant protection measures.
- Monitor **groundnut** for **red hairy caterpillar** and **leaf miner**. If the pests population crosses ETL, spray Monocrotophos @ 625 ml / ha to control **red hairy caterpillar**. Dust 4% Carbaryl or spray Methyl demeton @ 0.02% to control leaf miner.
- Continue land preparation and sowing of **cotton**, **pulses** and **sunflower**.
- Incidence of **internode borer** has been reported in **sugarcane**. Monitor the crop continuously as the weather conditions are favourable for further spread. Release *Trichogramma chilonis* @ 5 cc / ha parasite to control the pest. Repeat after 15 days.

Karnataka

Rainfall occurred at isolated places over South Interior Karnataka and mainly dry weather prevailed over Coastal Karnataka and North interior Karnataka on all the days.

Mainly dry weather is likely over the State.

Advisories

- Dry weather is likely to prevail for the next three days. Under the conditions, apply irrigation to early sown *rabi* crops like **jowar**, **wheat** and **maize** to bring the soil moisture to its field capacity.
- Harvest the matured *kharif* crops like **cotton** and **sugarcane** on bright sunny days.
- Attack of **army worm** has been reported in **sugarcane** in **Bidar** and **Bagalkote** districts in north interior Karnataka subdivision. Avoid spraying as the crop is now at harvesting stage.

Andhra Pradesh

Rain occurred at a few places over Rayalseema and isolated rain occurred over coastal Andhra Pradesh on 11th & 12th December. Dry weather prevailed elsewhere over the State during the week.

Mainly dry weather is likely to prevail over the State.

Advisories

- There was no significant rainfall during last week over the State except in **Nellore**, **Chittoor** and **Cuddapah** and mainly dry weather is likely to prevail for the next three days. Under the circumstances, apply irrigation to *rabi* crops like **gram**, **maize** and **groundnut** to bring the soil moisture to its field capacity. Apply irrigation depending upon the soil profile stored moisture in the above mentioned districts.
- Complete harvesting of **rice**, **tur** and **cotton** on bright sunny days.
- Incidences of *Spodoptera exigua* has been reported in **gram** in **Kurnool**, **Kadappa** and **Anantpur** districts. Spray Thiodecarb @ 1 g or Acephate @ 1 g or Chlorpyrifos @ 3 ml per liter of water to control the pest.

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

Assam

Weather was dry on 11th and light to moderate rain occurred at isolated places on 12th and at a few places on 13th December.

Mainly dry weather is likely over the State.

Advisories

- As there was rain in **Barpeta**, **Dhubri**, **East Garo Hills**, **Goalpara**, **Lakhimpur**, **Morigaon**, **Nalbari** and **Tinsukia** districts during last week in the State and mainly dry weather is likely over the State for the next three days, apply light irrigation to **wheat**, **rapeseed** and **mustard** and early sown **vegetables**, **potato**, **pea** and **lentil**.
- As there was no significant rain in remaining districts during last week in the State, apply irrigation to the crops.
- Mild incidence of **Pod and apion borer** in **arhar**, **aphids**, **jassids**, **flea beetle** and **leaf spot** in **black gram** and **green gram**, **aphids** and **saw fly** in **mustard** and **late blight** in **tomato** is reported.
- Monitor **aphids** and **saw fly** in **mustard** and if crosses economic threshold level, spray Rogor or malathion @ 2ml per litre of water.
- Monitor **late blight** of **tomato** and if crosses economic threshold level, spray Indofil M-45, alternatively Indofil Z-78 @ 25 gm in 10 litres of water.
- Continue land preparation and sowing of **winter vegetables**, **potato**, **pea** and **lentil** and **transplanting of rice**.
- Maintain 2 – 3 cm water in the **rice** field after 2 -3 days of transplanting.

West Bengal

Weather will be mainly dry over the State. Fall in night temperatures likely over the State during next 1 – 2 days.

Advisories

- As there was no significant rainfall in most of the districts of the State during last week and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane, rapeseed and mustard, gram and lentil, wheat** and also to early sown **potato** wherever crops are at vegetative stage.
- Monitor blight disease in **wheat** and in the event of occurrence of this disease, apply Mancozeb @ 2.5 g per liter of water and spray 2 times at an interval of 7 days.
- Land should be prepared and nursery sowing of **boro rice** may be carried out.
- Select varieties from CR-126-42-1, Khitish, IE-2233, PNR 381, IR-36, Lalat, Annada, Aditya, Tulsi etc. for short duration and Shasyasri, Prakash, Kunti, Ajaya, Pratap, Suraksha etc. for medium duration **boro rice**.

Bihar

Weather remained mainly dry.

Mainly dry weather is likely over the State. Fall in night temperatures likely over the state during next 1-2 days.

Advisories

- There was no significant rainfall during last week and mainly dry weather is likely over the State for next three days. Under the circumstances, apply required irrigation to bring the soil moisture to field capacity in **vegetables, maize, pulses, oilseeds and wheat**.
- Continue transplanting of early **cauliflower, chillies, brinjal** from ready seedling and sowing of winter **vegetables**.
- Continue field preparation and sowing of late sown **wheat and potato**.
- Weeding / thinning and top dressing operation may be continued in **rabi maize, pulses / oilseed** and earlier sown **vegetable** crops.
- To save **Boro rice** seedlings from cold injury apply light irrigation and in night protect it by polythene cover or thatch cover.

Jharkhand

Weather remained mainly dry.

Mainly dry weather is likely over the State. Fall in night temperatures likely over the State during next 1-2 days.

Advisories

- There was no rainfall during last week and mainly dry weather is likely over the State for next three days. Under the circumstances, apply required irrigation to bring the soil moisture to field capacity in **vegetables, maize** and early sown **potato and wheat** crops.
- Continue field preparation, sowing / transplanting of **onion, tomato, cabbage, cauliflower, brinjal, chilli, potato, garlic and pea**.
- Sowing of **rabi pulses, oilseeds and wheat** may be continued.
- Weeding, intercultural operation, application of fertilizer may be continued in early planted **vegetable, maize and potato** crops.

Sikkim

Sky remained partly cloudy during the period. No rain occurred during the period over East Sikkim.

Mainly dry weather is likely over the State. Fall in night temperature over the region during next 1-2 days.

