



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

Thursday, 16th November, 2006

(For the period 16th to 20th November, 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 Uttaranchal)

Punjab

Weather remained mainly dry in the State during the period with some cloudiness in northern district. In view of approaching western disturbance in western Himalaya there is possibility of cloudiness/light rain at isolated places in northeastern districts in next 2-3 days.

Mainly dry weather is likely over the State.

Advisories

- There was no rain in the State during last week and weather is likely to be mainly dry over the State for the next three days. Under the circumstances, apply required irrigation to **sugarcane, gram, lentil** and **wheat** to bring the soil moisture to its field capacity.
- Continue sowing of **wheat, lentil, gram** and **rabi oil seeds**. Use the certified seeds of recommended varieties i.e. WH-542, 147, 157, 711, C-306 (Barani Conditions) and PBW-343, WH-711, WH-423 S onak PBW-373 (Irrigated conditions) for **wheat**. Select *desi* and *kabuli* varieties for gram.

Haryana

Weather was mainly dry in the State during the period.

Mainly dry weather is likely over the State.

Advisories

- There was no rain in the state during last week and weather is likely to be mainly dry over the State for the next three days. Under the circumstances, apply required irrigation to **sugarcane, gram, lentil** and **wheat** to bring the soil moisture to its field capacity.
- Continue sowing of **wheat, gram, lentil** and **rabi oil seeds**. Use the certified seeds of recommended varieties i.e. WH-542, 147, 157, 711, C-306 (Barani Conditions) and PBW-343, WH-711, WH-423 Sonak PBW-373 (Irrigated conditions) for **wheat**. Select *desi* and *kabuli* varieties for gram.
- Apply recommended dose of fertilizer at sowing time. Destroy the canes affected by **stem borer** & **gurdaspur borer** and to control **pyrilla** or whitefly spray 600-800 ml malathion in 800 lit of water per acre.

Rajasthan

Weather remained dry in all divisions of the state.

Mainly dry weather is likely over the state.

Advisories

- Continue harvesting of matured crops of **cotton**.
- This is proper time for sowing of **barley, mustard, gram, cumin** and **wheat**. Continue land preparation and sowing. Undertake seed treatment before sowing.
- Apply pre sowing irrigation before sowing of **wheat**. Select among GW-173, 190, PBW-343, HD-2329,

Raj-1482,3077,3765etc.forsowing.

UttarPradesh

Weather was mainly dry in all divisions of the State from 13th to 15th November.

Weather will remain dry over the State

Advisories

- There was no significant rain fall in the State during last week and mainly dry weather is likely over the State for the next three days. Under the circumstances, apply irrigation to bring the soil moisture to its field capacity in **rabioilseed** and **winter vegetable** crops.
- Continue weeding and hoeing along with top dressing of nitrogen in winter **vegetables** and **rabioilseeds**.
- Sowing of **rabiwheat**, **barley** and **fodder crops** may be completed.
- Complete sowing of **rabipulses** and oilseed **mustard** and **rai**.
- Transplanting of winter vegetables **cauliflower**, **brinjal**, **chilli** and **tomato** may be continued.
- Harvesting of matured **rice**, **sugarcane**, **pulses**, **groundnut** and **kharif vegetables** may be continued.

Himachal Pradesh

The weather was dry during the week in the State.

Mainly dry weather is likely over the State.

Advisories

- As there was no rain during last two weeks, apply irrigation to **vegetable** crops.
- Continue land preparation and sowing of **Aricle peas** in the high hills, transplanting of **cauliflower** and **cabbage** and sowing of **wheat**, **gram**, **barley**, **radish**, **turnip** and **carrot**.
- Select varieties from VL 616, HS 277, PBW-343 for early sown, HPW-89, HS-240, HPW-147, HPW-184 for timely sown and HPW-42, HS-295 for late sown **wheat**, Himachal Chana-1; C-235; HPG-17 for **gram** and Vimal (HBL-113) Dolma; Sonu (HBL-87); Gopi (HBL-316); Harit HBL-276 for **barley**.

Uttaranchal

Weather remained mainly dry during the period. Sky remained mainly clear to partly cloudy during the week.

Mainly dry weather is likely over the State.

Advisories

- There was no significant rain fall during last week and mainly dry weather is likely over the State. Under the circumstances, apply irrigation to **mango**, **litchi**, **pea**, **toria**, **potato** and **sugarcane** crop to bring the soil moisture to its field capacity.
- Continue sowing of **wheat**.
- Continue harvesting of matured **rice** and **finger millet** crop.

Jammu & Kashmir

Moderate rain/snow occurred at many places with heavy fall in isolated places on 13th November. Weather remained mainly dry on 14th & 15th over J&K State.

Isolated rain/snow is likely over the State during next 24 hours and at a few places subsequently during next 48 hours.

Advisories

- Apply irrigation in Kashmir division to safeguard the crops from cold injury.
- Continue sowing of **carrot**, **beetroot** and **turnip** for seed crop in Jammu division and sowing of crops like **Methi**, **Palak**, **Coriander**, **raddish** etc. in Kashmir division. Continue nursery sowing for **onion**.
- Continue sowing of **brown sarson** (Kashmir division), **gram** (Jammu division), **mustard**, **pea**, **lentil**, **toria**

and wheat to utilize residual moisture. Before sowing, undertake ploughing followed by planking to conserve moisture.

- Prevailing weather conditions in Jammu division may be favourable for the infestation of flea beetle in toria crop. Monitor the crop and if damage exceeds ETL, spray the crop with Carbarthyl 150 WP @ 2 gm/litre or Malathion @ 0.05% on a non-rainy day.

Delhi

Weather remained dry.

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 next three days, apply irrigation to early sown vegetable crops, 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 and Reshmi varieties of raddish, Pusa kanchan, Golden Ball and Pusa Chandram varieties of turnip and Bonabilla variety of peas and nursery sowing of N53 and Pusa Red varieties of onion. Treat these seeds with Captan or Thiram or Dithane M-45 @ 2 g/kg seeds.
- Prepare land and continue sowing of wheat, gram and barley.
- Select varieties from HD-2329, HD-2009, WL-74, HD-3428, CPAN and PBW-215 for wheat, P-209, Pusa-408, Gaurav C-235 and K-851 (Kabuli chana) for gram and Jyoti, BG 25, D-70 and Ratna for barley for sowing.

Southern Region (AP, Tamilnadu, Karnataka and Kerala)

Kerala

Rain/thunder showers occurred at a few places in Kerala during the period.

Rain/thunder showers are likely at many places over the State.

Heavy Rain Warning: Isolated heavy rainfall is likely during next 48 hours.

Advisories

- As rain/thunder showers are likely at many places over the State, postpone irrigation to the standing crops.
- Arrange for drainage facilities in case of heavy rainfall.
- Attack of leaf folder, brown planthopper, stem borer, gall midge, sheath blight and bacterial leaf blight is reported in mundakkan rice. Spray 0.05% Monocrotophos or Quinalphos after current spells of rain to control insect pests and 2% *Pseudomonas fluorescens* culture @ 1 kg/hatto control the disease.
- Attack of leaf eating caterpillar, red palm weevil, leaf rot and bud rot disease and mite is reported in coconut. Fill the leaf axils with 25 gm., sevidol 8 G and fine sand 200 gm to control red palm weevil. Spray 1% Bordeaux mixture on spindle leaves and crown to control leaf and bud rot. Spray Dichlorovos @ 1 ml per litre 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 caterpillars. Spray garlic-neem emulsion to control mites. Spraying chemicals may be undertaken after current spells of rain.
- Attack of poll beetle and quick wilt is reported in pepper. Spray Ekalux @ 2 ml in one litre of water to control beetle. Spray and drench with 1% Bordeaux mixture to control wilt. Undertake these plant protection measures after current spells of rain.
- Pink disease is reported in rubber. Apply 1% Bordeaux paste after current spells of rain to control the disease.

- Attack of **bunchy top** and **pseudostem weevil** is reported in **banana**. Eradicate bunchy top affected plants to reduce the spread of the disease. Apply Phorate @ 25 g/pit before planting new crop to prevent further spread of the disease. Fill the leaf axils with Chlorophyriphos @ 2.5 ml/litre of water after current spells of rain to control **pseudostem weevil**.
- Weeding, intercultural operations, application of fertilizers and new planting may be continued after current spells of rain.

