

Summary of Agromet Advisory Services for different States of the country Issued by

Agricultural Meteorology Division, India Meteorological Department, Pune, India

# Thursday, 1<sup>st</sup> November, 2007

(For the period 1<sup>st</sup> to 5<sup>th</sup> November, 2007) The extended version of the bulletin is also available at <u>http://imdagrimet.org</u>

## Agromet Advisory

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

## <u>Punjab</u>

- Weather remained dry during the period. Weather is expected to remain dry for next 3-4 days with bit rise in night temperatures.
- Mainly dry weather is likely over the State.

## Advisories

- As there was no rainfall in the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, groundnut(pod formation stage) and horticultural crops.
- Continue sowing of gram and lentil using improved varieties.
- Continue picking of cotton and harvesting of rice.
- Complete sowing of toria and gobi sarson. Before sowing of toria apply pre sowing irrigation.
- Monitor the sugarcane crop for shoot borer infestation & if exceeds economic threshold level, for effective control spray Endosulfan 50 EC 600 ml in 600 liter of water/acre.
- Preparation of field and sowing of wheat, cabbage, pea, garlic, and potato can be done.
- Apply 2<sup>nd</sup> dose of nitrogen in brinjal, Arbi chilly, ladies finger and to cucurbits family if not applied earlier.

## <u>Haryana</u>

• Mainly dry weather is likely over the State.

## Advisories

- As there was no rainfall in the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, groundnut (pod formation stage) and horticultural crops.
- Toria sowing should be completed with 21.5kg seed of TL-15 or TL-37 with 50 kg  $P_2O_5$ . Prefer Super phosphate for application. Before sowing of toria apply pre sowing irrigation.
- Continue picking of cotton and harvesting of rice.
- Monitor the sugarcane crop for borer infestation & if exceeds economic threshold level, for effective control, spray 600 ml Endosulfan 50 EC in 600 liter of water/acre.
- Preparation of field and sowing of wheat, carrot, raddish, and brinjal can be done.

## <u>Rajasthan</u>

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

- As dry weather prevailed during last week and likely to prevail over the State for the next three days, apply irrigation to *Zaide* fodder. Conserve moisture where *kharif* crops are at maturity stage.
- Continue picking of cotton. Picking of cotton may be undertaken in the early morning hours to maintain the quality of kapas.
- Undertake ploughing of fields and sowing of *rabi* crops *viz*, mustard, barley, taramira and gram by utilizing residual moisture.

#### **Uttar Pradesh**

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

#### Advisories

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

#### **Himachal Pradesh**

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

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

## <u>Uttarakhand</u>

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

## Advisories

- As there was no rainfall in the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to sugarcane, toria, pea and potato.
- Undertake intercultural operations to keep the field weed free in potato, sugarcane and in orchards.
- Undertake weeding to conserve soil moisture in toria / pea.
- Undertake harvesting of mature crops of rice, finger millet and ginger.

## Jammu & Kashmir

- Mainly dry weather is likely over the State.
- Weather remained mainly dry over J&K divisions.

## Advisories

- Apply irrigation to vegetable and fruit crops in Kashmir division and to fruit crops in Jammu division as dry weather prevailed during last week and likely to prevail over the State for the next three days.
- Conserve moisture in maize field and stop irrigation 10-15 days before harvest of rice in Jammu division. Start harvesting the matured crops on bright sunny days.
- Continue transplanting of cauliflower and knoll-khol with seed rate of 500g and 250g respectively in Jammu division and sowing of onion in Kashmir division.
- Continue land preparation and sowing of wheat in Kashmir division. Adopt 100 kg/ha seeds for sowing. Apply 40kg N, 60kg P<sub>2</sub>O<sub>5</sub> and 40kg K<sub>2</sub>O as basal.
- Prepare land for sowing of gobi sarson crop (varieties: GSL-I, DGS-I) and gram (var: C-235, K-468, Gourav and PBG-I) crop in Jammu division in irrigated as well as rainfed areas.
- Continue harvesting of matured fruit crops and maize in Jammu division and pea, lentil, chickpea etc. in Kashmir division in bright sunny days.

## <u>Delhi</u>

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

- As there was no rainfall in the State during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to vegetables.
- Prepare land and undertake transplanting of 5 6 weeks old seedlings of cauliflower, tomato and brinjal in the main field.
- Continue sowing varieties like Japani White and Rashmi for raddish, Pusa keshar and Pusa Desi for carrot and Pusa Kanchan, PTWG and Golden Ball for turnip. Treat the seeds with captan or thiram or dithane M-45 @ 2 g / kg of seeds.
- Sow early varieties of potato with seed weight ranging from 25-30 gm. Select varieties from Kufri Badshah, Kufri Bahar and Kufri Chander Mukhi for sowing.
- Prepare field and undertake sowing of mustard. Use varieties like Pusa bold, Pusa Barani, T-59 (Varuna) and Pusa Kalyani etc.

- Undertake sowing of barseem varieties like Pusa Joint Tetraptoid or maskavi. Treat the seeds with Rhizobium culture before sowing. Barley and Mustard seeds may be mixed with Barseem for good first cutting.
- Prepare field and undertake sowing of wheat. Use varieties like HD 2329, HD 2009, WL 74, HD 3438, CPAN-2004 etc. for sowing.
- Prepare field and undertake sowing of gram. Use varieties like P-209, Pusa 408, Gaurav C-235 and K-851 (Kabuli Chana) etc. for sowing.