Advisories

- There was no significant rainfall during last week and dry weather is likely to prevail over the State for the

next three days. Under the circumstances, apply irrigation to **vegetables** to bring the soil moisture to its field capacity.

- Continue harvesting of **orange**.
- Continue sowing of **wheat**. Collect pre-treated healthy & certified seeds for sowing and apply recommended organic manure viz. FYM and compost before sowing.
- Undertake intercultural operations in **rabi vegetables** and **mustard** to keep the field weed free.

Arunachal Pradesh

Isolated rain / thundershowers are likely over the State during next 24 hours and mainly dry weather thereafter.

Advisories

- There was excess rainfall in the State except in **East Kameng, Lower Subansiri, Tirap** districts during last week and isolated rain/thundershowers are likely during next 24 hours and mainly dry weather thereafter. Under these conditions, apply irrigation to the standing crops depending on the soil profile stored moisture. Apply irrigation to bring the soil moisture to its field capacity in the above mentioned districts.
- Sowing of **wheat** may be completed.
- First top dressing in early sown **potato** (33 Kg Urea / ha) followed by earthing up and spray with 1.25 Kg Dithane M-45 in 500 lit water may be continued.

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

Gujarat

Weather remained dry during the period.

Mainly dry weather is likely over the State.

Advisories

- As there was no significant rain in the State during last few weeks and weather will be mainly dry over the State for next three days, apply irrigation to **pre-monsoon irrigated cotton, Kharif cotton, castor, mustard and wheat** to bring the soil moisture to field capacity.
- If population of sucking pests like **Aphids, Jassids, Thrips & Heliothis** crosses economic threshold level in **cotton**, release chrysoperla eggs or first instar larvae @ 10000 / ha twice at the interval of 15 days.
- There is mild chance of attack of aphids, mustard saw fly and jassids in **mustard**. If aphid population exceeds economic threshold level, spray pesticides phosphamidon @ 4 ml or dimethoate @ 10 ml or monocrotophos @ 12.5 ml in 10 liter water as per requirement. Second spray 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 continue late sowing of **wheat** crop. Select varieties from Lok-1, Gw-173 (150 kg seeds / ha) for late sowing of irrigated wheat. Apply basal fertilizer dose 60 kg Nitrogen, 60 kg phosphorus / ha at the time of sowing.

Chhattisgarh

Weather remained dry in most of the districts of the State 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 week and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane and vegetables** and also to early sown **gram**,

linseed, safflower, mustard, wheat, potato and *toria* wherever crops are at vegetative stage.

- Continue preparation of land and sowing of linseed, safflower, mustard, *toria* and wheat and planting of new crop of sugarcane.
- Select varieties from Kanchan, Bilasa, G.W.-273, Lok-1, Sujata, Ratna etc. for sowing of wheat and CO-62175, C.O.L.K.-8001 etc. for planting of sugarcane.

Maharashtra

Mainly dry weather prevailed all over the State.

Mainly dry weather will prevail all over the state.

Advisories

- As there was no significant rain during last week in the State and mainly dry weather is likely over the State for next three days, apply irrigation to *kharif* cotton, tur and Cotton (irrigated) crops and also to *rabi* jowar, safflower, *rabi* maize, sunflower, potato, onion, gram, sugarcane (Pre-seasonal) and early sown crops of wheat.
- Mild incidence of White Woolly Aphids in Aurangabad, Latur, Kohlapur and Pune and Pyrilla, White fly and Mealy bug in Nashik in sugarcane, Rice hispa & Midge fly in Nagpur division in *Kharif* rice, Aphids and Jassids in Vidarbha, Boll worm in Latur, Nashik and Amravati div. in irrigated cotton and Aphids and Jassids in Aurangabad and Vidarbha division in *kharif* cotton and leaf roller in Nagpur, pod borer in pune, Aurangabad, Amravati and Latur division in tur, Aphids and Leaf cater pillar in Nashik division and Sugary disease in Latur and Pune division in *rabi* jowar and downy mildew in Grapes in Nasik, Pune, Solapur, Sangli and some other districts is reported.
- Monitor aphids and jassids population in cotton and if crosses economic threshold level, spray methyl dimeton 25EC @ 320 ml or dimethoate 30EC @ 500 ml / ha in 500 liter water.
- Monitor Boll worm in cotton and if exceeds economic threshold level, spray 36 % Monocrotophos WSC or 35 % Endosulphan WSC @ 850 ml / ha in 500 liter water.
- Monitor leaf roller population in tur and if crosses economic threshold level, spray 1000 ml endosulphon / ha in 500 liter water.
- Monitor pod borer population in tur and if crosses economic threshold level, spray 5% Neem extract or 20 to 25 ml Fenvalerate / ha in 100 liter water.
- Monitor infested plant by Sugary disease, aphids in *rabi* jowar & if exceeds economic threshold level, spray 5% Neem extract or Diamethoate 500 ml or Methyl Dimeton 400 ml or Monocrotophos 300 ml / ha in 500 liter water.
- For the control of downy mildew on Grapes, spray 0.2 to 0.4 % Bordeaux mixture @ 250 gm in 100 liter water at 10 days interval. For powdery mildew alternate spraying of Tridimefon @ 100 ml or water soluble Sulpher @ 200 gm in 100 liter may be done at 10 days interval.
- Continue field preparation and late sowing of wheat.
- Select varieties like HI 977, HD 2501 and NIAW 34 for late sown wheat.

Madhya Pradesh

Dry weather prevailed over the State.

Mainly dry weather is likely over the State.

Advisories

- There was no significant rainfall in all the districts during the last few weeks and mainly dry weather is likely to prevail for the next three days over the State. Under the circumstances, apply irrigation to early sown *rabi* crops like wheat, gram, mustard to bring the soil moisture to its field capacity.

- Undertake intercultural operations like weeding in early sown *rabi* crops like **gram, mustard, wheat, masoor, linseed** etc., to keep the field weed free.
- Monitor **gram** and **mustard** for pests and diseases. If it crosses ETL, undertake plant protection measures.

Orissa

Weather was dry over the State during the above period.