Tamilnadu

Northeast monsoon has been active over the State. Rainfall occurred at most places over Coastal Tamilnadu and at a few places over Interior Tamilnadu on 13th November, at many places over Coastal Tamilnadu and at one or two places over Interior Tamilnadu on 14th November at many places over Coastal Tamilnadu and at a few places over Interior Tamilnadu on 15th November.

Rain/thunder showers are likely at many places over the State.

Warning: Isolated heavy rainfall is likely during next 48 hours.

Advisories

- As rain/thunder showers are likely at many places with isolated heavy rainfall over the State, postpone irrigation to **early/mid sugarcane** and **millet**s.
- Due to heavy rainfall during last few weeks, arrange for drainage facilities to avoid crop damage. Apply current spells of rain and after removal of excess water.
- Cloudy weather conditions are favourable for the outbreak of pests and diseases, particularly for **BPH** and **blast**. Monitor the crop and undertake plant protection measures after current spells of rain.
- Incidence of **internode borer** has been reported in **Sugarcane**. Monitor the crop continuously as the weather conditions are favourable for further spread. Release *Trichogramma chilonis* @ 5 cc/ha parasite after current spells of rain to control the pest. Repeat after 15 days.
- Continue nursery sowing/transplanting of **sambar rice**.
- Continue intercultural operations, application of fertilizers and pesticides after current spells of rain.
- Continue land preparation and sowing of **cotton, pulses** and **groundnut** and **sunflower** after current spells of rain.

Karnataka

Rainfall occurred at isolated places on 15th November and dry weather prevailed on the remaining days over the State.

Rain/thunder showers are likely at a few places over south Interior or Karnataka and at isolated places over coastal & north Interior Karnataka.

Advisories

- Conserve moisture in the field wherever the crops are at maturity stage.
- Harvest the matured **kharif crops** 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.
- Continue land preparation and sowing of **rabijowar**, **sunflower**, **wheat** and **maize**.

Andhra Pradesh

Rain occurred at a few places over Coastal Andhra Pradesh on 9th & 10th November and isolated rain occurred over Coastal Andhra Pradesh on 11th November, from 13th to 15th November over Telangana and Rayalaseema from 9th to 11th November and also over Rayalaseema from 13th to 15th November. Dry weather prevailed over the State during the week.

Rain/thundershowers are likely at many places over south Coastal Andhra Pradesh; at a few places over north Coastal Andhra Pradesh, Rayalaseema and isolated over the rest region.

Warning: Isolated heavy rain fall is likely over South coastal Andhra Pradesh.

Advisories

- Conserve moisture in the field wherever the crops are at maturity stage.
- Arrange for drainage facilities in coastal Andhra Pradesh as heavy rainfall is likely to occur at isolated places.
- Incidences of **pod borer** have been reported in **red gram**. Spray Dichlorvas @ 2.5 ml/litre of water in **Telangana**. Spraying may be undertaken after spells of rain in south Coastal Andhra Pradesh and on a non rainy day in north Coastal Andhra Pradesh and Rayalaseema.
- Continue harvesting matured **maize, cotton** and **chillies** on bright sunny days.

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

Assam

Excess rain occurred in Darrang, Dibrugarh, East Garo Hills, East Khasi Hills, Kamrup, Lakhimpur, Morigaon, Nalbari, Sonitpur and Tinsukia districts during last week.

Mainly dry weather is likely over the State.

Advisories

- As there was excess rain in **Darrang, Dibrugarh, East Garo Hills, East Khasi Hills, Kamrup, Lakhimpur, Morigaon, Nalbari, Sonitpur and Tinsukia** districts during last week, postpone irrigation in these districts.
- As there was no significant rainfall during last week in remaining districts and mainly dry weather is likely over the State for the next three days, apply irrigation to **black gram, green gram, rapeseed** and **mustard** to bring the soil moisture to field capacity.
- Maintain 5 – 7 cm water level in **Sali rice** field wherever crops are at early maturity stage. Drain out standing water 10-15 days before harvesting.
- Mild incidence of **Pod and apion borer** in **arhar**, **aphids**, **jassids**, **flea beetle** and **leaf spot** in **black gram** and **green gram** and **aphids** and **sawfly** in **mustard** is reported.
- Monitor **Pod and apion borer** in **arhar** and if crosses economic threshold level, spray Malathion 50 EC @ 1.5 ml per litre of water or Fenitrothion 50 E.C. @ 2 ml per litre of water.
- Monitor **Aphids**, **Jassids**, **Flea beetles** in **black gram** and **green gram** and if crosses economic threshold level, spray Malathion 50 EC @ 2 ml per litre of water. For **leaf spot**, as soon as diseases appear, spray Blitox or Fitolan @ 1.5 gram per litre of water at an interval of 7 to 10 days. Alternatively Bavistin @ 1 gram per litre of water should be applied at an interval of 12 to 15 days.
- Monitor **aphids** and **sawfly** in **mustard** and if crosses economic threshold level, spray Rogor or malathion @ 2 ml per litre of water.
- Continue land preparation and sowing of **winter vegetables, rapeseed, mustard, potato, wheat, pea** and **lentil**.

West Bengal

During the said period weather was mainly dry throughout the State.

Mainly dry weather is likely over the state.

Advisories

- As excess rain occurred in Bankura, Birbhum, Burdwan, Murshidabad, Purulia, Coochbehar, Darjeeling, Jalpaiguri and Malda districts of the State, postpone irrigation in these districts.
- As there was no significant rainfall in the remaining districts of the State during last week and mainly dry

weather is likely to prevail for next three days, apply irrigation to sugarcane to bring the soil moisture to its field capacity.

- Maintain 5–7 cm water in aman rice field wherever crops are at grain formation stage. Drain out water from the field 10–15 days before harvesting.
- Continue harvesting of matured crops of aman rice and groundnut on bright sunny days.
- Land should be prepared and sowing of bororice, gram, lentil, wheat, rapeseed and mustard may be done.
- Select varieties from CR-126-42-1, Kshitish, 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 bororice, Mahamaya 1 & 2, Anuradha (39-2) etc. for gram and Sonalika, UP 262, HP 1209, 1633, K 8804, PW 11 etc. for wheat.

Bihar

Light to moderate rain had occurred at isolated places.

Mainly dry weather is likely over the State.

Advisories

- 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.
- Continue transplanting of early cauliflower, chillies, brinjal from ready seedling and sow winter vegetables.
- Harvest the matured rice crop.
- Continue field preparation and sowing of rabi maize, pulses, oilseeds, wheat and potato with available residual moisture.

Jharkhand

Weather remained mainly dry.

Mainly dry weather is likely over the State.

Advisories

- 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.
- Harvest the matured rice crop.
- Continue field preparation, sowing/transplanting of onion, tomato, cabbage, cauliflower, brinjal, chilli, potato and pea.
- Sowing of rabi pulses, oilseeds, maize, potato and wheat may be continued.

Sikkim

No rain occurred during the period.

Mainly dry weather likely over the State.

Advisories

- There was no significant rainfall during last week and dry weather is likely to prevail over the State for next three days. Under the circumstances, apply required irrigation to vegetables to bring the soil moisture to its field capacity.
- Continue harvesting of large cardamom, orange and rice.
- Continue sowing of wheat, mustard and transplanting of rabi vegetables.

Arunachal Pradesh

Weather was mainly dry over the State .

Mainly dry weather is likely over the State.

Advisories

- There was no significant rainfall except in **Changlang, East Kameng, Lower Subansiri, Papumpara and West Stang** districts during last week and mainly dry weather is likely over the State for next three days. Under these conditions, apply irrigation to bring the soil moisture to field capacity to new crop of **ginger, early sown potato and winter vegetables**. Apply irrigation depending on soil profile stored moisture in the above mentioned districts.
- Field preparation and sowing of **potato, wheat and mustard** may be continued.
- First top dressing in early sown **potato** (33 Kg Urea/ha.) followed by earthing up and spraying with 1.25 Kg. Dithane M-45 in 500 Lit. water may be done.

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

Gujarat

Weather remained dry during last week.

Weather will be mainly dry over the State.

