

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

# Agricultural Meteorology Division, India Meteorological Department, Pune, India

# Thursday, 3rd January, 2008

(For the period 3<sup>rd</sup> to 7<sup>th</sup> January, 2007)

The extended version of the bulletin is also available at <a href="http://imdagrimet.org">http://imdagrimet.org</a>

# Agromet Advisory

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

# **Punjab**

- Weather remained mainly dry during the period. Cold wave condition prevailed in many parts of the State. Cold wave to Severe cold wave conditions are prevailing in the State with temperatures dipping below freezing levels in some pockets.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over some parts of the State during next 1- 2 days and abate thereafter.

# **Advisories**

- As the prevailing cold wave condition is likely to continue over the State for next 1-2 days, apply light and frequent irrigation to sugarcane, *rabi* oilseeds, pulses, early sown wheat and Horticultural crops.
- Continue picking of cotton.
- Monitor the sugarcane crop for shoot borer infestation & if exceeds economic threshold level, for effective control spray Endosulfan 50 EC @ 600 ml in 600 liter of water/acre.
- Late blight of potato has been observed in pockets. If required, spray Ridomil MZ or Curzate@700 g per acre in 250 -350 liter of water.

## Haryana

- Weather remained mainly dry during the period. Cold wave conditions prevailed in many parts of the state during the period. Cold wave to severe cold wave conditions are prevailing in Haryana with temperatures dipping below freezing levels in some pockets.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over some parts of the State during next 1- 2 days and abate thereafter.

# **Advisories**

- As dry weather and cold wave condition is likely to continue over the State for next 1-2 days, apply light and frequent irrigation to sugarcane, *rabi* oilseeds, pulses, timely sown wheat and Horticultural crops.
- Continue picking of cotton.
- Monitor the sugarcane crop for shoot borer infestation & if exceeds economic threshold level, for effective control, spray 600 ml Endosulfan 50 EC in 600 liter of water/acre.

# Rajasthan

- Weather remained mainly dry in all divisions of the State.
- Mainly dry weather is likely over the State. Cold wave conditions are likely over some parts of north Rajasthan during next 1-2 days.

- Cold wave conditions are likely to prevail over north Rajasthan for the next 1-2 days. Apply irrigation and arrange for smoking in and around the field to prevent the crops from cold injury.
- Apply irrigation to early sown *rabi* crops *viz.*, wheat, potato, mustard, barley, taramira and gram as there was no rainfall during last week and mainly dry weather is likely for the next three days.
- Undertake intercultural operations in gram, mustard and tarmira to keep the field weed free.

# **Uttar Pradesh**

- Cold wave conditions prevailed over some parts of south west U.P and East. U.P and likely to continue on 31<sup>st</sup> December. Cold wave condition continues to prevail over some parts of U.P. where as it was severe at isolated places in extreme East UP and extreme West UP on 1<sup>st</sup> January. Cold wave conditions still prevails over some part of U.P. on 2<sup>nd</sup> January and weather were mainly dry in all divisions of U.P.
- 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, apply irrigation to wheat, vegetable, pulses, rai, mustard and toria.
- Prepare the field and undertake sowing of onion.
- Spray the solution of Dimethoate 1.5 ml/litre of water to control stem borer in turmeric.
- Harvest the matured winter vegetables and potato.

# **Himachal Pradesh**

- Weather was mainly dry.
- Isolated rain/snow is likely over the State from 5<sup>th</sup> January onwards.

# **Advisories**

- As there was no rain during last week and only isolated rain/snow is likely over the State from 5<sup>th</sup> January onwards, apply irrigation to vegetables and toria and wheat, barley, gram and rapeseed and mustard crops.
- Apply second dose of CAN @ 13 kg per Bigha or Urea @ 6.5 Kg per Bigha to cauliflower and cabbage.
- There is mild chance of attack of leaf spot disease in cabbage and cauliflower. If attack crosses economic threshold level, spray Dithane M-45 to control the disease.
- Continue sowing of spinach, raddish and carrot in low and mid hills.
- Prepare land and complete sowing of sarson within this month.
- Continue sowing of Autumn varieties of potato.
- Provide mulch to apple in the basins for soil moisture conservation and protection against winter injury. White wash the trunks to protect against sun burn and cold injury.