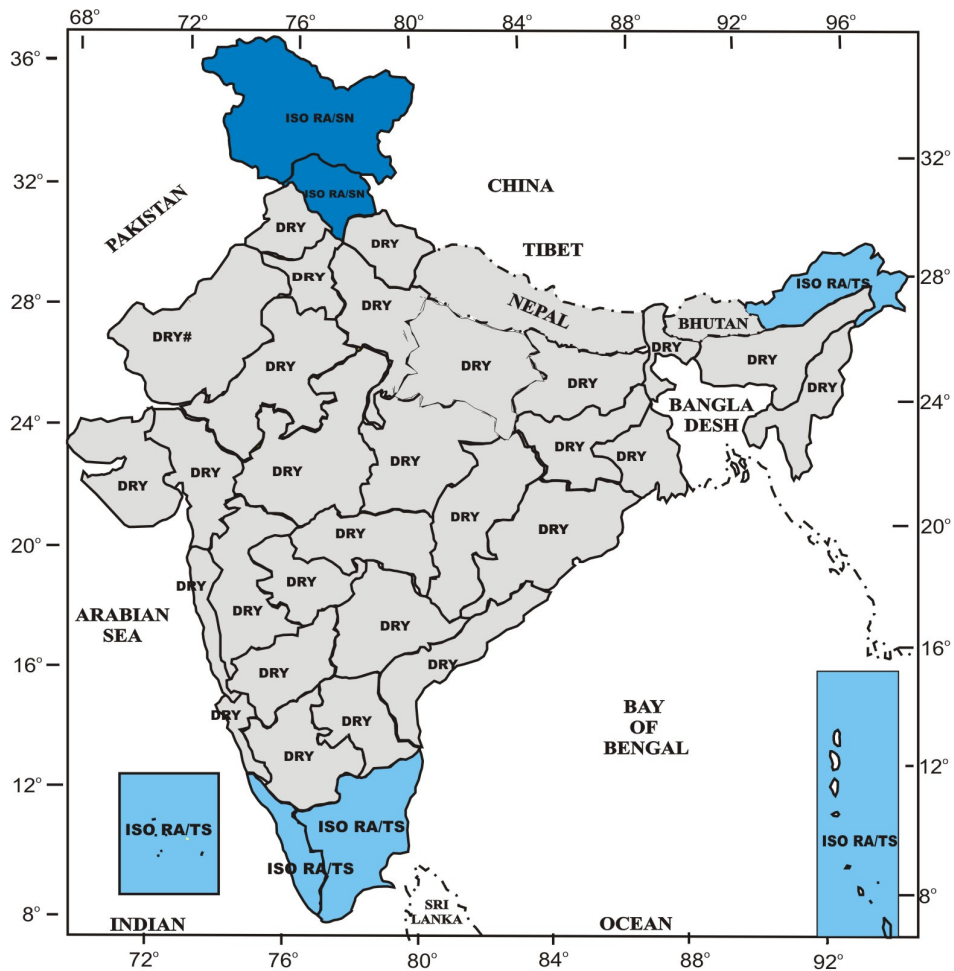
Mainly dry weather is likely over the State. Fall in night temperatures likely over the state during next 1-2 days.

Advisories

- There was no rainfall in all the districts during last few weeks and mainly dry weather is likely over the State for next 3 days. Under the circumstances, apply required irrigation to **mustard, vegetables, groundnut** and **sugarcane** to bring the soil moisture to field capacity.
- Weather conditions are favourable for the incidences of **saw fly** in **mustard**. Monitor the crop and spray Endosulfan @ 2 ml / litre of water to control the pests if it crosses ETL.
- Monitor **brinjal** for *Epilachna* beetle and if it crosses ETL, spray Carbaryl @ 4 g / litre of water.
- Continue harvesting of **matured, rice, vegetables, sugarcane** and **pulse** crops.

Forecast Map

Valid upto 17th December



ISO - Isolated, TS - Thunder shower/storm, SN - Snow,
RA - Rain, DRY - No rain, SC - Scattered, MOD-Moderate,
SQ - Squall, HA- Hail. DS - Dust Storm, FW - Fairly Widespread
* - With heavy Rain warning, # fog condition

Salient weather features for the week ending 13/12/06

METEOROLOGICAL ANALYSIS

- Western disturbance as an upper air system affected the Western Himalayan region during 7-8th. Another western disturbance also affected this region during 10-11th. Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim and northeastern States were also affected due to the eastward movement of this system.
- Last week's trough in mid-tropospheric westerlies moved away eastwards. However, a fresh trough in mid-tropospheric westerlies ran roughly along Long. 72° E and north of Lat 20° N on 10th, along Long. 75° E and north of Lat 20° N on 11th and moved way eastwards thereafter.
- A weak easterly wave moved across south peninsular region during the week.

RAINFALL

Under the influence of the above systems:

- Fairly widespread rain/snowfall occurred over Jammu & Kashmir on 7th & 11th and over Himachal Pradesh and Uttaranchal on 11th. Isolated/scattered rain/snowfall also occurred over Jammu & Kashmir, Himachal Pradesh and Uttaranchal on 8th, 10th & 12th.

- Isolated rain/thundershower occurred over Punjab and Western Uttar Pradesh on one or two days of the week.
- Light rainfall occurred at a few places over Sub-Himalayan West Bengal & Sikkim on 12th. Light rainfall also occurred at isolated places over East Uttar Pradesh and Bihar during 11-12th.
- Light to moderate rain/thundershower occurred at a few places over northeastern States during 12-13th.
- Fairly widespread/scattered rain/thundershower occurred over Tamil Nadu & Pondicherry during 10-13th. Scattered/isolated rainfall also occurred over south Coastal Andhra Pradesh, Rayalaseema and South Interior Karnataka during 11-12th. Scattered/isolated rain/thundershower occurred over Andaman & Nicobar Islands during many days of the week.
- Weather was mainly dry over remaining parts of the country during the entire week.

MINIMUM TEMPERATURES

- Cold wave conditions prevailed over southwest Rajasthan during many days of the week.
- The minimum temperatures were below normal by 1-3°C over northwest Rajasthan, Punjab and Haryana on many days of the week. The below normal temperature condition also prevailed over some more parts of northwest India and some parts of east India during 12-13th.
- They were above normal by 3-6°C over Central India and adjoining areas during 7-11th.
- They were below normal by 1-3 °C over many parts of south peninsula during 7-11th and were above normal by 2-4°C during 12-13th.
- They were above normal by 2-3°C over northeastern States during the week.