Advisories

- As there was no significant rain in the State during last few weeks and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane, pre-monsoon irrigated cotton, Kharif cotton, castor and mustard** to bring the soil moisture to field capacity.
- Continue harvesting of **kharif rice** and **kharif groundnut**.
- For monitoring & management of **boll worm & heliothis** of **cotton** hang 5 pheromone traps in one ha. Change the lures at an interval of 15 days. Destroy trapped moths every day. If boll worm population crosses economic threshold level, release parasite *tricogramma* @ 1.5 lakhs / ha 5 to 6 times as per requirement depending upon infestation found in field.
- If **whitefly** population crosses economic threshold level in **cotton**, spray Neemoil @ 4 liter/ha.
- Prepare land and continue sowing of **wheat** crop. Select varieties from Lok-1, GW-496 (125-130 kg seeds/ha), GW-190 (100 kg seeds/ha), GW-503, 273, 322 (125 kg seeds/ha), Raj-1555 (durum) (150 kg seeds/ha) for normal sowing and Lok-1, Gw-173 (150 kg seeds/ha) for late sowing of irrigated wheat and GW-1, A-206 (50-60 kg seeds/ha) for sowing of non-irrigated wheat. Apply basal fertilizer dose 60 kg Nitrogen, 60 kg phosphorus/ha for irrigated wheat and 20 kg Nitrogen for unirrigated wheat in furrow at the time of sowing.

Chhattisgarh

Mainly dry weather is likely over the State.

Advisories

- As there was no significant rainfall in almost all the districts during last week and mainly dry weather is likely over the State for next three days, apply irrigation to **sugarcane and vegetables**.
- Maintain 5-7 cm water in **rice** field wherever crops are at grain formation stage. Drain out water from the field 10-15 days before harvesting.
- Continue preparation of land and sowing of **gram, linseed, safflower, mustard and toria**.
- Seeds of **gram** may be treated with 2 to 2.5 gm Thiram/Captan/kg seeds & 250g **mRhizobium+PSB**/10 kg seeds before sowing.

Maharashtra

Mainly dry weather prevailed all over the state.

Mainly dry weather is likely over the state.

Advisories

- As there was no significant rain during last week in most of the districts and mainly dry weather is likely over the State for next three days, apply irrigation to Sugarcane, *kharif* cotton, tur and Cotton (irrigated) crops.
- Mild incidence of White Woolly Aphids in Aurangabad, Latur, Kohlapur and Pune and Pyrilla, Whitefly and Mealybug in Nashik in sugarcane, Rice hispa & Midgefly in Nagpur division in *Kharif* rice, Aphids and Jassids in Aurangabad and Boll worm in Latur, Nashik and Amravati div. in irrigated cotton and Aphids and Jassids in Aurangabad and Vidarbha division in *kharif* cotton and leafroller in Aurangabad and podborer in Latur division in tur is reported.
- Monitor White Woolly Aphids in sugarcane and if crosses economic threshold level, release 2500 eggs or larvae of *Krisoperla Karnea* or *Konobatra Aphidivora* parasite on the leaves or spray Endosulphan @ 500 ml plus Metasitox 1000 ml and 500 ml sticker or 1 kg detergent powder mixed in 500 liter water/ha.
- Monitor infested plants by *Hispa* in rice & if exceeds economic threshold level, spray Copper oxychloride 50% @ 1250 gm or Zyneb 75% @ 1000 gm in 500 liter water.
- Monitor infested plants by Midge fly in rice & if exceeds economic threshold level, 10 % granular Phorate/hamayb mixed in the soil.
- Monitor aphids and jassids population in cotton and if crosses economic threshold level, spray methyl dimeton 25EC @ 320 ml or dimethoate 30EC @ 500 ml/hain 500 liter water.
- Monitor Bollworm in cotton and if exceeds economic threshold level, spray 36% Monocrotophos WSC or 35% Endosulphan WSC @ 850 ml/hain 500 liter water.
- Monitor leafroller population in tur and if crosses economic threshold level, spray 1000 ml endosulphon/hain 500 liter water.
- Monitor podborer population in tur and if crosses economic threshold level, spray 5% Neem extractor 20 to 25 ml Fenvalerate/hain 100 liter water.
- Continue field preparation and sowing of wheat, gram and planting of sugarcane (Pre-seasonal), potato and onion.
- Select varieties like HD 2189, 2278, 2380, DWR 162, MACS 2496, Tryambak, Godawari for irrigated wheat, Vikas, Fule-G 12, Vishwas, Vijay & Vishal, Virat for gram, CO-740, CO-7219, CO-86032, CO-M-88121 for sugarcane (Pre-seasonal), Kufari-Sinduri, Kufari-Lavkar, Kufari-Chandramukhi for potato and N-2-4-1, Pusared, Arkaniketan (for *rabi* planting), Fule suvarna (for export) & Agri white-1, Fule safed, N-257-9-1 varieties (for powder) for onion.

Madhya Pradesh

Weather was mainly dry.

Mainly dry weather is likely over the State.

Advisories

- Conserve moisture in tur as the crop is now at maturity stage.
- Continue land preparation and sowing of *rabi* crops like wheat, gram, mustard.
- Before sowing, undertake seed treatment with Carbendazim @ 1.5 grams and Thiram @ 1.5 grams or *Trichoderma viridi* @ 5 grams for 1 kg of seed.

Orissa

Weather was mainly dry.

Mainly dry weather is likely over the State.

Advisories

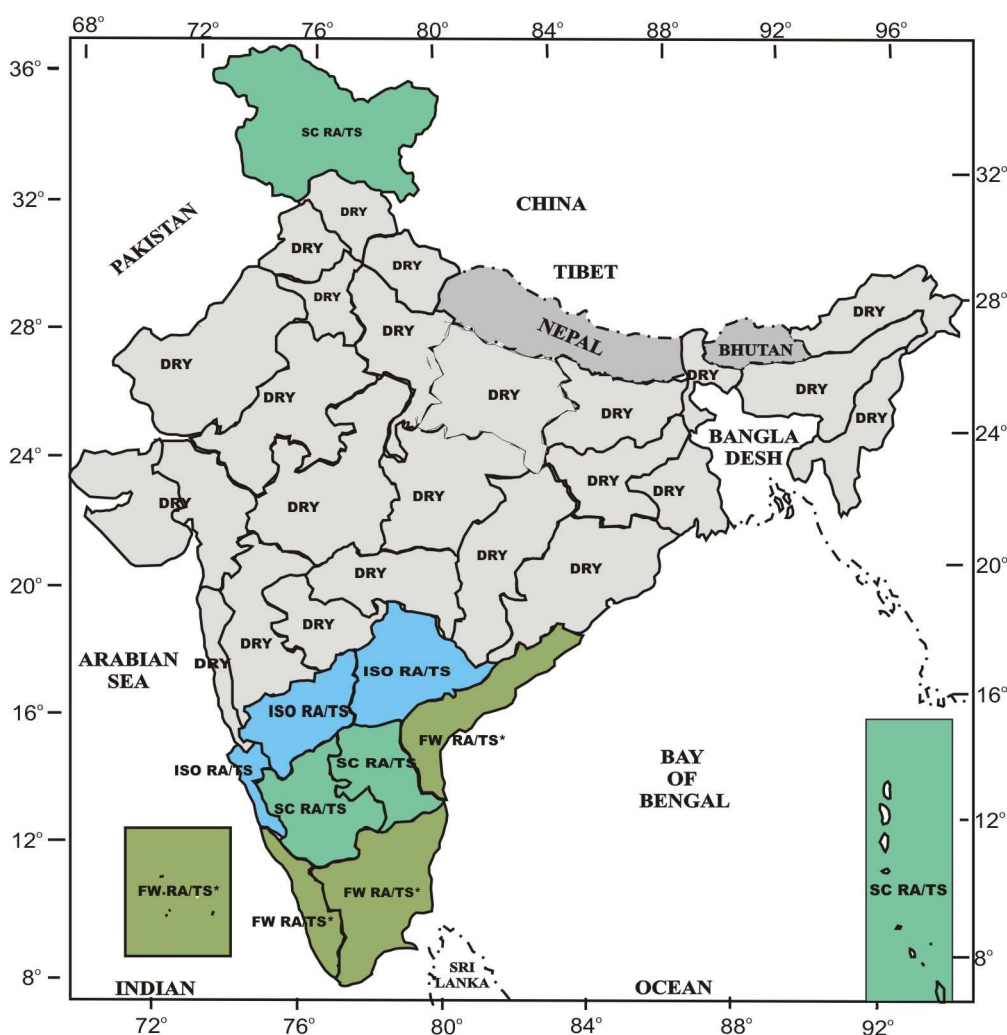
- There was excess rainfall except in Bargarh, Bhadrak, Boudhgarh, Gajapati, Ganjam, Jagatsingpur, Jharsuguda, Kandhamal, Kendrapara, Koraput, Malkangiri, Nawapara, Sambalpur, Sonapur and

Sundargarh districts during last week. Under the circumstances, postpone irrigation to the standing crops. Mainly dry weather is likely over the State for next 3 days. Therefore, apply irrigation to bring the soil moisture to field capacity in the above mentioned districts.