# Uttarakhand

- Mainly dry weather prevailed during the week. Frost occurred at few places during the period.
- Isolated rain/snow is likely over the State from 5<sup>th</sup> January onwards.

- Due to decrease in minimum temperature, farmers are advised to apply light and frequent irrigation and arrange for smoking in the field and orchards to prevent the young crops from cold injury.
- As there was no rainfall in the State during last week and mainly dry weather is likely over the State, apply irrigation to potato and wheat.

- Undertake intercultural operations in orchards to keep the field weed free.
- Undertake harvesting of matured crops of sugarcane, pea and toria.

# Jammu & Kashmir

- Weather remained mainly dry over J&K divisions.
- Isolated rain/snow is likely over the State from tomorrow onwards.

#### **Advisories**

- Due to decrease in minimum temperature, farmers are advised to apply light and frequent irrigation and arrange for smoking in the field to prevent the crops from cold injury.
- Apply light irrigation to vegetables, pulses, wheat and oilseed crops as there was no significant rainfall in the State during last week and isolated rainfall is likely over the State.
- Farmers are advised to go for late sowing of radish (varities: Pusa Himani) and spinach (all green prickly seed) should be done without any delay. Rough out virus affected plants in tomato, brinjal, cabbage and cauliflower.
- Apply first dose of urea in wheat (20-25 days crop) in Jammu division.
- Continue harvesting matured toria in Jammu division.

# Delhi

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

#### **Advisories**

- As there was no rainfall in the State during last few weeks and mainly dry weather is likely over the State for the next three days, apply irrigation to vegetables, mustard, gram, barley and wheat.
- Prepare field and complete sowing of wheat within this month. It is recommended to sow late varieties like UP 2338, UP 2425, HD 2285, Raj 3077, Raj 3765, PBW-226, PBW-373 etc. Adopt seed rate of 125 150 kg / ha. Sow seeds in line keeping distance between lines of 15 20 cm. Treat the seeds with 2-3 g Bavistin 50 WP / kg to avoid the spread of kadwa disease.
- Prepare land and sow Nanteez variety of carrot and Pusa Himani variety of raddish.
- Transplant onion seedlings. Prepare land for transplanting of brinjal and tomato.
- To control wild oats and *Phalaris minor* in early sown wheat crop Apply Isoprotoran 75% W.P. @ 1 kg/ha and 2,4-D. Amine Salt 58% E.C. @ 750-1000 ml/ha for controlling broad leaved weeds after 28-35 days. Apply half of the remaining dose of nitrogenous fertilizer at 21 25 days after sowing of wheat.

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

#### Kerala

- Dry weather prevailed over the State during this period.
- Isolated rain/thundershowers are likely over the State after 48 hours.

- As there was no significant rainfall during last week and rain/ thundershowers is likely to
  occur after 48 hours only, apply irrigation to plantation crops viz., coconut, arecanut, rubber
  and banana.
- Attack of rhinoceros beetle, red palm weevil, mite and leaf rot is reported in coconut. Fill the leaf axils with Sevidol 8G @ 25 gm mixed with 200 gm fine sand to control rhinoceros beetle. 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. Prophylactic spraying with 2% neem oil + garlic emulsion may be done in the crown and bunches, 2<sup>nd</sup> to 7<sup>th</sup>

bunches from top avoiding unpollinated inflorescence to control mite. Use pheromone trap to monitor and control red palm weevil.

- Attack of pseudo stem weevil, banana rhizome weevil and bunchy top disease is reported in banana. Adopt strict field sanitation. If the attack is severe spray Quinalphos @ 0.05%. Spraying / drenching may be done on the leaf axils, rhizome, surrounding soil and all around the entire pseudo stem. Apply 12.5 gm. Phorate 10G or 10 gm. Carbofuran 3G per plant in leaf axil or 25 gm Phorate or 20 gm. Carbofuran per pit in soil, 70 days and again 165 days after planting to control bunchy top disease.
- Continue harvesting of pepper on bright sunny days.
- Continue nursery sowing, intercultural operations and application of fertilizers.
- Harvest the matured mundakan rice crops in bright sunny days. Nursery raising and land
  preparation may be started for puncha rice crop in areas where mundakan crop is harvested.
  Sowing of sesamum, pulses and vegetable crops may be undertaken if puncha rice nursery is
  not raised.