RAINFALL DURING THE WEEK ENDING ON 13TH DECEMBER, 2006

Rainfall was excess / normal in 12 and deficient / scanty in 8 and no rain in 16 out of 36 meteorological sub-divisions (Actual: 4.1 mm, Normal: 4.1mm and Departure: 0%).

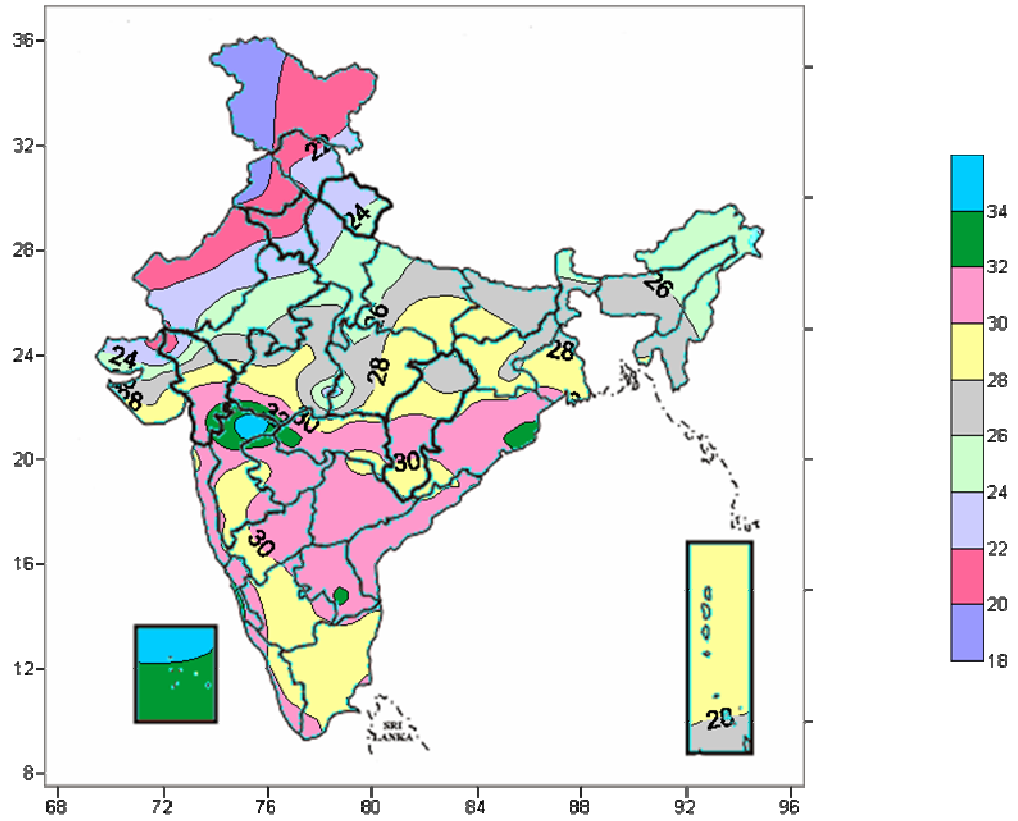
CUMULATIVE SEASONAL RAINFALL (1ST OCTOBER TO 13TH DECEMBER, 2006)

Rainfall was excess / normal in 13 and deficient / scanty in 23 out of 36 meteorological sub-divisions. (Actual: 98.2 mm, Normal: 115.4 mm and Departure: -15%).

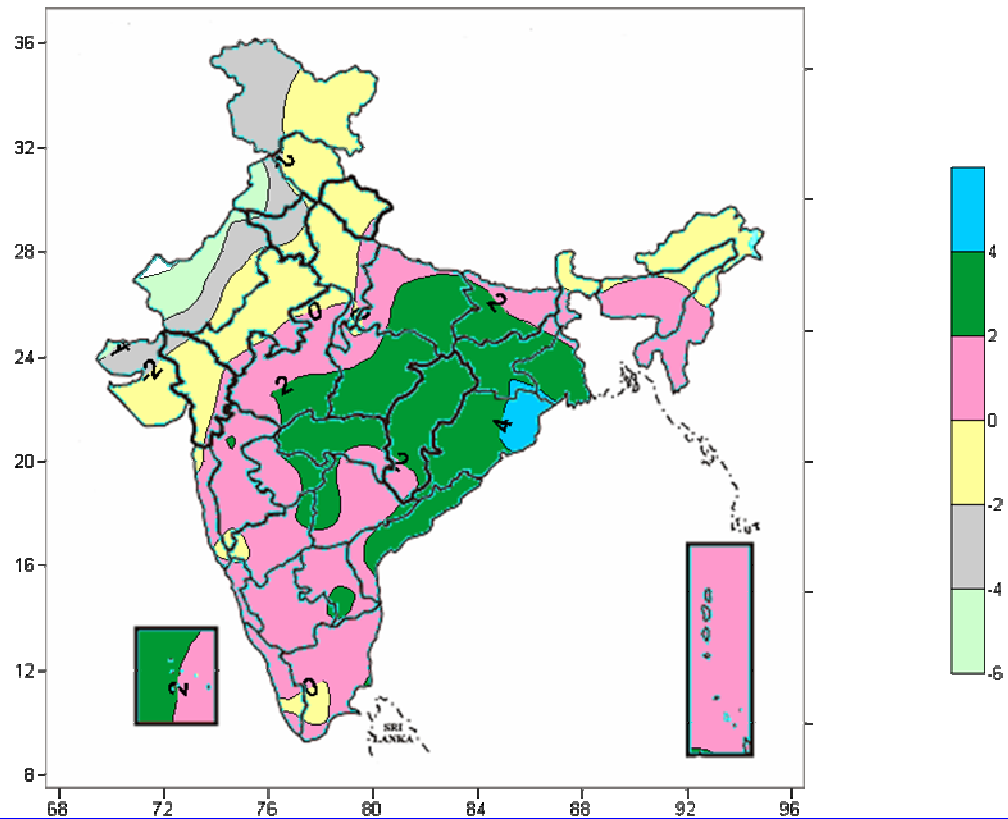
OUTLOOK FOR THE WEEK ENDING ON 20TH DECEMBER, 2006.

- Subdued rainfall activity over south peninsula.
- A fresh western disturbance is likely to affect Western Himalayan region during the week.
- No significant change in minimum temperature over plains of northwest India and Gangetic plains.