## Southern Region (AP, Tamilnadu, Karnataka and Kerala)

## <u>Kerala</u>

- Northeast monsoon was active over the State on 29<sup>th</sup> & 30<sup>th</sup> October. Rain occurred at most places on 29<sup>th</sup> & 30<sup>th</sup> October and at a few places on 31<sup>st</sup> October.
- Rain / thundershowers are likely at a few places over the State.

#### Advisories

- As there was excess rainfall in most of the districts over the State except in Kannur, Kasaragod, Thiruvananthapuram and Wayanad districts during last week, postpone irrigation to plantation crops viz., coconut, arecanut, rubber and banana. Apply irrigation in the above districts as there was no significant rainfall during last week.
- Continue intercultural operations, application of fertilizers and pesticides in plantation crops on a non rainy day.
- Attack of rhinoceros beetle, leaf rot, stem bleeding and Eriophid mite is reported in coconut. Fill the leaf axils with Sevidol 8G @ 25 gm mixed with 200 gm fine sand to control rhinoceros beelte. As a prophylactic measure spray crowns and leaves with 1% Bordeaux mixture or 0.5% copper oxychloride formulation or 0.4% Mancozeb. In the leaf rot affected plants, remove the rotten parts from the spear and the two adjacent leaves and pour 300 ml fungicidal solution at the base of the spear which can be prepared by mixing Hexaconazole @ 5 EC 2 ml or Mancozeb @ 3 gm in 300 ml of water. To control stem bleeding, chisel out completely the affected tissues and paint the wound with Tridemorph @ 5%. Apply coal tar after 1-2 days. Root feed with Tridemorph 5% to prevent further spread of lesions. Undertake prophylactic spraying with 2% neem oil + garlic emulsion in the crown and bunches, 2nd 7th bunches from top avoiding unpollinated inflorescence to minimize Eriophid mite incidence. Plant protection measures may be undertaken on a non rainy day.
- Attack of Phytophthora foot rot is reported in pepper. Spray and drench with Copper oxy chloride @ 0.2% on a non rainy day to control the disease.
- Attack of pink disease is reported in rubber. Clean the affected portion and apply Boardeaux paste @ 1% on a non rainy day.
- In early transplanted mundakan rice, attack of blast and bacterial leaf blight diseases is reported. Apply Pseudomonas culture @ 25 kg/ha mixed with 50 kg of cow dung to control blast & bacterial blight disease. Application of Pseudomonas culture may not be done along with chemical fertilizers and plant protection chemicals. Plant protection measures may be undertaken on a non rainy day.

#### <u>Tamilnadu</u>

- North East monsoon was vigorous over North Tamilnadu on 29<sup>th</sup> October. Rainfall occurred at many places over North Tamilnadu, at a few places over South Tamilnadu on 29<sup>th</sup> October and at one or two places over the State on 30<sup>th</sup> and 31<sup>st</sup> October.
- Rain / thundershowers are likely at many places over the State.

#### Advisories

• As rain / thundershowers are likely to occur at many places over the State for the next three days, postpone irrigation to sugarcane and early sown maize, groundnut, black gram, green gram and pulses.

- Provide adequate drainage facilities in Cuddalore, Pondicherry and Nagappattinam districts to avoid water logging due to heavy rainfall during last week. Drain out excess water form rice fields.
- Monitor maize for stem borer and aphids and if the pests population crosses ETL, spray Carbaryl 50% WP @ 400 g/acre after current spells of rain to control the pest.
- Continue sowing of rainfed groundnut, black gram, green gram and red gram after current spells of rain. Use 112 kg pods/ha for groundnut and 20 kg/ha for pulse crops.
- Continue sowing rainfed millet crops like jowar, bajra and samai after current spells of rain. Undertake seed treatment with Azospirillum before sowing.
- Continue picking matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.

## <u>Karnataka</u>

- On 29<sup>th</sup> October, rainfall occurred at many places over South Interior Karnataka and at a few places over Coastal Karnataka. On 30<sup>th</sup> October, rainfall occurred at isolated places over Coastal Karnataka and South Interior Karnataka. Mainly dry weather prevailed over North Interior Karnataka. On 31<sup>st</sup> October, rainfall occurred at isolated places over Interior Karnataka. Mainly dry weather prevailed over Coastal Karnataka.
- Rain / thundershowers are likely at a few places over South Interior Karnataka. Rain / thundershowers are likely at a few places over rest region of the State during next 24 hours and decrease there after.

#### Advisories

- As rain / thundershowers is likely to occur at a few places over South Interior Karnataka for the next three days and at a few places over rest region during next 24 hours, apply irrigation to summer sugarcane, *rabi* jowar, maize, cotton and sunflower.
- Monitor sugarcane for white woolly aphids and release predators viz., Dipha sp. adopt wider spacing, inter-cropping with soyabean and pulses of short duration to control the pest. Undertake propping to prevent the crop from lodging due to dusty wind.
- Continue harvesting matured *kharif* crops of maize and jowar and picking cotton on bright sunny days.
- Undertake intercultural operations and application of fertilizers in *rabi* crops like maize, jowar, sunflower and cotton. Intercultural operations may be undertaken on a non rainy day in South Interior Karnataka.

#### Andhra Pradesh

- Rain occurred at most places over north Coastal Andhra Pradesh on 31<sup>st</sup> October and at a few places over north Coastal Andhra Pradesh on 30<sup>th</sup> October & over Rayalaseema on 28<sup>th</sup> and over Telangana on 31<sup>st</sup> October. Isolated rain occurred over coastal Andhra Pradesh on 25<sup>th</sup> to 29<sup>th</sup> October over Coastal Andhra Pradesh on 25<sup>th</sup> to 29<sup>th</sup> October over Rayalaseema on 31<sup>st</sup> October. Generally mainly dry/dry weather prevailed elsewhere over Telangana during the week.
- Rain / thundershowers are likely to occur at many places over South coastal Andhra Pradesh and Rayalaseema and at a few places over the rest region of the State during next 24 hours and decrease there after.