# **Tamilnadu**

- Dry weather prevailed over the State on 31<sup>st</sup> December, 1<sup>st</sup> and 2<sup>nd</sup> January.
- Isolated rain/thundershowers are likely over the State from tomorrow onwards.

## **Advisories**

- As there was no rainfall in most of the districts during last week and rain/thundershowers is likely to occur at isolated places, apply irrigation to sugarcane and early sown maize, groundnut, black gram, green gram and pulses.
- Monitor maize for stem borer and aphids and if the pest population crosses ETL, spray Carbaryl 50% WP @ 400 g/acre to control the pest.
- Continue sowing of rainfed groundnut, black gram, green gram and red gram in coastal Tamilnadu. Use 112 kg pods / ha for groundnut and 20 kg / ha for pulse crops.
- Continue sowing of rainfed millet crops like jowar, bajra and samai. Undertake seed treatment with *Azospirillum* before sowing.
- Continue picking of matured cotton bolls on bright sunny days. Picking may be done at early morning hours to maintain quality of kapas.
- Undertake intercultural operations to keep the field weed free.

# Karnataka

- Dry weather prevailed over the State on all days.
- Mainly dry weather is likely over the State.

#### **Advisories**

- As there was no significant rainfall over the State during last week and dry weather is likely to prevail for the next three days, apply irrigation to sugarcane, *rabi* jowar, maize, cotton and sunflower.
- Undertake intercultural operations in sugarcane to keep the field weed free and propping to prevent the crop from lodging.
- Monitor *rabi* sunflower for powdery mildew and undertake spraying of Wettable Sulphur @ 3 g/litre of water, if required.

## **Andhra Pradesh**

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

## **Advisories**

• As there was no significant rainfall during last week and dry weather is likely over the State for the next three days, apply irrigation to red gram and chillies.

- Continue harvesting of rice and picking cotton.
- Monitor red gram for *Helicoverpa* and *Maruca* pod borer and if the pest population crosses ETL, spray NSKE @ 5% to control egg and early instar *Helicoverpa* larvae. To control adults, install bird perches @ 10-15 nos/acre. Arrange pheromone traps @ 4 per acre. To control Maruca pod borer, Spray Dichlorvas @ 1 ml + Lamda Cyhalothrin @ 2 ml or Dichlorvas 1 ml + Chlorpyriphos @ 2.5 ml per litre of water.
- Monitor black gram for yellow vein mosaic and to control the vector to prevent further spread
  of the disease, spray Monocrotophos @ 1.6 ml/litre of water or Dimethoate @ 2 ml/litre of
  water.
- The incidence of thrips and powdery mildew is noticed in chillies. To control thrips, spray Fipronil @ 2.0 ml per litre of water. To control powdery mildew, spray Wettable Sulphur @ 3.0 g per litre of water.

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

#### Assam

- Dry weather prevailed over the State. Partly cloudy sky on 2<sup>nd</sup> January and mainly clear sky during the rest period.
- Mainly dry weather is likely over the State.

## **Advisories**

- As there was no rain in the State during last week and mainly dry weather is likely over the State for next three days, apply irrigation to arhar, winter vegetables, other *rabi* crops and wheat.
- Continue harvesting of matured crops of sugarcane. Red rot infested sugarcane may be harvested early and the field should be newly planted. Ratooning of infested plant should be discarded.
- Prepare land for 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.
- Incidence of aphids and saw fly was noticed in mustard and rapeseed in few localities.
- Monitor mustard and rapeseed for aphids and saw fly and if the population exceeds economic threshold level, apply rogor or Malathion @ 2 ml / litre of water to control the disease.
- Low lying typical areas on common irrigation are to be selected for *boro* rice. Flat seedbed of size 125 cm breadth and 10 m in length with 30 cm gap between two seedbeds should be prepared and six such seedbeds should be prepared for transplanting one bigha of land. Pregerminated seeds of varieties such as Masuri, Joya, IR-36, IR-50 and Krishna Hamsa etc. are to be sown @ 650-1000 g per bed. Seed requirement for one bigha is roughly 6 Kg. For irrigated areas fertilizer should be applied @ 18 Kg Urea, 27 Kg SSP & 6 Kg MOP and for non –irrigated low lying area Urea 12 Kg, SSP 18 Kg & MOP 4 Kg may be applied.
- Start transplanting of *boro* rice seedlings in the main field.