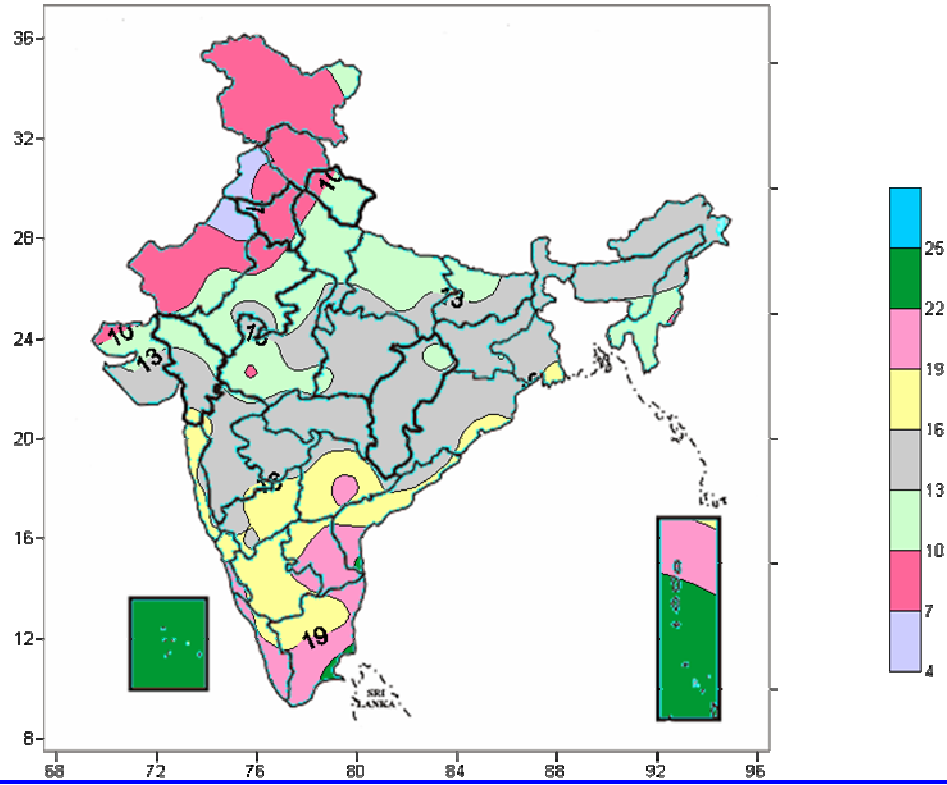
Actual mean maximum Temperature ($^{\circ}\text{C}$) in India for the week ending 13.12.06



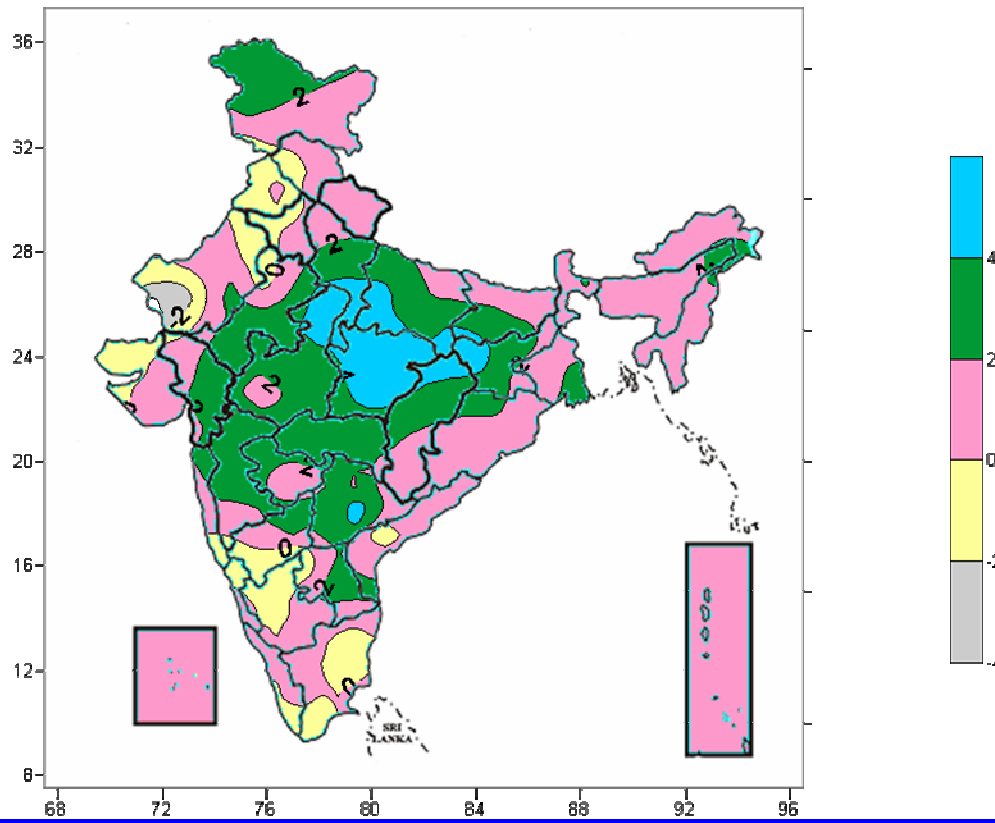
Maximum Temperature ($^{\circ}\text{C}$) Anomaly In India for the week ending 13.12.06