- As rain / thundershowers is likely to occur at many places over south Coastal Andhra Pradesh and Rayalaseema for the next three days, postpone irrigation to groundnut. As rain / thundershowers is likely to occur at a few places over the rest region, apply irrigation to the crop.
- Start harvesting rice on bright sunny days. Harvesting may be undertaken after spells of rain in south Coastal Andhra Pradesh and Rayalaseema

• Start picking cotton on bright sunny days. Picking may be undertaken after spells of rain in south Coastal Andhra Pradesh and Rayalaseema.

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

## <u>Assam</u>

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

## Advisories

- As there was no significant rain during last week and mainly dry weather is likely over the State, apply irrigation to arhar, black gram and green gram.
- Maintain 3 5 cm water in *Sali* rice field.
- Continue harvesting of matured crops of sugarcane. Red rod infested sugarcane may be harvested early and the field should be newly planted. Ratooning of infested plant should be discarded.
- Incidence of hispa and stem borer was noticed in *Sali* rice in few localities. Monitor the infestation of hispa and stem borer. If one adult is noticed per hill, insecticides like Chloropyriphos 20 E.C. @ 2 ml per litre of water or Monocrotophos 40 EC @ 1.5 ml per litre of water is to be applied. For management of yellow stem borer *Trichogramma Japonicum* @ 50,000 per hectare in six releases are to be used.
- In black gram and green gram, monitor the crops for aphids, jassids and flea beetle attack. Undertake spraying of Malathion 50 EC @ 2 ml/litre of water, if required. As soon as leaf spot disease appears Blitox or Fytolan @ 1.5 gm per litre of water should be sprayed at an interval of 7-10 days. Alternatively, Bavistin @ 1gm per litre of water should be sprayed at an interval of 12-15 days.
- Prepare land for early varieties of winter vegetables such as spinach, reddish & corrinder etc. and seeds of hybrid varieties of tomato, brinjal, capsicum, cauliflower and cabbage etc. may be collected from reputed sources and should be sown in the seed bed for raising seedling for planting in the main fields.
- Completely flood damaged area and area which could not be covered due to non availability of *Sali* rice seedlings may be selected for cultivation of different *rabi* crops such as mustard, rapeseeds, pea, lentil, wheat etc. and land preparation may be started .Sowing may be continued till 15<sup>th</sup> of November. For mustard and rape seed apply Urea @ 20 kg and SSP @ 30 kg per bigha at the time of land preparation and use seeds @ 1.5 kg per bigha for sowing. For pea apply Urea @ 6 kg, SSP @ 4 kg per bigha at the time of land preparation and use seeds @ 7 kg per bigha for sowing.
- For cultivation potato apply Urea @ 19 kg, SSP @ 45 kg and MOP @ 12kg per bigha at the time of land preparation and use tuber (2.5 cm in diameter, 25 gm by weight) @ 3 quintal per bigha for planting at distance of 15 cm.

## Arunachal Pradesh

- Weather was mainly dry during the period.
- Isolated rain / thundershowers are likely over the State.

- As there was no significant rainfall in most of the districts during last week and Isolated rain / thundershowers are likely over the State for the next three days, apply irrigation to fingermillet at grain formation stage.
- Maintain 3-5 cm of water in wet seeded rice field.
- Undertake surveillance of rodent attack in jhum rice and millet.

- Continue sowing of wheat and mustard.
- Farmers are advised to sow potato seed @ 8-15 Quintol/ha depending upon the tuber size. 4 to 5 time ploughing should be done to have good tilth. Soil should be treated with Furadon 3G granules. Fertilizer NPK may be applied at the rate of 120 kg, 100 kg, 70 kg respectively. 11 to 30 Mt. FYM/ha. may be applied.
- Continue sowing / transplanting of rabi vegetables like cauliflower, chinese cabbage, carrot, knol-khol, lettuce, methi, palak, peas, raddish, tomato, turnip etc.
- Prepare field undertake sowing of pea and rabi maize.

## <u>Bihar</u>

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

## Advisories

- As there was no rainfall in the State during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to the standing crops.
- Continue sowing of raddish, early cauliflower, chillies, fodder maize, pea, gram, lentil and & tomato.
- Continue land preparation and planting of potato. Select among Kufri Ashoka or Kufri Chandramukhi or Rajendra, Aloo-3.
- To control grain discoloration in rice, spray Carbendazim @ ½ kg/ ha where the crops are at grain formation stage.
- Start field preparation and sowing of rai. Use certified seed of rai variety Kranti, varuna, pusa bod. Apply NPK 30:40:40 kg per ha. as basal dose.

#### <u>Jharkhand</u>

- Rain occurred at isolated places.
- Isolated rain / thundershowers are likely over the State.

#### Advisories

- Apply irrigation to early sown vegetables as there was no significant rainfall during last week and isolated rain / thundershowers are likely over the State for the next three days.
- Monitor rice for gundhi bug. If damage exceeds ETL, spray 25 kg. Chlorpyriphos dust per hectare. If loose smut is observed, cover the affected earhead with polythene cover and cut it. These cuttings must be buried or burned.
- Continue harvesting of upland crops like maize, groundnut, urd and moong. After harvest, undertake sowing of *rabi* crops like gram, sarson, rai, toria, pea, masoor and linseed wherever facilities for 2-3 irrigations are available.
- Continue land preparation and sowing of cabbage, cauliflower, chilli, potato, tomato, etc, Select among Altimous, Kufri Chandramukhi, Kufri Ashok, Kufri Badshah to plant potato in the main field.