# **Arunachal Pradesh**

• Mainly dry weather is likely over the State.

- As there was no rainfall in the State during last week and mainly dry weather is likely for the next three days, apply irrigation to vegetables, wheat, potato, pea, *rabi* maize and mustard.
- Harvest the matured crops of ginger, millet, wet seeded rice and *Jhum* rice.

- Apply first top dressing (33 kg Urea/ha) in potato and do earthing up.
- Undertake weeding and hoeing in pea, wheat, mustard and *rabi* maize to keep the field weed free.

# Bihar

- Dry weather prevailed over the State.
- Mainly dry weather is likely over the State.

#### Advisories

- As there was no significant rainfall in most of the districts during last few weeks and mainly
  dry weather is likely over the State, apply irrigation to arhar, wheat, gram, fodder maize and
  sugarcane.
- Complete sowing of raddish, spinach, and carrot.
- Continue field preparation and sowing of late sown wheat. Select varieties like HD 2285, HD 2307 HD 2329, HD 2643, HP 1744, HUW 234, HUW 2045, PBW 373, PBW 524 and Raj 3765. Use seed rate @ 150 Kg/ha.
- Heavy infestation of lucerne caterpillar is reported in early sown lentil. Spray Nuvan @ 500ml/ha or Monocrotophos @ 1 litre/ha. to control the pest.

# **Jharkhand**

- Cold wave condition prevailed at a few places over the State.
- Mainly dry weather is likely over the State.

#### Advisories

- Apply irrigation to vegetables, wheat and gram as there was no significant rainfall during last few weeks and mainly dry weather is likely over the State for the next three days.
- To protect potato crop from aphid, spray Mancozeb (2.5 gm/litre water) or Ridomil (1.5 gm/litre water).
- Hoeing and weeding, top dressing with 55kg Urea per hectare and irrigation may be done in wheat, if the crop has crossed the age of 25 days

#### Sikkim

- Sky remained partly cloudy during the period. During the week, weather was mainly dry over East Sikkim.
- Mainly dry weather is likely over the State.

# **Advisories**

- As there was no rainfall during last week and mainly dry weather is likely over the State for the next three days, apply irrigation to *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root and early sown wheat and mustard.
- Continue harvesting of orange.
- Undertake intercultural operations and application of fertilizers in mustard, wheat, *rabi* vegetable crops like cabbage, cauliflower, carrot and beet root. Keep mustard fields free from Satyanashi weed and wheat fields free from Hirankhuri weed.
- Undertake nursery sowing of large cardamom. In early sown crop, Chirkey and Foorkey infected plants may be destroyed by uprooting/burial at regular intervals. Regular inspection may be carried out to observe caterpillar/ shoot borer incidence, if any and may be hand picked and destroyed mechanically.

# **West Bengal**

- Weather was mainly dry during the period from 31<sup>st</sup> December 2007 to 2<sup>nd</sup> January, 2008 over Gangetic West Bengal and Sub Himalayan West Bengal.
- Mainly dry weather is likely to prevail over the State.