- Continue transplanting of vegetables.
- Field preparation and sowing of rabigrroundnut, mung, kulthi, field pea and mustard may be done.
- Harvest the matured rice crop.
- To manage the Epilachna beetle in brinjal spray Carbaryl @ 4 gm/litre of water.
- To manage the Bacterial Wilt in vegetables spray Streptocycline @ 1 gm/10 litre of water.
- To manage the mealybug, scale insects and whitefly and internode borer in sugarcane spray Endosulfan / Monocrotophos / Malathion @ 2 ml per litre of water.

Forecast Map

Valid upto 19th November



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

Salient weather features for the week ending 15/11/06

METEOROLOGICAL ANALYSIS

- The easterly waves affected the south peninsular region during the entire week. It also affected adjoining north peninsula and coastal Orissa during a few days of the week.
- The western disturbance as an upper air system affected Jammu & Kashmir during 9th to 13th.
- The upper air trough in westerlies at 500 hPa level roughly ran along 78°E upto 20°N on 9th. Moving slowly eastwards, it ran along 82°E upto 20°N on 13th along 84°E upto 20°E on 14th and became less marked on 15th.

RAINFALL

Under the influence of the above systems:

- Fairly widespread rainfall occurred over Tamil Nadu & Pondicherry, Kerala and south Coastal Andhra Pradesh on many days of the week. Fairly widespread rainfall also occurred over north Coastal Andhra Pradesh during 9th to 10th. Isolated heavy rainfall also occurred over Tamil Nadu on 9th & 12th and Coastal Andhra Pradesh on 9th & 15th. Isolated to scattered rainfall activity occurred over remaining parts of the peninsula during many days of the week.
- Fairly widespread/scattered rainfall activity occurred over coastal Orissa during 9-10th and it was isolated over remaining parts of eastern India during 10-11th.
- Scattered rainfall activity occurred over northeastern States during 10-12th and it was isolated on 9th and 13th.
- Scattered/isolated precipitation was realized over Jammu & Kashmir during many days of the week.
- The weather was mainly dry over remaining parts of the country during the week.

TEMPERATURES

- The night temperatures remained above normal over most parts of the country except peninsular India during the week. However, they were appreciably/markedly above normal over northwest India during many days of the week. They were above normal by 8-9°C over west Rajasthan on 8th November.
- The night temperatures were normal over most parts of the Peninsula during the week except that they were below normal by about 2°C over some places in the western parts of the peninsula during 11-13th.

RAINFALL DURING THE WEEK ENDING ON 15TH NOVEMBER, 2006

Rainfall was excess/normal in 15 and deficient/scarcity in 12 and no rain in 9 out of 36 meteorological sub-divisions (Actual: 7.2 mm, Normal: 6.5 mm and Departure: +11%).

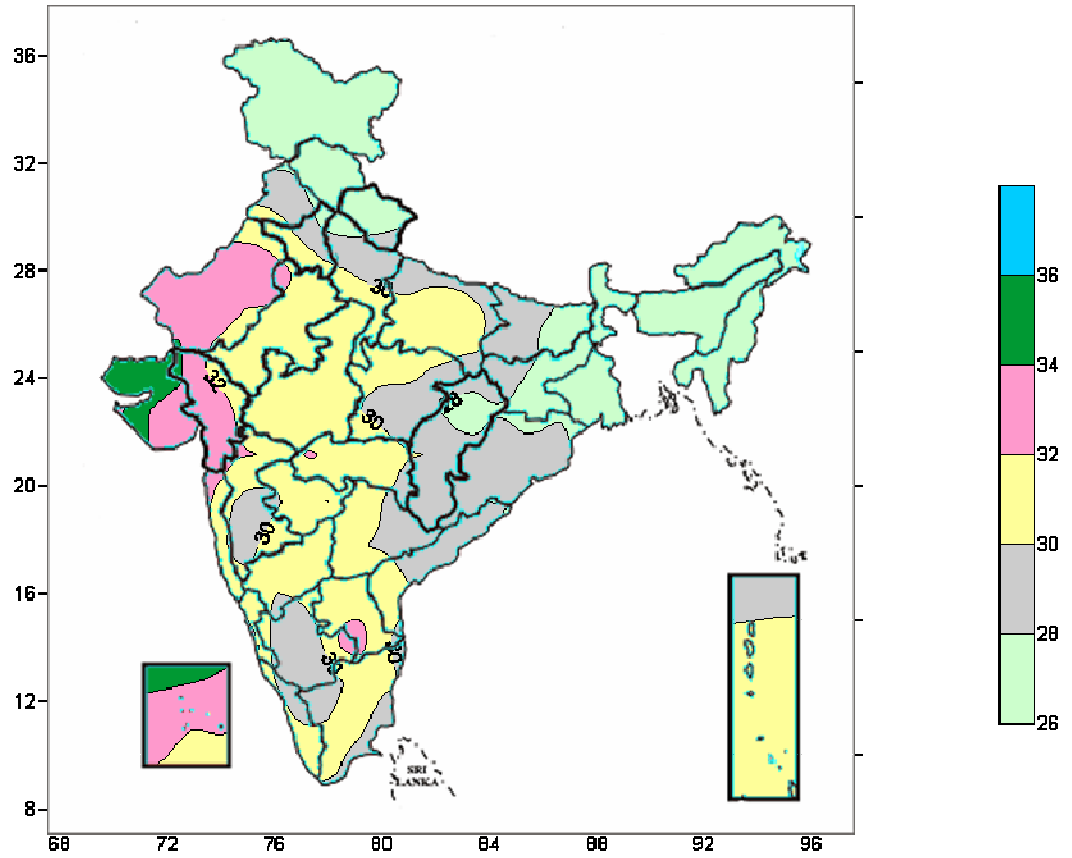
CUMULATIVE SEASONAL RAINFALL (1ST OCTOBER TO 15TH NOVEMBER, 2006)

Rainfall was excess/normal in 11 and deficient/scarcity in 25 out of 36 meteorological sub-divisions. (Actual: 73.3 mm, Normal: 95.7 mm and Departure: -22%).

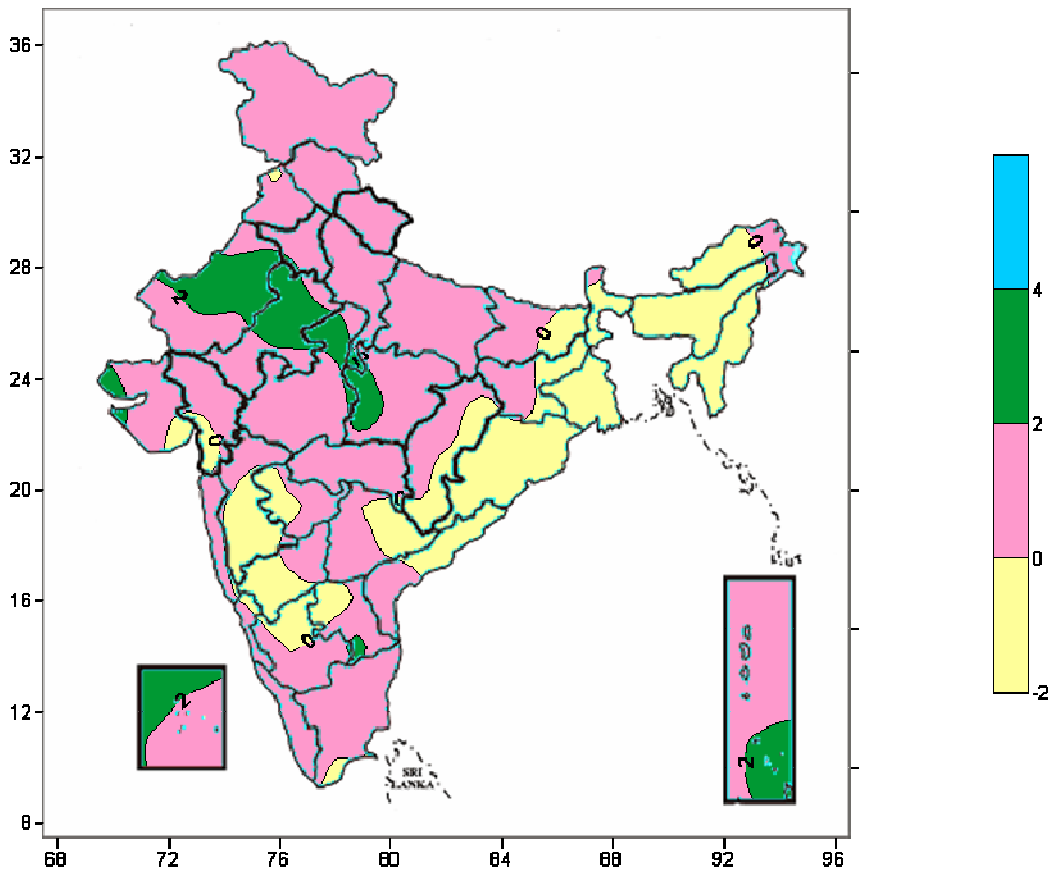
OUTLOOK FOR THE WEEK ENDING ON 22ND NOVEMBER, 2006.