## <u>Sikkim</u>

- Sky remained generally cloudy during the period. Light rain occurred at few places on 28<sup>th</sup>, 29<sup>th</sup> and 31<sup>st</sup> October. Weather was mainly dry on rest of the days during the period over Sikkim. Rain fall was sufficient to scanty over East Sikkim during the period.
- Isolated rain / thundershowers are likely to occur over the State.

- As there was no significant rainfall during last week and dry weather is likely to prevail over the State for the next three days, apply irrigation to *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root, orange and ginger crops.
- Maintain water level of 3-4 cm in the rice field.

- Continue harvesting of large cardamom, ginger and orange.
- Monitor orange for fruit flies. Prepare baits made of Sevin and keep once in every 10-15 days till harvesting.
- Undertake intercultural operations and application of fertilizers in rabi vegetable crops like cabbage, cauliflower, carrot and beet root to keep the field weed free.
- Continue land preparation and sowing of mustard in the field using residual moisture. Use certified seeds for sowing.

## West Bengal

- On 29<sup>th</sup> October, light to very light rain occurred at a few places over Sub Himalayan West Bengal and on 31<sup>st</sup> October, moderate rain occurred at isolated places over Gangetic West Bengal. Weather was mainly dry over rest part of West Bengal on 29<sup>th</sup>, 31<sup>st</sup> and over West Bengal on 30<sup>th</sup> October.
- Isolated rain / thunder showers are likely over the State.

## Advisories

- As there was no significant rainfall during last week in the State and only isolated rain / thundershowers are likely to occur over the State for next three days, apply irrigation to sugarcane and arhar.
- Maintain 3-5 cm water in the field of *aman* rice wherever crops are at grain formation stage.
- Drain out water from the *aman* rice field 10 15 days before harvesting. Start harvesting of already matured crops on bright sunny days.
- Prepare land and start sowing of mustard, rapeseed, gram, lentil and *rabi* arhar and planting of potato.

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

## <u>Gujarat</u>

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

## Advisories

- As there was no significant rain during last few weeks over the State and mainly dry weather is likely to prevail over the State for next three days, apply irrigation to sugarcane, *kharif* cotton and castor.
- In some places cotton crop is infested with mealy bug. Monitor the crop for mealy bug and if damage exceeds ETL, to control the pest spray Methyl dimeton 25 EC @ 10 ml or Phosphamidon 85 EC @ 5 ml or Dimethoate 30 EC @ 10 ml in 10 liters of water.
- Drain out water from the rice field 10 15 days before harvesting. Start harvesting of already matured crops on bright sunny days.
- Harvest already matured crops of *kharif* groundnut.
- Undertake sowing of mustard variety G-Mustard 1-2-3 & Varuna with basal fertilizer doze of 25kg. Nitrigen & 50 kg Phosphorous per hactare. Wherever deficiency of sulphur in soil apply 40 kg sulphur as a basal doze.
- Prepare land for sowing of wheat.

## **Chhattisgarh**

- Weather was mainly dry in all divisions of the State.
- Isolated rain / thundershowers are likely to occur over the State.

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

## <u>Maharashtra</u>

- Mainly dry weather prevailed all over the State.
- Isolated rain / thundershowers are likely over the State.

## Advisories

- As there was no significant rain in most of the districts of the State during last few weeks & isolated rain/thundershowers are likely over the State during next three days, apply irrigation to sugarcane (Pre-seasonal), sugarcane (suru), irrigated cotton, kharif cotton, kharif tur, rabi jowar and safflower.
- Maintain 3-5 cm water in the rice field wherever the crops in grain formation stage.
- Apply 50 kg Nitrogen/ha to black soil, 40 kg/ha to medium & 25 kg Nitrogen/ha to low fertile soil after 25 to 30 days from sowing of *rabi* jowar.
- Apply 35 kg Nitrogen/ha after 30 days from sowing of *rabi* safflower at the time of first irrigation.
- Mild incidence of sap sucking insect, aphids & jassids in Amravati in *kharif* cotton & boll worm in Nagpur, Latur & Aurangabad division in *kharif* cotton and irrigated cotton and pod borer in Nashik and Pune division in *kharif* tur is reported.
- For the control of Sap sucking insects and aphids & jassids in cotton, spray 5% Neem extract or release 10,000 to 15000 larvae of Crysoperla carnea and if infestation exceeds economic threshold level, spray 30 % WSC Diamethoate 1000 ml or 25 % WSC Methyl dimeton 320 ml / ha in 500 liters water.
- For the control of boll warm in cotton implement integrated pests management method. Monitor the crop for same & if exceeds economic threshold level, spray 36 % WSC Monocrotophos 850 ml or 25 % WSC Quinolphos 1000 ml /ha in 500 liters water.
- Monitor the crop for pod borer in tur & if exceeds economic threshold level, first spray 250 diseased larvae of Nuclear poly hydrosis virus followed by 35 EC Endosulphan 1000 ml/ha in 500 liters water 3 times by 15 days interval.
- This is the proper time for sowing of *rabi* Jowar, gram and safflower and planting of potato and onion. Select varieties from Selection-3 for low fertile soil, Maldandi, Mauli, Phule chitra, SPV-86 for Madhya Maharashtra, SPV-669, AKSV-13-R for Vidarbha & PKV-809, SPV-1411 for Marathwada for medium & black soil for *rabi* jowar and Girna for Khandesh, Sharda for Marathwada, Bhima, JLSF-414 for Madhya Maharashtra & AKS-207 for Vidarbha for safflower. For planting of potato select a variety from Kufri Sinduri, Kufri Lavkar & Kufri Jyoti. Select varieties from Vikas, Phule G-12, Vishwas, Vijay, Vishal & Virat for gram and select varieties from Banshi N-59, Sarbati N-8223, N-5749 & Panchwati for non-irrigated & HD-2189, HD-2278, DWR162, MACS-2489, Trimbak, Godavari, Tapovan & Vimal for irrigated wheat.