- As there was no rainfall in the State during last week and mainly dry weather is likely for next three days, apply irrigation to sugarcane, arhar and *rabi* crops like mustard, rapeseed, wheat, gram, lentil, potato, *rabi* arhar and sunflower.
- Apply half of remaining dose of N at 21 25 days after sowing of wheat.
- Keep vigil against late blight disease of potato. Uproot and burn the affected plants. Apply water soluble Mancozeb @ 2.5 g / litre of water in the remaining healthy plants.
- Keep vigil against red rot disease of sugarcane. Uproot and burn the diseased plants to prevent further spread of the disease.
- Low lying typical areas on common irrigation are to be selected for *boro* rice. Flat seedbed of size 125 cm breadth and 10m in length with 30cm gap between two seedbeds should be prepared and six such seedbeds should be prepared for transplanting one bigha of land. Pregerminated seeds are to be sown @ 650-1000 g per bed. Seed requirement for one bigha is roughly 6 Kg. Fertilizer should be applied @ 18 Kg Urea, 27 Kg SSP & 6 Kg MOP per bigha.
- Brown rust disease may appear in wheat. Spray Carboxyl or Oxycarboxyl @ 1gm / litre of
  water at 7-10 days intervals for 2-3 times if brown coloured rust is observed on the surface of
  the leaves.
- Generally, Zinc deficiency symptom may appear in some districts of South Bengal & most of the districts. of North Bengal in standing wheat Crop. So apply Zinc Sulphate @ 25Kg / ha after every 3 years interval. Also to check Boron deficiency, spray Borax / Sohaga @ 5gm / litre of water in the standing crops.

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

# Gujarat

- Severe cold wave conditions prevailed in parts of Kutch and Coastal Saurashtra on 31<sup>st</sup> December. Cold wave conditions prevailed in parts of Saurashtra, Kutch on 1<sup>st</sup> and 2<sup>nd</sup> January.
- Isolated rain/thundershowers are likely over the State during next 24 hours and mainly dry weather thereafter.

# **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 *kharif* cotton, castor, mustard and wheat.
- Stop irrigation 10 15 days before harvesting of sugarcane. Start harvesting the crop when brix reading of sugarcane will be 19 or more.
- 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.

# **Chhattisgarh**

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

- As there was no rainfall during last week in the State and mainly dry weather is likely over the State for next three days, apply irrigation to sugarcane, toria, vegetables, rapeseed and mustard and early sown wheat, potato and other *rabi* crops.
- Prepare land for sowing of wheat. Treat the seeds with thirum @ 3 g or bavistin @ 2 g / kg of seeds. Select varieties from Kanchan, Sujata, Amar, GW-273 and Bilasa for sowing.
- Prepare land for sowing of other *rabi* crops. Treat the seeds with thirum @ 3 g or bavistin @ 2 g / kg of seeds. Seeds of pulse crops may be treated with rizobium culture.

- Prepare land for plating of potato. Select varieties from kufri badsha, Kufri Jyoti, Kufri Bahar etc. Before planting treat the seeds by dipping them for 30 minutes in solution of thyrum @ 3 g or bavistin @ 2 g / litre of water.
- Due to partly cloudy sky conditions vegetable crops are likely to be affected by aphids and powdery mildew. Monitor the crop for the pest and disease and undertake plant protection measures.

# Maharashtra

- Rainfall occurred at isolated places in Marathwada and West Vidarbha. Dry weather prevailed over rest of the State.
- Isolated rain/thundershowers are likely over Konkan and north Madhya Maharashtra during next 24 hours and mainly dry weather thereafter. Mainly dry weather is likely over remaining regions.