- Fairly widespread/scattered rainfall activity is likely to continue over south peninsula during the week.
- Two western disturbances as an upper air system are likely to affect Jammu & Kashmir and adjoining areas during beginning and end of the week respectively.
- The night temperatures are likely to fall by 2-3°C over northwest and adjoining central India during the middle of the week.

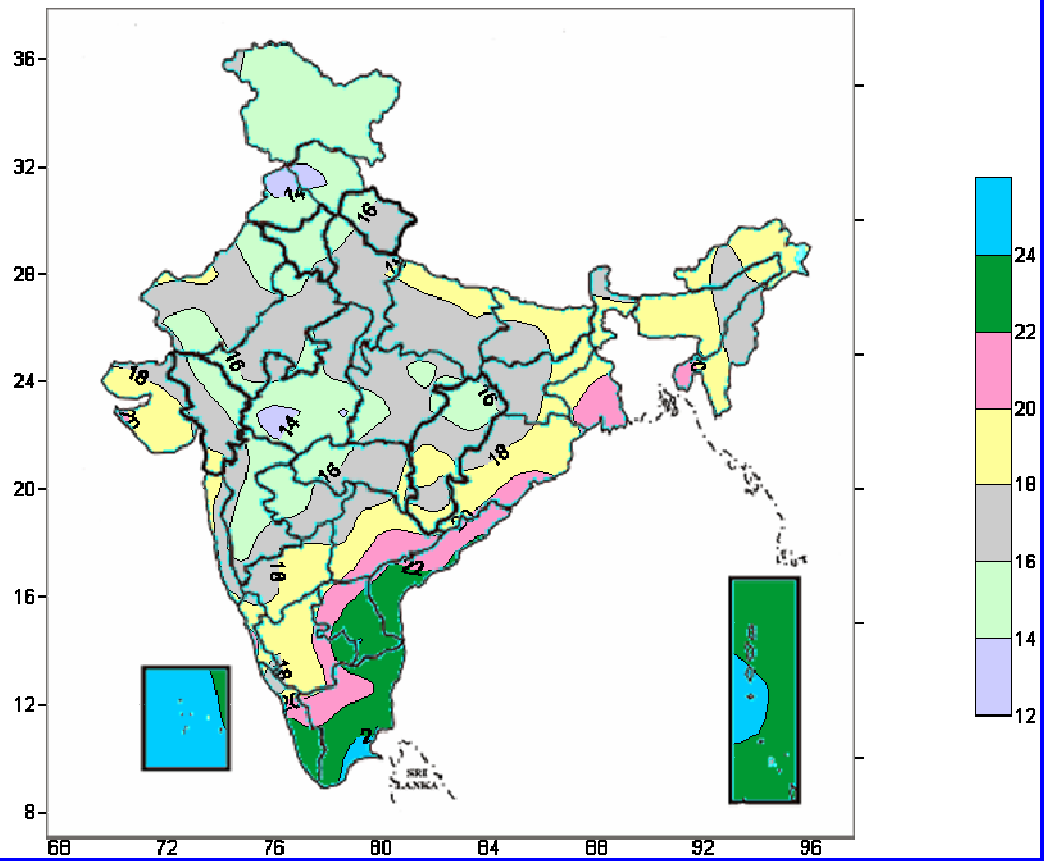
Actual mean maximum Temperature (°C) In India for the week ending 15.11.06



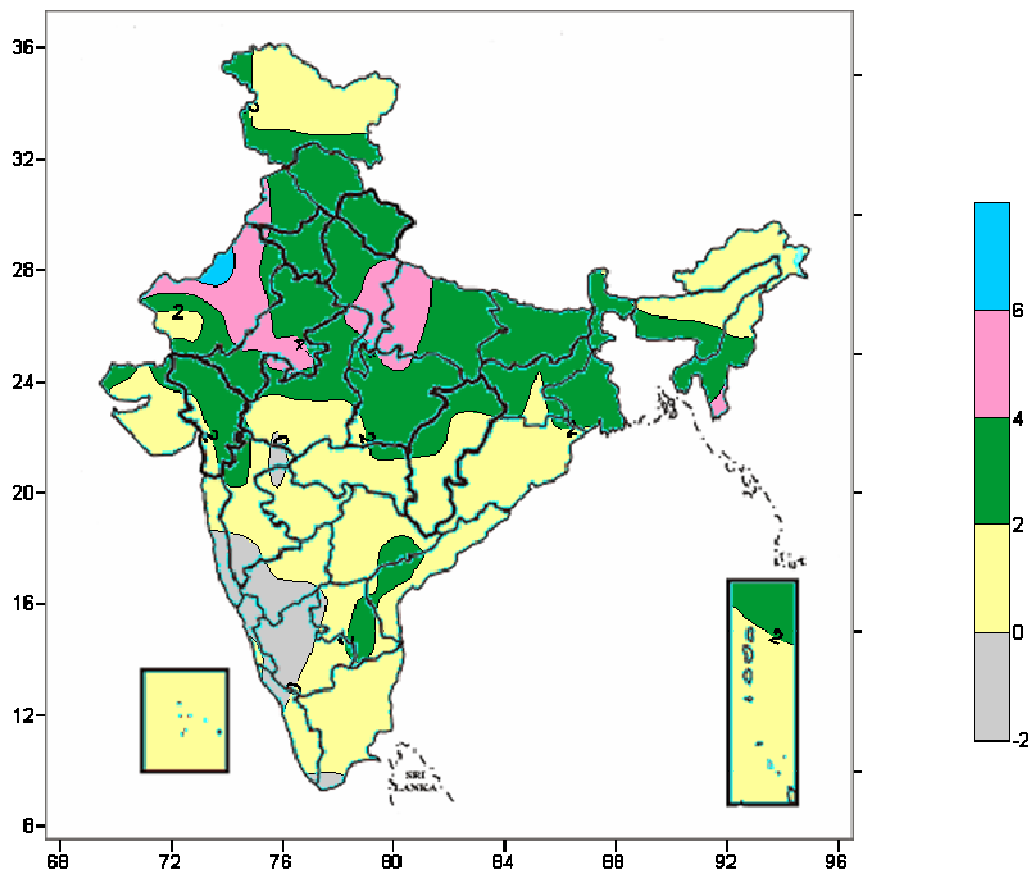
Maximum Temperature (°C) Anomaly In India for the week ending 15.11.06