## Madhya Pradesh

- Dry weather prevailed over the State.
- Isolated rain / thundershowers are likely over East Madhya Pradesh and mainly dry weather likely over rest region of the State.

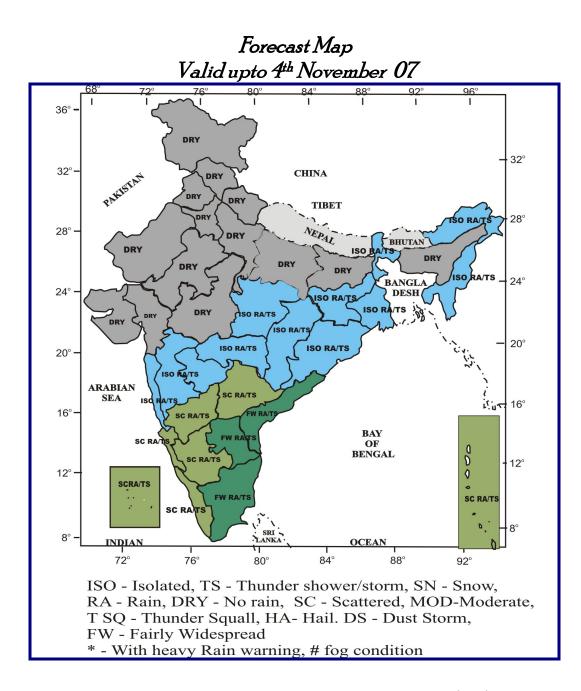
#### Advisories

- As dry weather prevailed during last week and rain / thundershowers are likely to occur over East Madhya Pradesh and dry weather is likely to prevail over West Madhya Pradesh for the next three days, apply irrigation to sugarcane and cotton.
- Undertake intercultural operation in sugarcane to keep the field weed free.
- Continue harvesting soyabean, jowar and rice on bright sunny days.
- Undertake sowing of *rabi* crops like linseed, lentil, gram and mustard by utilizing residual moisture. Undertake seed treatment with Thiram @ 1.5 g/kg seeds followed by Rhizobium culture before sowing.
- Undertake nursery sowing of cabbage, cauliflower and onion. If seedlings are at proper age, transplanting in the main field may be started.
- Undertake sowing of coriander, spinach and methi in the main field.

#### <u>Orissa</u>

- Heavy rain occurred at isolated places over South Coastal Orissa on 31<sup>st</sup> October. Rainfall occurred at most places over Coastal Orissa and at a few places over interior Orissa on 31<sup>st</sup> October.; at isolated places over south Orissa on 30<sup>th</sup> October. Weather had been dry over Orissa on 29<sup>th</sup> October; over North Orissa on 30<sup>th</sup> October.
- Isolated rain / thundershowers are likely to occur over the State.

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



## Salient weather features for the week ending 31/10/07

#### METEOROLOGICAL ANALYSIS

- Last week's low pressure area over South-West Bay of Bengal off Tamil Nadu coast and adjoining Sri Lanka moved westwards across extreme south peninsula and emerged into South-East Arabian Sea on 25th October. It became well marked over the same region on 26th evening. It concentrated into a depression and lay centred at 2330 hours IST of 27th over South-East Arabian Sea near Lat 10.5° N and Long 66.5° E. Remaining practically stationary, it intensified into a deep depression at 0830 hours IST of 28th October. It moved slightly northwards and lay centred at 0830 hours IST of 29th over South-East Arabian Sea near Lat 11.5° N and Long 66.5° E. It then moved westwards and lay centered at 0830 hours IST of 30th near Lat 11.5° N and Long 65.5° E and at 0830 hours IST of 31st over South-East and adjoining South-West Arabian Sea near Lat 11.5° N and Long 64.0° E.
- An upper air cyclonic circulation lay over south Andaman Sea extending upto 3.1 km above mean sea level on 25th and over South-East Bay of Bengal on 26th. Under its influence, a low pressure area formed over South-East and adjoining South-West Bay of Bengal on 27th. It moved westwards and concentrated into a depression and lay centred at 2330 hours IST of 27th over South-West and adjoining South-East Bay of Bengal near Lat 11.5° N and Long 85.5° E about 600 km east-southeast of Chennai. The system moved further westwards and lay centred at 0830 hours IST of 28th over

South-West Bay of Bengal near Lat 11.5° N and Long 84.5° E, about 480 km southeast of Chennai. It then moved west-northwestwards and weakened into a well marked low pressure area over West-Central and adjoining South-West Bay of Bengal, north coastal Tamil Nadu and south Coastal Andhra Pradesh at 0830 hours of 29th. The well marked low pressure area persisted over the same region on 30th and lay as a low pressure area over West-Central Bay of Bengal and adjoining Coastal Andhra Pradesh on 31st.