## **Advisories**

- As there was no significant rain in the State during last week & isolated rain/thundershowers are likely over Konkan & Goa, north Madhya Maharashtra during next 24 hours and mainly dry weather thereafter and mainly dry weather is likely to occur over the rest region, apply irrigation to sugarcane (Pre-seasonal), sugarcane (*suru*), *kharif* tur, *rabi* jowar, safflower, potato, gram, onion, wheat and maize.
- 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.
- Second dose of 50 kg Nitrogen / ha may be applied to potato as top dressing after weeding.
- Second dose of 50 kg Nitrogen / ha may be applied after 30 days from planting of onion & irrigation may be given immediately.
- Apply second dose of 60 kg Nitrogen / ha at 30 days after sowing of wheat.
- Mild incidence of white woolly aphids in Ahmednagar and Pune districts in Sugarcane (pre-seasonal) & sugarcane (*Suru*), pod borer in Aurangabad division in *kharif tur*, sugary disease in Pune division in *rabi* jowar and aphids in Nasik & Kolhapur division in safflower is reported.
- Monitor the Sugarcane (pre-seasonal) & sugarcane (*Suru*) for White Woolly Aphids & if exceeds economic threshold level, for effective control spray 500 ml Endosulphan 35%+ Metasystox 1000 ml & 500 ml Sticker or 500 gm detergent powder / ha in 500 liters of water. For the biological control of White Woolly Aphids, release 25000 larvae of *Chrysoperla carnea* or *Dipha aphidivora* / ha as predator after 15 days from the above dose.
- Monitor the crop for pod borer in tur & if exceeds economic threshold level, first spray 5% neem extract or 20 25 ml fenvalerate in 100 litres of water.
- Monitor the crop for sugary disease in *rabi* jowar & if exceeds economic threshold level, release 10-15 thousand *Chrysopha carnea* predators/ha. or spray 5% neem seed extract or Rogor 30 EC 500ml/ha or Nuvacron 36WSC 300ml/ha in 500 litres of water.
- For the biological control of aphids in safflower, release 10000-15000 larvae of Chrysoperla carnea or apply 5% neem extract.
- For the protection of blossom and to control the infestation of downy mildew / hoppers in mango, apply mixture of 300 mesh sulphur and 1.5% quinolphos powder in the ratio of 1:1 or spray 50% carbaryl powder @ 20 g plus 80% water soluble sulphur @ 25 gm. 2-3 sprayings may be done at 15 days interval.

## Madhya Pradesh

- Cold wave Condition prevailed in the parts of North East M.P. on 31<sup>st</sup> December and North M.P. on 1<sup>st</sup> January. Dry weather prevailed over the State.
- Mainly dry weather is likely over the State.

#### **Advisories**

 As there was no significant rainfall during last week in the State and mainly dry weather is likely over the State for next three days, apply irrigation to sugarcane, linseed, lentil, gram, mustard and wheat.

- Undertake intercultural operation in sugarcane and other *rabi* crops to keep the field weed free.
- Undertake weeding in wheat. Spray 2,4-D for broad leaved weeds and Isoproturan for monocot weeds. Broadcast urea @ 50 kg/ha as top dressing.

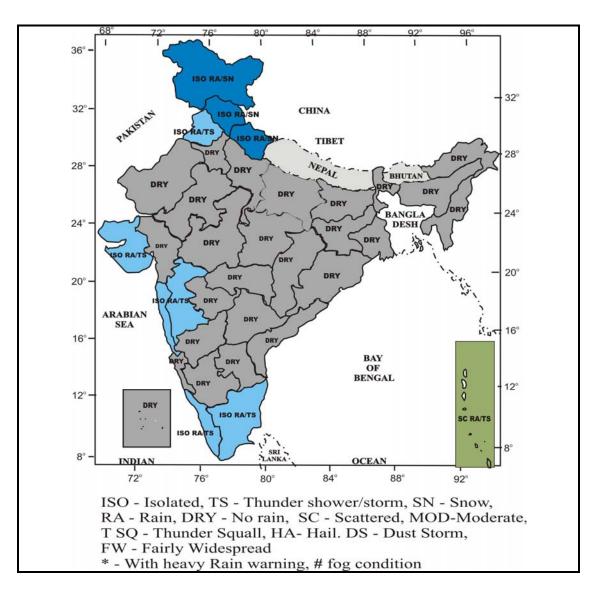
# Orissa

- Cold wave condition prevailed over some parts of the State on 1<sup>st</sup> and 2<sup>nd</sup> January. Weather
  has been mainly dry over the State during the above period.
- Mainly dry weather is likely to prevail over the State.

# **Advisories**

- As there was no significant rainfall over the State during last few weeks and mainly dry weather is likely to prevail over the State for the next three days, apply irrigation to vegetables, sugarcane, *rabi* oilseed and pulse crops.
- This is the proper time for nursery sowing of *Dalua* rice. Use varieties like Khandagiri, Parijat, and Lalat etc. Start main field preparation and transplanting of *dalua* rice. Use 6kg N, 12kg P, and 12 kg K per acre at the time of transplanting in short duration paddy.
- To control leaf eating caterpillar in groundnut spray Endosulfan @ 2ml per ltr of water and to control tikka disease spray copper oxychloride @ 2.5 gm/litre of water.