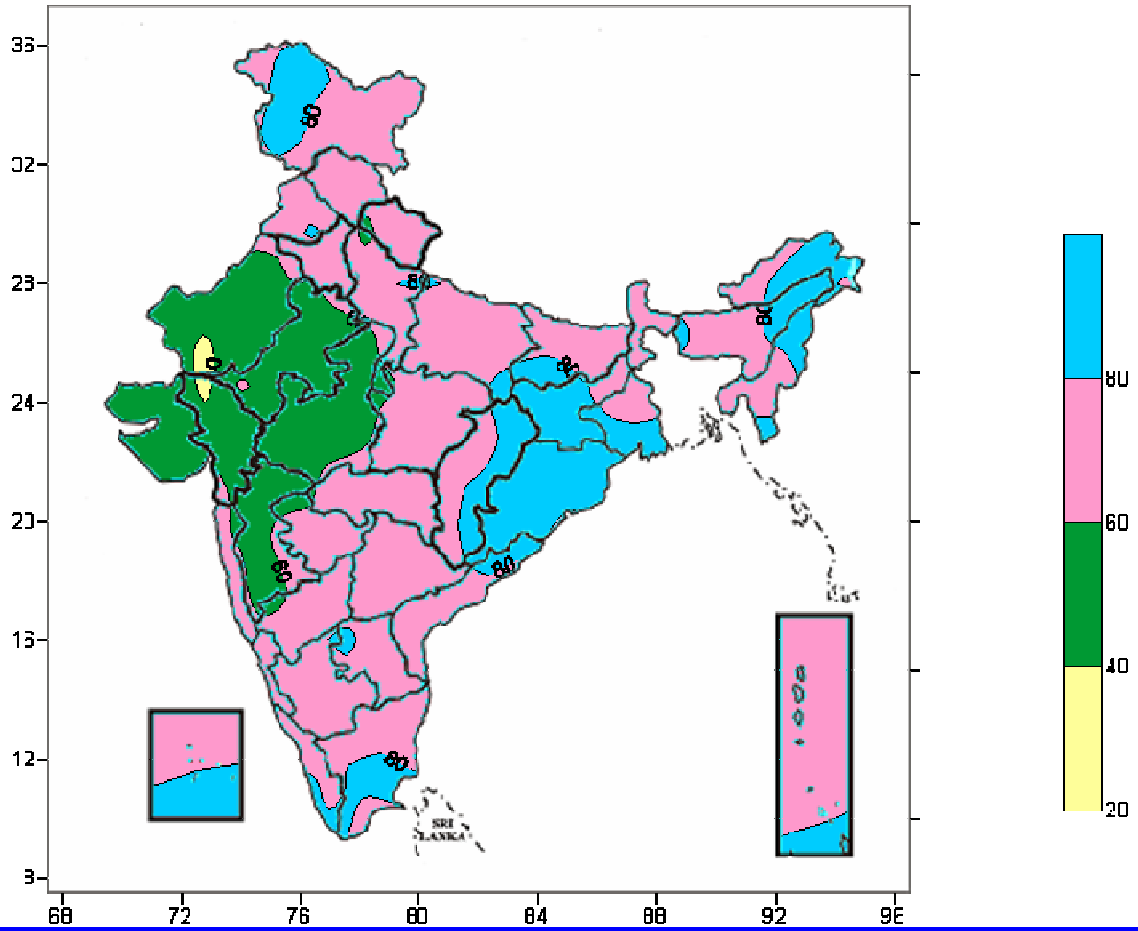
Actual mean Minimum Temperature ($^{\circ}\text{C}$) in India for the week ending 15.11.06



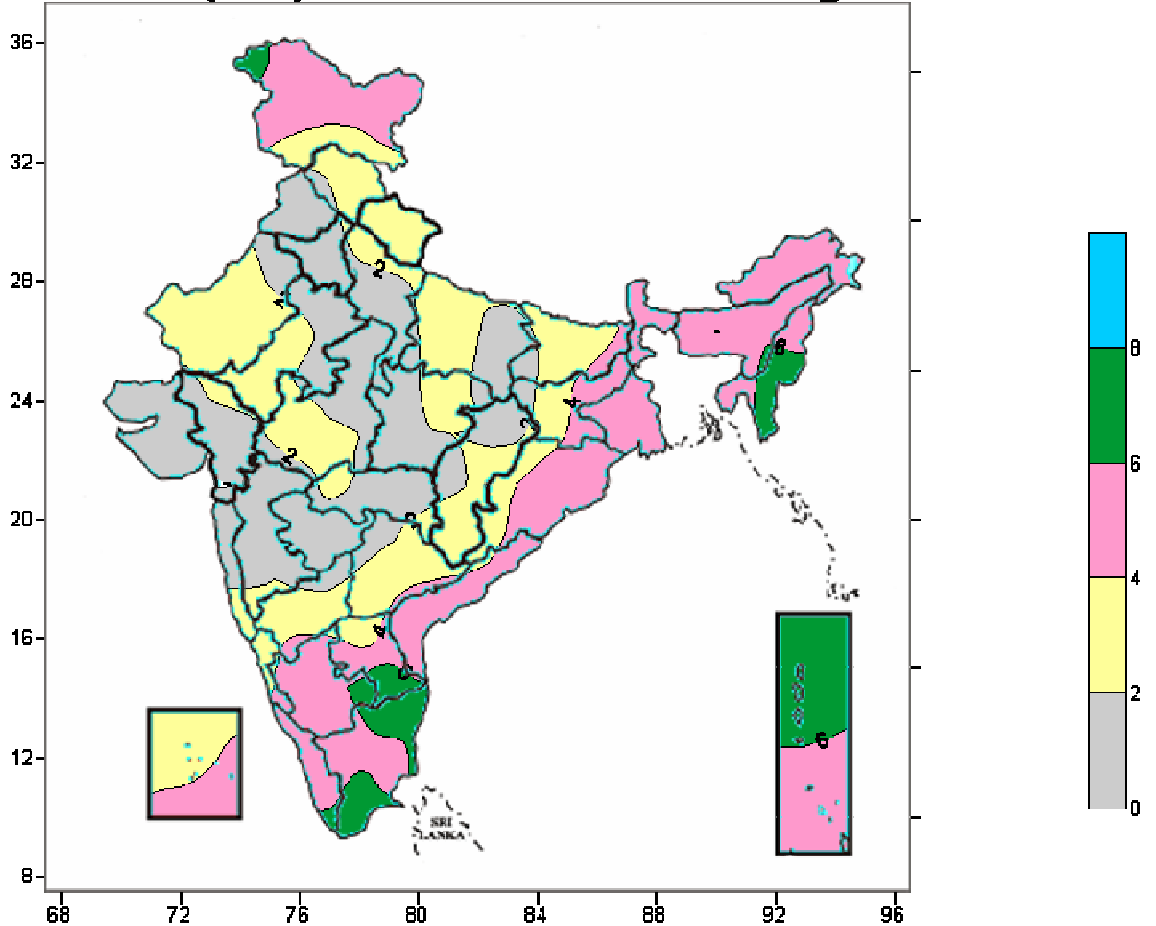
Minimum Temperature ($^{\circ}\text{C}$) Anomaly In India for the week ending 15.11.06



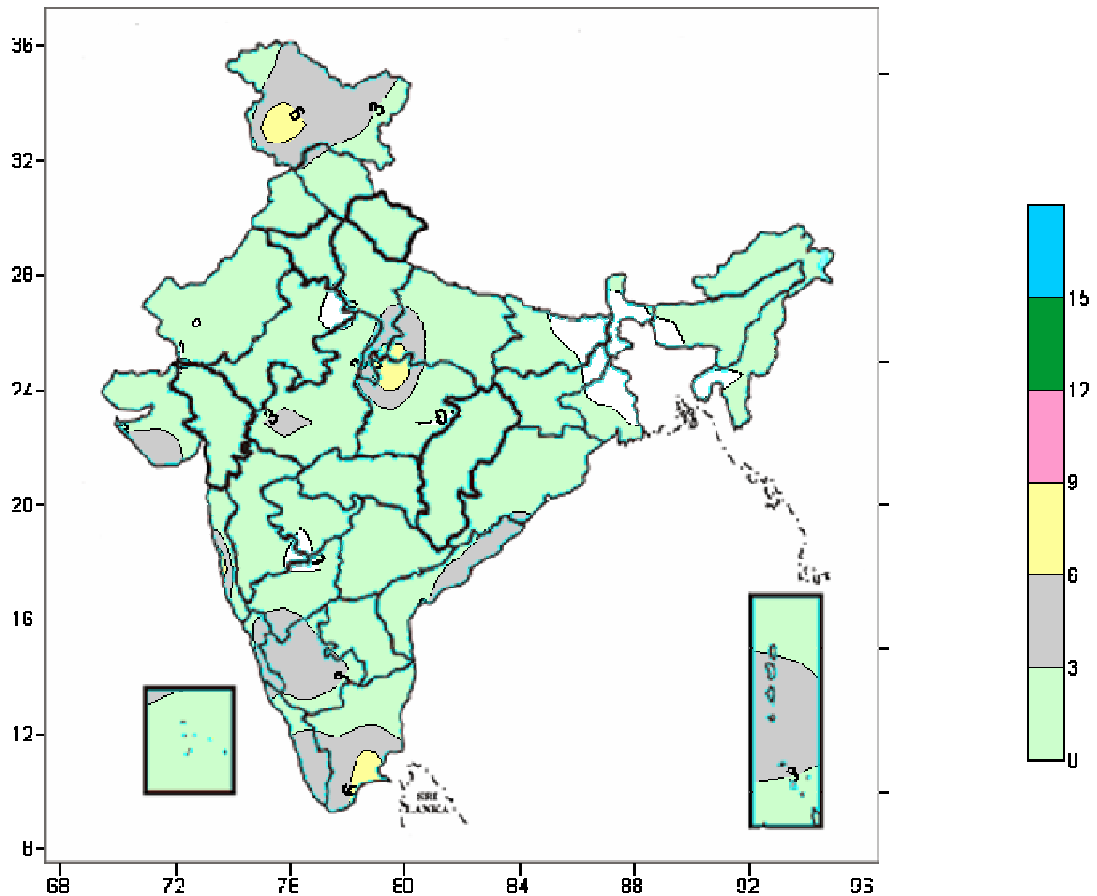
Relative humidity (%) over India for the week ending 15.11.06