- An upper air cyclonic circulation in lower tropospheric levels lay over Gangetic West Bengal on 26th, over Sub-Himalayan West Bengal & Sikkim and neighbourhood on 27th, over northeastern States on 28th and moved away eastwards thereafter.
- An upper air cyclonic circulation lay over north Pakistan and adjoining Jammu & Kashmir between 2.1 & 4.5 km above mean sea level on 29th, over Jammu & Kashmir and neighbourhood on 30th and moved away eastwards on 31st.

#### RAINFALL

Under the influence of the above systems:

- Widespread rainfall with scattered heavy to very heavy falls occurred over south Coastal Andhra Pradesh, Rayalaseema and Tamil Nadu on 25th, 29th & 30th. Isolated extremely heavy falls (25 cm or more) also occurred over these regions during this period. Fairly widespread rainfall with isolated heavy falls occurred over these regions during remaining days of the week.
- Scattered to fairly widespread rainfall occurred over Andaman & Nicobar Islands, South Interior Karnataka, Kerala and Lakshadweep during the week and over north Coastal Andhra Pradesh and coastal Orissa during last two days of the week.
- Isolated rainfall/thundershowers occurred over Coastal & North Interior Karnataka, Konkan & Goa, Telangana, interior Orissa and West Bengal & Sikkim during a few days of the week.
- Mainly dry weather prevailed over the remaining parts of the country during the week.

#### TEMPERATURE

#### MINIMUM

The minimum temperatures were below normal by 2-4°C over many parts of northeast, east and adjoining central India during many days of the week and over northwest India during last two days of the week. They were above normal over Rajasthan and nearly normal over remaining parts of the country during many days of the week.

#### MAXIMUM

The maximum temperatures were above normal by 2-4°C over many parts of central, west and northeast India during many days of the week. They were below normal by 2-5°C over extreme south peninsula during the week and over northeast peninsula and Orissa during last two days of the week. They were nearly normal over remaining parts of the country during the week.

#### RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 31<sup>st</sup> OCTOBER, 2007)

Rainfall was excess/normal in 7, deficient/scanty in 9 and no rain in 20 out of 36 meteorological subdivisions (Actual: 11.9 mm, Normal: 10.2 mm and Departure: +16 %).

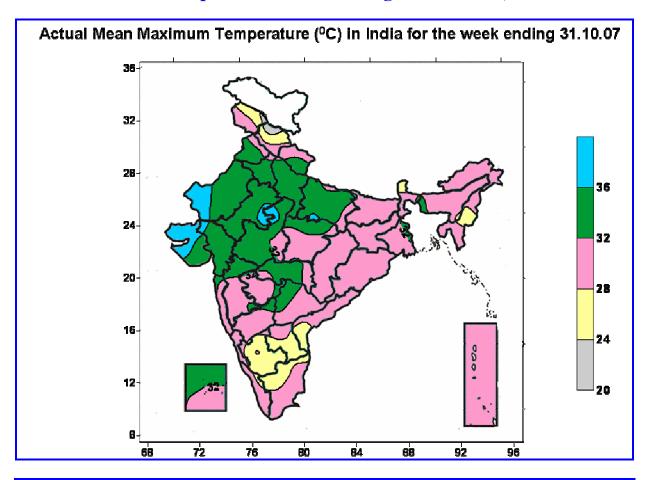
#### CUMULATIVE SEASONAL RAINFALL (1<sup>st</sup> OCTOBER TO 31<sup>st</sup> OCTOBER, 2007)

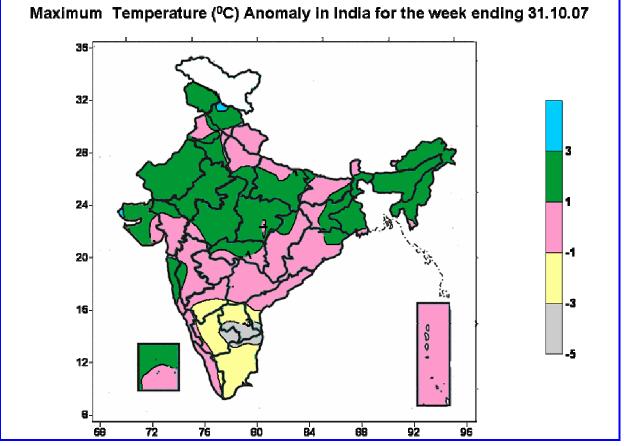
Rainfall was excess/normal in 10 and deficient/scanty in 21 and no rain in 5 out of 36 meteorological sub-divisions. (Actual: 54.9 mm, Normal: 78.4 and Departure: -30%).

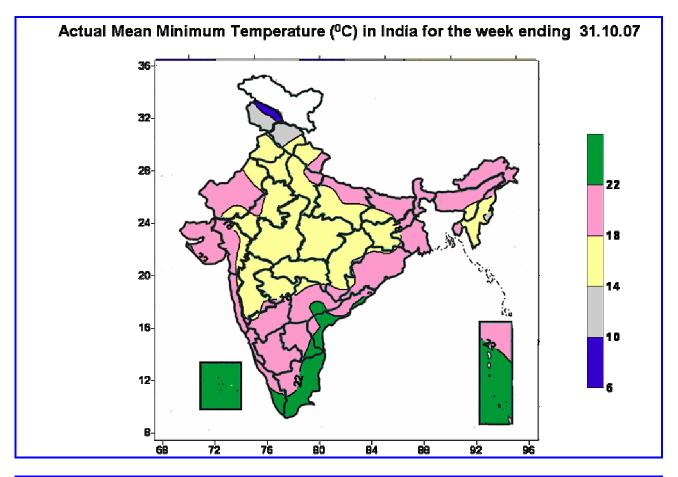
## OUTLOOK FOR THE WEEK ENDING ON 7<sup>TH</sup> NOVEMBER, 2007.