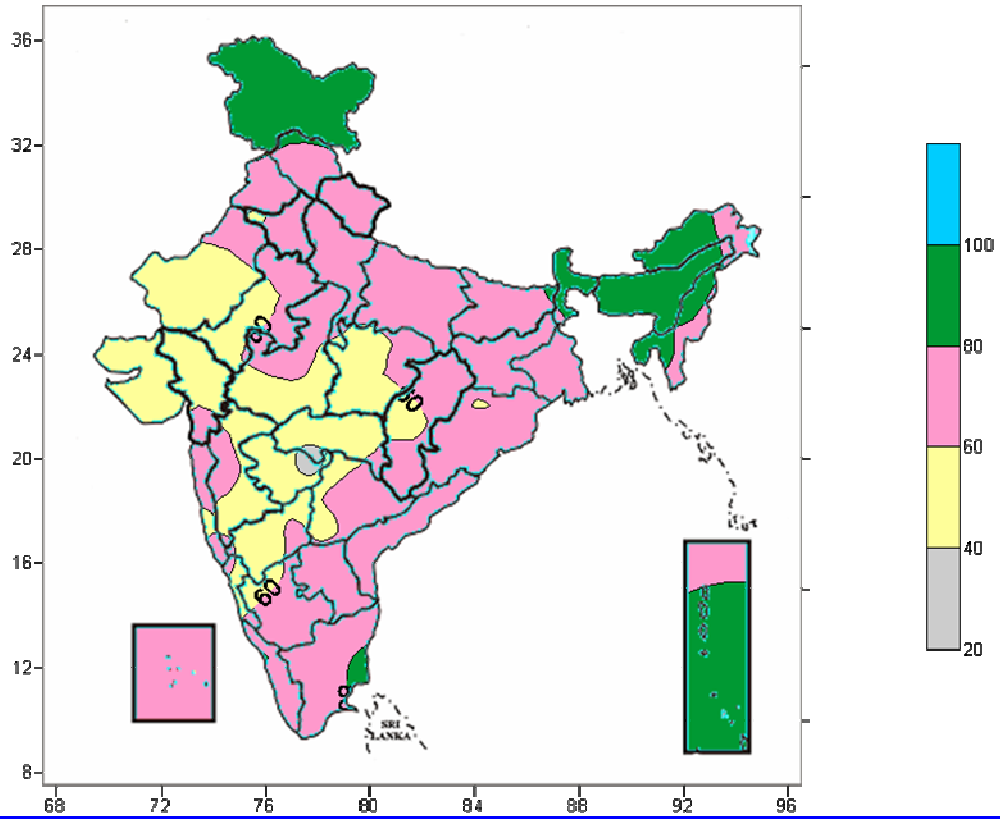
Actual mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 13.12.06



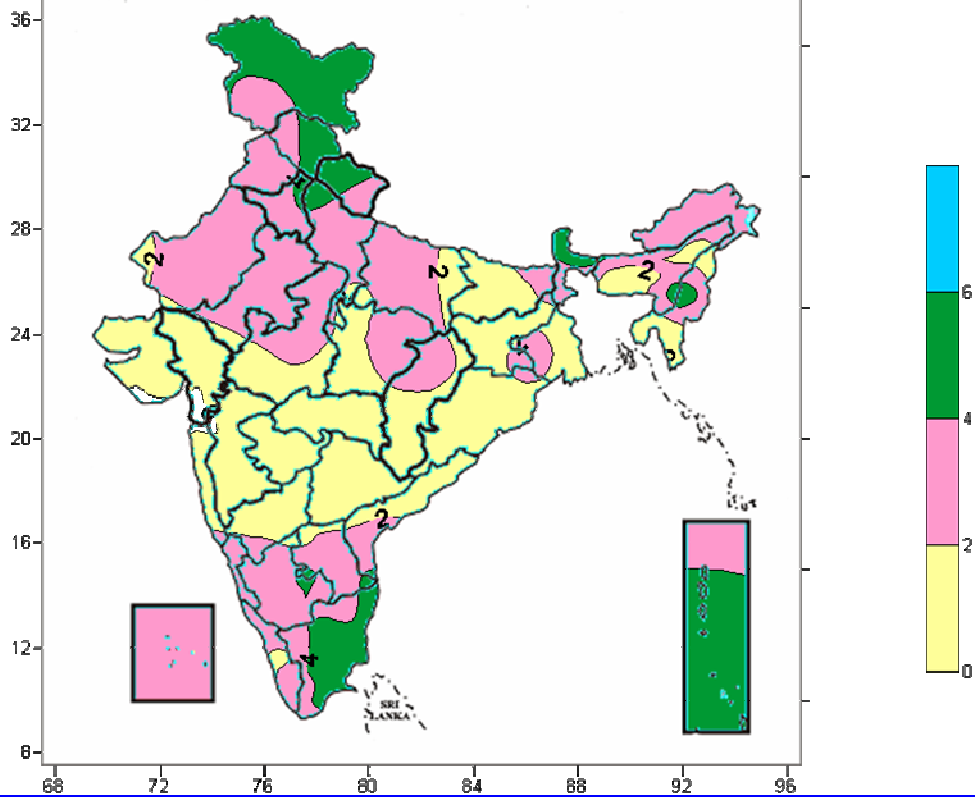
Minimum Temperature ($^{\circ}\text{C}$) Anomaly in India for the week ending 13.12.06



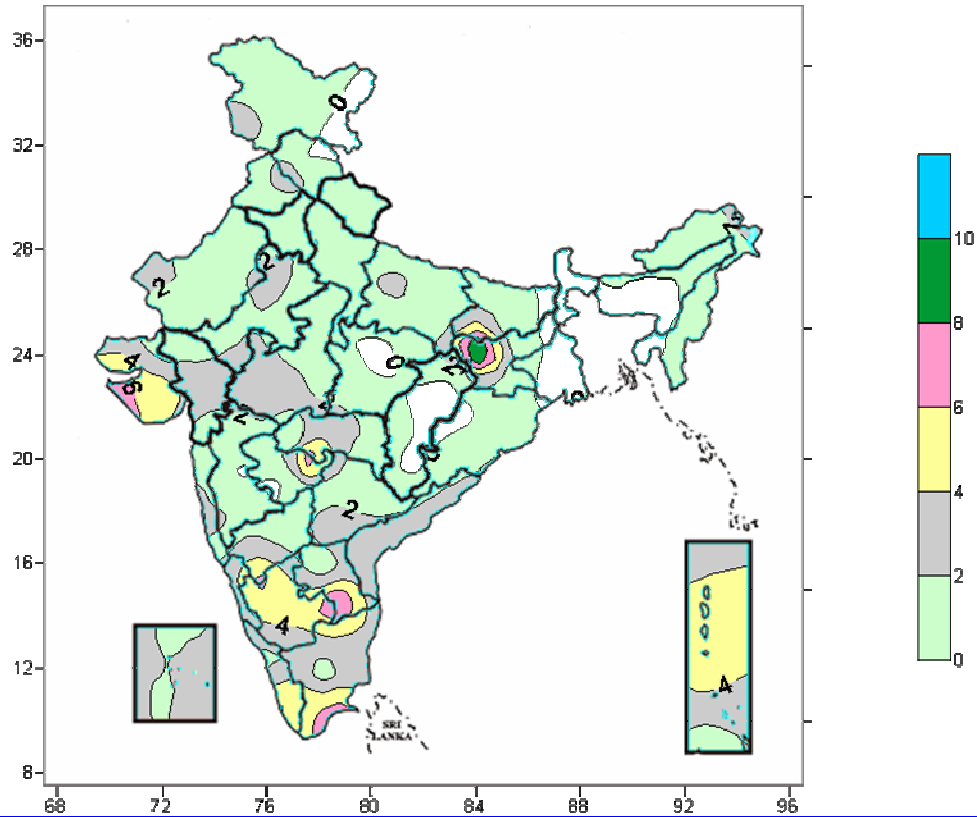
Relative humidity (%) over India for the week ending 13.12.06