Cloud amount (okta) over India for the week ending 15.11.06



Wind speed (knots) over India for the week ending 15.11.06



Desert Locust Forecasting



| Rainfall(mm) | | | | | | | |
|---------------|---------|----------|----------|----------|----------|-----------|----------|
| StationName | 9.11.06 | 10.11.06 | 11.11.06 | 12.11.06 | 13.11.06 | 14.11.0 6 | 15.11.06 |
| Amritsar | NIL | | | | | | |
| Barmer | | | | | | | |
| Sriganganagar | | | | | | | |
| Jaisalmer | | | | | | | |
| Kota | | | | | | | |
| Deesa | | | | | | | |
| Churu | | | | | | | |

| Temperature(degrecelcius) | | | | | | | |
|---------------------------|---------|----------|----------|----------|----------|-----------|----------|
| Station Name | 9.11.06 | 10.11.06 | 11.11.06 | 12.11.06 | 13.11.06 | 14.11.0 6 | 15.11.06 |
| Amritsar | 21.5 | 22.0 | 21.5 | 22.5 | 21.0 | 20.5 | - |
| Barmer | 25.0 | 27.0 | 25.5 | 23.0 | 23.0 | 24.0 | - |
| Sriganganagar | 23.5 | 23.5 | 24.0 | 25.5 | 23.0 | 22.5 | - |
| Jaisalmer | 27.5 | 27.5 | 27.0 | - | 25.5 | 24.5 | - |
| Kota | 26.0 | 25.0 | 24.0 | 24.5 | 25.0 | 25.0 | - |
| Deesa | 27.0 | 26.0 | - | 27.0 | 25.5 | - | - |
| Churu | - | - | - | - | - | - | - |

| Wind | | | | | | | | | | | | | | | |
|----------------------|----------------|------|-----------------|------|-----------------|------|-----------------|------|-----------------|------|-------|-----------------|-------|-----------------|--|
| Station Name | 9.11.06 | | 10.11.06 | | 11.11.06 | | 12.11.06 | | 13.11.06 | | | 14.11.06 | | 15.11.06 | |
| | Speed | Dir. | Speed | Dir. | Speed | Dir. | Speed | Dir. | Speed | Dir. | Speed | Dir. | Speed | Dir. | |
| Amritsar | 08 | ENE | - | - | - | - | - | - | 04 | NNW | 05 | NW | 12 | NW | |
| Barmer | - | - | - | - | - | - | - | - | - | - | - | - | 05 | SE | |
| Sriganganagar | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Jaisalmer | - | - | - | - | - | - | - | - | - | - | 05 | SSE | 03 | WNW | |
| Kota | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| Deesa | 12 | E | 08 | ENE | - | - | - | - | 07 | SE | - | - | 08 | SE | |
| Churu | 11 | W | 09 | NW | - | - | - | - | 09 | W | 10 | 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 |
|--------------|---|--|--------------|-------------|
| Vegetative | Sowing/Transplanting | Vegetative/flowering/fruiting/harvesting | Sowing | Sowing |
| Barley | Mustard | | | |
| Sowing | Vegetative | | | |

Haryana

| Horticultural crop | Sugarcane | Gram/Lentil | Rabi oilseeds | Wheat |
|---------------------------|------------------|-------------------------|----------------------|-------------------------|
| Sowing/plantation | Vegetative | Sowing/early vegetative | Sowing | Sowing/early vegetative |

Himachal Pradesh

| Wheat | Gram | | Vegetables (Tomato, brinjal, ladiesfinger) | Barley |
|-------------------------|-------------------------|-------------------|---|--|
| Land preparation/sowing | Land preparation/sowing | | Vegetative/flowering/fruiting/harvesting | Land preparation/sowing |
| Early sown Wheat | Early sown Gram | Early sown Barley | Summer vegetables Radish, Turnip, Carrot | Summer vegetables (Cauliflower, Cabbage)/Archie peas |
| Germination | Germination | Germination | Sowing | Preparation of nursery in low hills & Transplanting in high hills/Sowing |

Jammu & Kashmir

| Winter vegetable crops | Rice | Mustard | Gram/Field Pea | Wheat |
|-------------------------------|---------------------------------|----------------|-----------------------|--------------|
| Sowing | Grain maturity/early harvesting | Sowing | Sowing | Sowing |
| Pea | Barley | Toria | Brown Sarson | Lentil |
| Sowing | Sowing | Sowing | Sowing | Sowing |

Punjab

| Sugarcane | Rabi oilseeds | Gram/Lentil | Horticultural crop | Wheat |
|------------------|----------------------|-------------------------|---------------------------|-------------------------|
| Vegetative | Sowing | Sowing/early vegetative | Sowing/plantation | Sowing/early vegetative |

Rajasthan

| Cotton | Mustard | Wheat | Gram | Barley |
|---------------|-------------------|-------------------------|-------------|---------------|
| Boll picking | Land preparation/ | Land preparation/sowing | Land | Land |

| | | | | |
|--|--------|------------------------|--------------------|--------------------|
| | sowing | | preparation/sowing | preparation/sowing |
| | | Cumin | | |
| | | Landpreparation/sowing | | |

UttarPradesh

| | | | | |
|---------------------|-----------------------------|--------------------------|-------------------------|-------------------------|
| KharifPulses | Sugarcane | Kharif Vegetables | WinterVegetables | Kharif Groundnut |
| Harvesting | Canematurity/ harvesting | Harvesting | Vegetative | Harvesting |
| Mango | Rabipulses | Kharif rice | Wheat/Barley | Rabicrops |
| Activegrowth | Sowing | Harvesting | Sowing | Earlyvegetative |

Uttaranchal

| | | | | |
|---------------------|-----------------------|-----------------|------------------|-----------------|
| Rice | Mango/Litchi | Wheat | Sugarcane | Toria |
| Maturity/harvesting | Activegrowth | Germination | Grandgrowth | Earlyvegetative |
| | Milletts(Ragi) | Pea | Potato | |
| | Harvesting | Earlyvegetative | Earlyvegetative | |

Assam

| | | | | |
|---------------------|-----------------------------|---------------------------|---|-----------------------------------|
| | Sugarcane | Wheat | Vegetables | Balckgramand Greengram |
| | Canematurity/ harvesting | Landpreparation/sowing | Landpreparation/ sowing | Podformation |
| Salirice | Arhar | RapeseedandMustard | EarlysownRape seedandMustard | Pea,Lentiland Potato |
| Maturity/harvesting | Maturity | Landpreparation/sowing | Earlyvegetative | Land preparation/sowing |

ArunachalPradesh

| | | | | |
|--------------------------------|---------------|------------------------|----------------------------|-------------------------|
| Mustard | Ginger | Potato | Wheat | Wintervegetables |
| Land preparation/ sowing | Vegetative | Landpreparation/sowing | Landpreparation/ sowing | Vegetative |
| Earlysown Potato | | | | |
| Earlyvegetative | | | | |