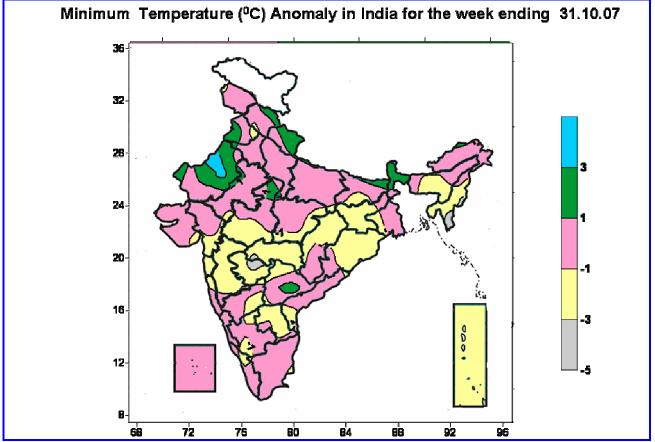
- Scattered to fairly widespread rainfall likely over extreme south peninsula, Andaman & Nicobar Islands and Lakshadweep.
- Gradual fall in night temperatures over northern plains of the country.

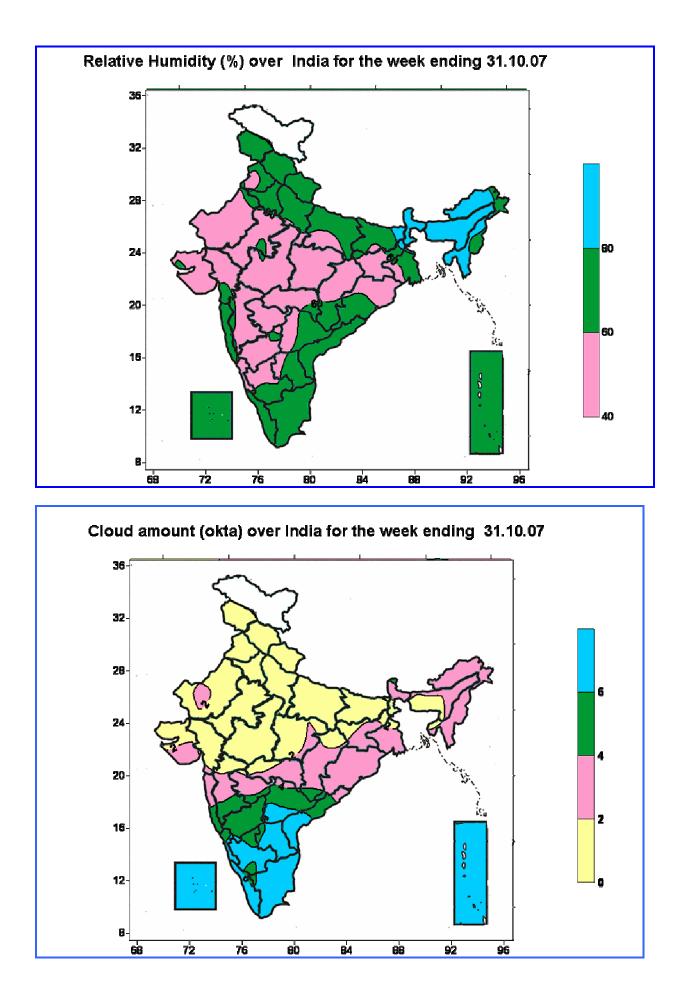
## Contour maps for the week ending 31<sup>st</sup> October, 2007













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

## CROP-STATE-STAGE

		Delhi		
Vegetables	Early sown vegetables	Mustard, Wheat	Berseem, Gram	
Transplanting	Vegetative	Sowing	Sowing	
q		Haryana	<b>D</b> 11	
Sugarcane	Horticultural crops	Cotton	Paddy	Kharif Groundnu   Pod formation /
Vegetative	Vegetative	Picking	Grain harvesting	maturity
Rabi Pulses	Wheat			
Sowing	Sowing			
		Himachal Pradesh		-
Vegetables (Ladies finger/ Cabbage, Cauliflower)	Potato	Apple Rice		Wheat / Barley / Gram / Oil seeds
Vegetative/ head formation Ladies finger Flowering/Fruiting	Maturity / harvesting	Harvesting Maturity / harvesting		Land preparation & sowing
<u> </u>		Jammu & Kashmir		•
Vegetable crops	Rice	Maize	Pulses / wheat / brown sarsun	Mustard, gobe sarso
Sowing / transplanting	Maturity / harvesting- Jammu div.	Cob maturity / harvesting		
		Punjab		
Sugarcane	Autumn sugarcane	Horticultural crop	Cotton	Paddy
Vegetative	Germination	Vegetative	Picking	Harvesting
Kharif Groundnut	Wheat	Rabi pulses		
Pod formation / maturity	Sowing	Sowing		
		Rajasthan		
Zaide Fodder	Cotton	Rabi crops(Mustard,barle y, taramira, gram)		
Vegetative	Picking	Sowing		
		Uttar Pradesh		
Sugarcane	Kharif Vegetables	Mango	Rice	Toria
Vegetative	Flowering / fruiting / maturity	Vegetative	maturity / harvesting	Early vegetative
Kharif oilseeds	Winter vegetables	Rabi pulses, wheat		
Maturity/ harvesting	Sowing	Field preparation & sowing		
		Uttarakhand		
Toria / nea	Ginger	Sugarcane	Potato	Kharif Rice