Cloud amount (okta) over India for the week ending 13.12.06



Wind speed (knots) over India for the week ending 13.12.06



Desert Locust Forecasting



Rainfall (mm)							
Station Name	7.12.06	8.12.06	9.12.06	10.12..06	11.12.06	12.12.06	13.12.06
Amritsar	NIL						
Barmer							
Sriganganagar							
Jaisalmer							
Kota							
Deesa							
Churu							

Temperature (degree celcius)							
Station Name	7.12.06	8.12.06	9.12.06	10.12..06	11.12.06	12.12.06	13.12.06
Amritsar	11.0	-	12.0	12.5	-	-	-
Barmer	-	13.0	13.5	15.0	15.5	15.5	15.5
Sriganganagar	13.0	12.5	12.5	14.0	13.5	13.0	13.5
Jaisalmer	14.0	13.0	13.5	-	16.0	16.5	16.5
Kota	23.5	-	20.0	19.0	20.5	18.0	17.0
Deesa	-	20.5	-	19.0	-	18.5	20.0
Churu	-	-	-	-	-	-	-

Wind

Station Name	7.12.06		8.12.06		9.12.06		10.12.06		11.12.06		12.12.06		13.12.06	
	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.	Speed	Dir.
Amritsar	-	-	-	-	-	-	-	-	07	ENE	-	-	07	NW
Barmer	05	WNW	-	-	-	-	-	-	08	WSW	06	N	04	N
Sriganga nagar	05	SSW	12	NW	-	-	-	-	11	NW	-	-	08	NW
Jaisalmer	05	NNW	13	N	-	-	-	-	08	NW	03	SW	06	WNW
Kota	04	SSW	08	SSW	-	-	-	-	15	WNW	05	NNW	07	NW
Deesa	19	SW	-	-	-	-	-	-	06	WNW	03	SE	03	N
Churu	20	SSW	10	WSW	-	-	-	-	-	-	13	NW	07	NNW

There is no chance of locust infestation in Rajasthan and the adjoining areas during this week.

CROP – STATE – STAGE

Delhi

Toria	Vegetables (Brinjal, Chilly, Cauliflower and cabbage, raddish, carrot, and turnip)	Early sown vegetable crops	Wheat	Gram
Flowering/Pod formation	Sowing/ Transplanting	Vegetative/ flowering/ fruiting/ harvesting	Late Sowing	Early vegetative/ Vegetative
Barley	Mustard		Early sown Wheat	
Early vegetative/ Vegetative	Vegetative		Germination / crown root initiation	

Haryana

Horticultural crop	Sugarcane	Gram /Lentil	Rabi oilseeds	Wheat
Early vegetative	Vegetative	Seedling/early vegetative	Seedling/early vegetative	Sowing/early vegetative

Himachal Pradesh

Wheat	Gram	Summer vegetables (Cauliflower, Cabbage in low and mid hills)	Vegetables (Tomato, brinjal, ladies finger)	Barley
Land preparation/sowing	Vegetative	Nursery sowing /Transplanting	Vegetative/flowering / fruiting / harvesting	Land preparation/ Late sowing
Early sown Wheat		Early sown Barley	Vegetables Radish, Turnip, Carrot	
Germination/Early vegetative/Crown root initiation		Germination/ Early vegetative/vegetative	Sowing	

Jammu & Kashmir

Vegetable crops	Toria	Mustard	Gram/ Field Pea	Wheat
Early vegetative / vegetative	Vegetative	Vegetative/flowering	Vegetative	Sowing
Brown sarson	Early sown Wheat	Pea / Lentil		
Vegetative	Seedling/early vegetative	Vegetative		

Punjab

Sugarcane	Rabi oilseeds	Gram/Lentil	Horticultural crop	Wheat
Vegetative	Early vegetative	Early vegetative	Early vegetative	Sowing / early vegetative

Rajasthan

Cotton	Mustard	Wheat	Gram	Barley
End picking	Early vegetative/vegetative	Late sowing	Early vegetative/vegetative	Late sowing
Early sown Barley	Early sown Mustard	Cumin	Early sown Wheat	Early sown Cumin
Early vegetative/vegetative	Early vegetative/vegetative	Land preparation/sowing	Early vegetative/vegetative	Early vegetative/vegetative

Uttar Pradesh

Wheat/Barley	Rabi pulses	Sugarcane	Early sown Wheat/Barley	Winter Vegetables
Sowing	Vegetative	Cane maturity / harvesting	Seedling	Vegetative