Bihar

| | | | | |
|---------------------------------|-----------------------------|--|---|---|
| Fruitsand Vegetables | Wintervegetables | Rice | EarlysownMaize | RabiMaize |
| Vegetative | Sowing/ transplanting | Harvesting | Germination | Fieldpreparation/ sowing |
| PulsesandOil seeds | Potato | RabiOilseeds(Toria, Sarson,Linseed) | RabiPulses(Lentil, Gram,Pea) | Maize |
| Seedmaturity | Fieldpreparation/ sowing | Fieldpreparation/ sowing/*Earlyvegetative | Fieldpreparation/ sowing/*Early vegetative | Cob maturity/harvesting |
| Wheat | RabiMaize | EarlysownMaize | Earlysown Pulses(Lentil, Gram,Pea) | Earlysown(Toria, Sarson,Linseed) |
| Land preparation/sowi ng | Field preparation/Sowing | Seedling/earlyvegetative | Earlyvegetative | Earlyve getative |

Jharkhand

| | | | |
|---|--------------------------------|------------------------------|-------------------------|
| Rice | RabiMaize | Wheat | RabiMaize |
| Maturity/harvesting | Fieldpreparation/sowing | Field preparation/sowing | Fieldpreparation/sowing |
| Rabivegetables (Tomato,Cabbage, Cauliflower,Brinjal, Chilli) | Earlyplantedvegetables | Rabipulsesandoilseeds | Pea&Onion |
| Transplanting | Earlyvegetative/ vegetative | Fieldpreparation/sowing | Sowing |
| Potato | | | |
| Fieldpreparation/sowing | | | |

Sikkim

| | | | | |
|---------------|-------------|---|-----------------------|--------------|
| Orange | Rice | Rabivegetables | EarlysownWheat | Wheat |
| Harvesting | Harvesting | Earlyvegetative/vegetative Transplanting-insome areascontd. | Earlyvegetative | Sowing |

| | | | | |
|----------------|--------------------------|--|--|--|
| Mustard | Earlysown Mustard | | | |
| Sowing | Earlyvegetative | | | |

WestBengal

| | | | | |
|---------------------------------|--------------------------------|--------------------------------|--|--------------------------------|
| Bororice | Sugarcane | Wheat | Amanrice | Rapeseedand Mustatrd |
| Field preparation/sowing | Canedevelopment | Fieldpreparation/sowing | Grain formation/maturity/harvesting | Fieldpreparation/sowing |
| Groundnut | Lentil | Gram | | |
| Harvesting | Fieldpreparation/sowing | Fieldpreparation/sowing | | |

Chattisgarh

| | | | | |
|---------------------------------|--|------------------------|--|---|
| Gram | Vegetables (Tomato,chilli, brinjal) | Sugarcane | Kharif rice | Linseed,Safflower, Mustard,Toria |
| Field preparation/sowing | Vegetative | Canedevelopment | Grain formation/maturity/harvesting | Field preparation/sowing |

Gujarat

| | | | | |
|------------------------------|------------------------------------|------------------------|--------------------------------|--|
| Mustard | Pre-monsoon irrigatedCotton | KharifGroundnut | Wheat | Sugarcane |
| Vegetative | Bollformation/picking | Harvesting | Land preparation/sowing | Cane development/early maturity |
| KharifCotton | Castor | KharifRice | | |
| Square/boll formation | Vegetative/flowering | Harvesting | | |

Maharashtra

| | | | | |
|--|--|--|--|---|
| Jowar (Madhya Maharashtra, Marathwada& Vidarbha) | Tur (Madhya Maharashtra, Marathwada& Vidarbha) | Irrigated Cotton | Sugarcane (Seasonal) (Madhya Maharashtra, Marthwadaand Vidarbha) | Rabi Sunflower (Madhya Maharashtra, Marathwada& Vidarbha) |
| Grain maturity/harvesting | Flowering/pod formation | Bollformation/boll maturity/picking | Elongation/cane maturity/harvesting | Germination/early vegetative |
| Potato (Madhya Maharashtra, Marathwada& Vidarbha) | Kharifcotton (Madhya Maharashtra, Marathwada& Vidarbha) | Rabi Jowar (MadhyaMaharashtra, Marathwada& Vidarbha) | Kharifrice (Konkan) | Kharifrice (Madhya Maharashtra, Marathwada& Vidarbha) |
| Field preparation/planting | Bollformation | Germination/early vegetative | (mediumvarieties) Grain maturity/harvesting (latevarieties) Grain formation/grain maturity/harvesting | Grain formation/grain maturity (inVidarbha) Grainformation /Grain maturity/harvesting (inMadhya Maharashtra, Marathwada) |
| Gram (Madhya Maharashtra, Marathwada& Vidarbha) | Rabi maize (Madhya Maharashtra, Marathwada& Vidarbha) | Rabi Safflower (MadhyaMaharashtra, Marathwada& Vidarbha) | Sugarcane Preseasonal (Madhya Maharashtra, Marathwada& Vidarbha) | EarlysownWheat (Madhya Maharashtra, Marathwada& Vidarbha) |
| Field preparation/sowing | Germination/early vegetative | Germination/early vegetative | Field preparation/planting | Germination |
| Earlysown Gram (Madhya Maharashtra, Marathwada& | Earlysown Sugarcane Preseasonal (Madhya Maharashtra, | EarlysownPotato (MadhyaMaharashtra, Marathwada& Vidarbha) | Wheat (Madhya Maharashtra, Marathwada& Vidarbha) | Onion (Madhya Maharashtra, Marathwada& Vidarbha) |

| | | | | |
|------------------|----------------------------------|-----------|------------------------------|-------------------------------|
| Vidarbha) | Marathwada& Vidarbha) | | | |
| Germination | Sprouting | Sprouting | Fieldpreparation/ sowing/ | Field preparation/planting |

MadhyaPradesh

| | | | | |
|--------------|----------------|--------------------|---------------|----------------|
| Wheat | Mustard | Kharifcrops | Masoor | Linseed |
| Germination | Germination | Podmaturity | Germination | Germination |
| Gram | | | | |
| Germination | | | | |

Orissa

| | | | | |
|-------------------------|--|------------------------------|-----------------------|------------------------|
| Vegetables | | Mustard | Rabi Groundnut | Sugarcane |
| Early vegetative | | Sowing | Sowing | Vegetative/tillering |
| KharifRice | | Pulses | Oilseeds | Earlysownpulses |
| Maturity/harve sting | | Sowing(Biri/Mung/ Kulthi) | Sowing | Podmaturity |

AndhraPradesh

| | | | | |
|-------------------|--|--------------|------------------|----------------------|
| Kharifrice | Kharif crops(Chillies/ Tur) | Maize | Groundnut | Cotton |
| Grainmaturity | Podmaturity/ Chillies- fruiting/harvesting | Harvesting | Podmaturity | Bollmaturity/picking |

Karnataka

| | | | | |
|-------------------------------------|---|--------------------------------------|-------------------|----------------------|
| Groundnut | Sugarcane(Ratoon crop&newcrop) | Kharifcrops (jowar,maize) | Kharifrice | Kharifcotton |
| Podharvesting | Maturity/early harvesting | Harvesting | Graindevelopment | Bollmaturity/picking |
| Rabijowar,wheat andmaize | | | | |
| Sowing | | | | |

Kerala

| | | | | |
|---------------|--|-----------------------------------|---|--|
| Rubber | | Pepper | Mundakanrice | |
| Tapping | | Berrymaturity/early harvesting | Late Tillering/panicle initiation | |

TamilNadu

| | | | | |
|---|---------------------------|---|--|--------------------------|
| EarlysownPulses (Blackgramand greengram) | Millets | Cotton | Early&mid sugarcane | Earlysownoilseeds |
| Vegetative | Sowing | Sowing | Maturity | Vegetative |
| Rice (Kuruvai) | Rice (Samba) | Pulses(Blachgram andGreengram) | Oilseeds (Groundnut, Sunflower) | EarlysownMillets |
| Maturity/harvesting | Nursery/transplantin g | Sowing | Sowing | Seedling |
| Sunflower | Earlysown | | | |
| Sowing | Vegetative | | | |