Toria / pea	Ginger	Sugarcane	Potato	Kharif Rice
Vegetative / flowering	maturity	Grand growth	seedling	harvesting
FingerMillet/ Amranthus	Mango/Litchi			
maturity	Seedling			

			Assan	1			
Winter vegetables	Sugarcane			Arhar Sali rice			Black Gram & Green Gram
Land preparation & sowing	Harvestin	g	Vegetative		Flowering / grain formation		Vegetative / flowering
		I	Arunachal P				
WRC Rice	Ginger	Ginger		llet	Jhum Paddy		Potato
grain formation / maturity	Rhizome maturity		Grain formation/ maturity		Grain formation / maturity		Planting
Rabi Vegetables	Wheat / Mustard / potato		Pea / rabi maize				
transplanting	Sowing			ving			
Vegetables & fruit	Maize fodder		Bihar		Sugaraana		Kharif rice
crops			Arhar		Sugarcane		Grain formation /
Sowing	Sowing		Vege	tative	Vegetative		maturity
Pulses	Rabi Oilseo	eds					
vegetative	sowing						
			Jharkha	ind			TT 1 1
Kharif rice	Potato			Brinj	bles (Tomato, al, Bhendi)		Upland crops ze, arhar, groundnut, bean, urad, rice and ragi)
Grain formation	Planting			Sowing Early sown – Early vegetative			Harvesting
Pea							
Sowing							
-			Sikkin				
Orange Maturity/ harvesting	Vegetable Early vegetat	ive /	Capsule	maturity/	Ginger Rhizome maturi		<b>Rice</b> Grain formation
	vegetative	e	West Ber	esting	early harvestin	Ig	
Sugarcane	Groundnut		Arh		Aman rice		Mustard / Rapeseed /Potato
Cane development	Pod maturity / harvesting		Vegeta flowe		Grain formatio maturity	n /	Land preparation / sowing
Rabi arhar							
sowing							
			Chattisg	arh	I		
Sugarcane	Rapeseed, N	0	Khari	f Rice	Tomato, Brinj Chilli		Toria
Vegetative	Land preparation & sowing		Grain fo	Formation Vegetative / flowering			vegetative
			Gujara	at			
Sugarcane	Kharif Rice		Cas	Castor Kharif Ground		nut	Kharif Cotton
Cane development / early maturity	Maturity / harv	aturity / harvesting Spike fo		ormation	Pod maturity / harvesting		Boll formation/ boll maturity / picking
Mustard / wheat Land preparation & Sowing							
0			Maharas	htra		I	
Sugarcane Preseasonal (Madhya Maharashtra, Marathwada & Vidarbha)	Sugarcane (S (Madhya Mahr Marthwada Vidarbha	ashtra, and	(Ma) Mahar Marath	rigated cotton (Madhya K/ Aaharashtra, (arathwada & (l Vidarbha)			<i>Kharif</i> Rice (Madhya Maharashtra, Marathwada & Vidarbha)
Active growth / elongation	Active grow elongation		Boll formation/ boll maturity / picking		Grain formation / a maturity / harvest		Grain formation / grain maturity

<i>Kharif</i> Jowar (Madhya Maharashtra, Marathwada & Vidarbha)	<i>Kharif</i> Groundnut (Madhya Maharashtra, Marathwada & Vidarbha)	adhya Maharashtra, Marathwada & Maharashtra, Marathwada &		Rabi Jowar
Grain maturity / harvesting	Pod maturity / harvesting	Boll formation /	Flowering / pod formation	Sowing
Rabi onion / gram	<i>Kharif</i> Sunflower (Madhya Maharashtra, Marathwada & Vidarbha)	maturity Kharif Soyabean (Madhya Maharashtra, Marathwada & Vidarbha)	Rabi potato	Early sown jowar
planting	Seed maturity / harvesting	Pod maturity / harvesting	planting	Germination / early vegetative
Rabi Safflower	Early sown safflower	Gram	Early planted potato	Wheat
Sowing	Germination / early vegetative	planting	sprouting	Sowing
	vegetative	Early sown gram		
		germination		
	•	Madhya Pradesh		
Sugarcane	Kharif crops(maize, urd and jowar)	Kharif rice	Soyabean	Cotton
Grand growth	harvesting	harvesting	Harvesting stage	harvesting
Rabi crops	Rabi vegetables			
sowing	Nursery sowing			
		Orissa		
Kharif vegetables	Kharif rice	Sugarcane	Arhar	
Vegetative / fruiting	Grain formation / maturity	Vegetative	Vegetative	
	-	Andhra Pradesh		
Kharif Rice	Kharif Cotton	Kharif Groundnut		
harvesting	picking	Pod development		
	1	Karnataka		
Sugarcane (Ratoon crop)	Kharif maize,Jowar, cotton, groundnut, sunflower	Rabi Jowar/Maize/Cott on/ Sunflower		
Grand growth	maturity / harvesting	Early vegetative / vegetative		
		Kerala		
Rubber	Mundakkan Rice			
Tapping	Panicle initiation			
		Tamil Nadu		
Rice (Samba)	Sugarcane (Early, Mid and Late season)	Maize Groundnut/Black gram/Green gram/Red gram		Cotton
Vegetative	Grand growth Late Sugarcane- Harvesting	flowering	Sowing	Picking
Jowar/Bajra/Samai	Special season sugarcane	Early sown jowar / bajra / samai	Early sown Groundnut/Black gram/Green gram/Red gram	
Sowing	Early vegetative	Early vegetative	Early vegetative	