Mango	Rabi Oilseeds(Rai and Mustard)	Kharif Vegetables	Toria	
Active growth/matured tree	Vegetative	Harvesting	Flowering/Seed formation	
Uttaranchal				
Pea	Mango/Litchi	Wheat	Sugarcane	Toria
Pod formation/maturity	Active growth	Crown root initiation/tillering	Maturity	Pod formation/Maturity
Potato				
Tuber growth				
Assam				
Early sown Vegetables	Sugarcane	Wheat	Vegetables	Balck gram and Green gram
Vegetative	Cane maturity / harvesting	Early vegetative/Crown root initiation	Land preparation / sowing	Pod maturity
Sali rice	Arhar	Rape seed and Mustard	Early sown Pea, Lentil and Potato	Pea, Lentil and Potato
Harvesting	Maturity	Vegetative/flowering	Early vegetative	Land preparation/sowing
Early sown Wheat	Boro Rice			
early vegetative / crown root initiation stage	Tansplanting			
Arunachal Pradesh				
Mustard	Ginger	Potato	Wheat	Winter vegetables
Early vegetative	Vegetative	Early vegetative	Crown root initiation	Vegetative
Bihar				
Fruits and Vegetables	Winter vegetables	Wheat	Early sown Wheat	Rabi Maize
Vegetative	Sowing / transplanting	Sowing	Germination to early vegetative	Vegetative/Flowering
Boro Rice	Potato	Rabi Oil seeds (Toria, Sarson, Linseed)	Rabi Pulses (Lentil, Gram, Pea)	
Field preparation/nursery sowing	Early vegetative	Early vegetative	Vegetative	
Jharkhand				
Rice	Rabi Maize	Wheat/Early sown Wheat	Potato/ Early sown Potato	
Harvesting	Early vegetative /Vegetative	Field preparation, sowing /Germination, early vegetative	Field preparation , Sowing/Early vegetative	
Rabi vegetables (Tomato, Cabbage, Cauliflower, Brinjal, Chilli)	Early planted vegetables	Rabi pulses and oilseeds	Rabi pulses and oilseeds Arhar/Mustard	
Transplanting, (Sowing- Onion, Pea, Potato)	Early vegetative / vegetative	Seedling/early vegetative	Arhar-Vegetative/flowering Mustard – Early vegetative	
Sikkim				
Orange	Mustard	Rabi vegetables	Early sown Wheat	Wheat
Harvesting	Vegetative	Vegetative	Early vegetative/vegetative	Sowing
West Bengal				
Boro rice	Sugarcane	Wheat	Aman rice	Rape seed and Mustard
Field preparation / nursery sowing	Cane development	Early vegetative / crown root initiation	Harvesting	Vegetative
Gram/ Lentil	Early sowing Wheat	Potato	Early sowing Potato	
Vegetative	Germination / early vegetative / crown root initiation	Sprouting / early vegetative / vegetative	Sprouting / early vegetative	
Chattisgarh				
Gram	Vegetables (Tomato, chilli, brinjal)	Sugarcane	Kharif rice	Linseed, Safflower, Mustard, Toria
Germination/Early vegetative/branching	Vegetative	Cane development	Harvesting	Field preparation/sowing

Early Sown Gram	Early Sown Linseed, Safflower, Mustard, Toria	Potato	Onion	New crops Sugarcane
Early vegetative	Early vegetative	Sprouting/early vegetative/vegetative	Field preparation and Transplanting	Planting
Early sown Potato	Wheat	Early sown Wheat		
Early vegetative/vegetative	Land preparation and Sowing	Germination/early vegetative/Crown root initiation		

Gujarat

Mustard	Wheat	Pre-monsoon irrigated Cotton	Castor	Sugarcane
Vegetative/flowering	Land preparation/sowing	Boll formation / picking	Flowering/ Pod formation	Maturity/Harvesting
Kharif Cotton	Early Sown Wheat	Summer Rice		
Square / boll formation	Germination / early vegetative/crown root initiation	Preparation of rice nursery		

Maharashtra

Rabi Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	Tur (Madhya Maharashtra, Marathwada & Vidarbha)	Irrigated Cotton	Sugarcane (Seasonal) (Madhya Maharashtra, Marathwada and Vidarbha)	Rabi Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)
Vegetative/Flag leaf initiation	Pod formation/pod maturity/harvesting	Boll formation /boll maturity/picking	cane maturity/harvesting	Vegetative/Floral bud formation
Potato (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif cotton (Madhya Maharashtra, Marathwada & Vidarbha)	Potato (Madhya Maharashtra, Marathwada & Vidarbha)	Kharif rice (Konkan)	Kharif rice (Madhya Maharashtra, Marathwada & Vidarbha)
Field preparation/planting	Boll formation/ boll maturity/picking	Early vegetative/early tuberization	(late varieties) Harvesting	Grain maturity/harvesting
Gram (Madhya Maharashtra, Marathwada & Vidarbha)	Wheat (Madhya Maharashtra, Marathwada & Vidarbha)	Onion (Madhya Maharashtra, Marathwada & Vidarbha)	Early sown Gram (Madhya Maharashtra, Marathwada & Vidarbha)	Early sown Wheat (Madhya Maharashtra, Marathwada & Vidarbha)
Branching/Flowering	Field preparation / Late sowing/	Early vegetative/vegetative(Early sown crops-bulb formation)	Pod formation	Germination/seedling/ crown root initiation/tillering
Safflower (Madhya Maharashtra, Marathwada & Vidarbha)	Maize (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Early sown Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	
Vegetative	Knee high /Tasseling / Silking	Sprouting/early vegetative	Sprouting/early vegetative	

Madhya Pradesh

Wheat	Mustard	Gram	Masoor	Linseed
Early vegetative/vegetative	Early vegetative/vegetative	Early vegetative/vegetative	Early vegetative/vegetative	Early vegetative/vegetative
Irrigated Wheat				
Seedling/Early vegetative				

Orissa

Vegetables	Kharif Rice	Mustard	Pulses	Early sown pulses
Flowering/Fruiting/Harvesting	Harvesting	Vegetative/Flowering	Vegetative (Biri / Mung / Kulthi)	Pod maturity
Sugarcane	Rabi Groundnut			
Maturity	Vegetative			

Andhra Pradesh

Kharif rice	Kharif crops Tur	Gram	Cotton	Rabi Maize
End harvesting	End harvesting,	Vegetative	End picking	Vegetative
Rabi Groundnut				
Vegetative				

Karnataka

Sunflower	Sugarcane (Ratoon crop & new crop)	<i>Early sown</i> Rabi jowar, wheat and maize		Kharif cotton
Early vegetative	End Harvesting	Vegetative		End Picking

Kerala

Rubber	Mundakan rice	Pepper		
Tapping	Grain formation	Harvesting		

Tamil Nadu

Early sown Pulses (Black gram and green gram)	Millets	Cotton	Early & mid sugarcane	Early sown oilseeds
Vegetative	Vegetative	Sowing	Maturity/early harvesting	Early vegetative/vegetative
Early sown Rice (Samba)	Rice (Samba)	Pulses (Blach gram and Green gram)	Oilseeds (Groundnut,)	Early sown Cotton
Early vegetative/ Vegetative	Transplanting	Sowing	Vegetative	Early vegetative/vegetative
Sunflower	Early sown Sunflower			
Sowing	Early vegetative/Vegetative			