# Forecast Valid upto 6th January, 2008



# Salient weather features for the week ending 02/01/08

## METEOROLOGICAL ANALYSIS

- Last week's western disturbance as an upper air system over Jammu & Kashmir and neighbourhood persisted on 27<sup>th</sup> & 28<sup>th</sup> December and moved away eastwards thereafter.
- Another feeble western disturbance as an upper air system lay over north Pakistan and adjoining Jammu & Kashmir on 31<sup>st</sup> December and over Jammu & Kashmir and neighbourhood on 1<sup>st</sup> & 2<sup>nd</sup> January 2008.
- As both the above western disturbances lay in a relatively northerly latitude, strong northwesterly winds prevailed over Indo-Gangetic plains during many days of the week.
- An upper air cyclonic circulation extending upto 0.9 Km above mean sea level. lay over south Gujarat and neighbourhood on 31<sup>st</sup> December and over north Konkan and neighbourhood on 1<sup>st</sup> & 2<sup>nd</sup> January. A trough from this cyclonic circulation extended to West Madhya Pradesh on 1<sup>st</sup> & 2<sup>nd</sup> January.
- Easterly waves sometimes embedded with upper air cyclonic circulation at lower tropospheric levels passed through Andaman & Nicobar Islands and south Bay of Bengal during the week.

#### **RAINFALL**

Under the influence of the above systems:

- Isolated to scattered rain/thundershowers occurred over Andaman & Nicobar Islands on a few days
  of the week.
- Isolated rain/thundershowers occurred over Vidarbha, Marathawada and West Madhya Pradesh on 2<sup>nd</sup> January 2008.
- Mainly dry weather prevailed over remaining parts of the country during the week.

# MINIMUM TEMPERATURE COLD WAVE CONDITION

- Cold wave / severe cold wave conditions prevailed over some parts of Jammu & Kashmir, Punjab, Haryana, Chandigarh & Delhi and north Rajasthan during many days of the week and over some parts of East Uttar Pradesh, Bihar, Jharkhand, north Orissa and Saurashtra & Kutch during second half of the week.
- The minimum temperatures were also below normal by 2-4°C over remaining parts of Indo-Gangetic plains, Rajasthan, Jharkhand, north Orissa and Saurashtra & Kutch during many days of the week.
- The minimum temperatures were above normal by 2-5°C over Central India and adjoining Madhya Maharashtra, Marathawada, Vidarbha, north Andhra Pradesh, North Interior Karnataka and northeastern States during many days of the week.
- They were near normal over remaining parts of the country during the week.

# RAINFALL DURING THE WEEK (FOR THE WEEK ENDING ON 2ND JANUARY, 2008)

Rainfall was deficient/scanty in 5 and no rain in 31 out of 36 meteorological sub-divisions (Actual: 0.1 mm, Normal: 4.6 mm and Departure: -99 %).

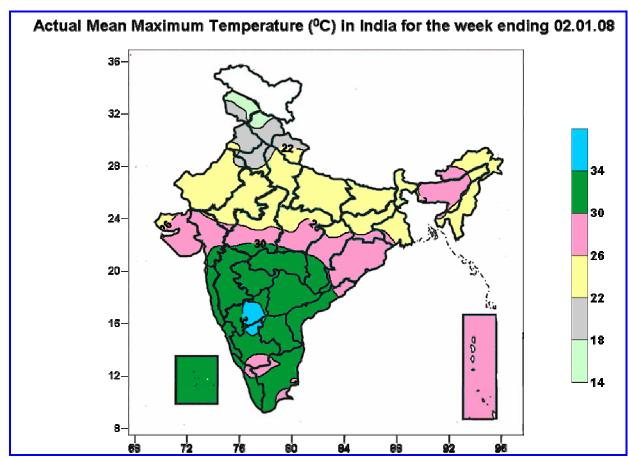
## CUMULATIVE SEASONAL RAINFALL (1ST OCTOBER TO 31ST DECEMBER, 2007)

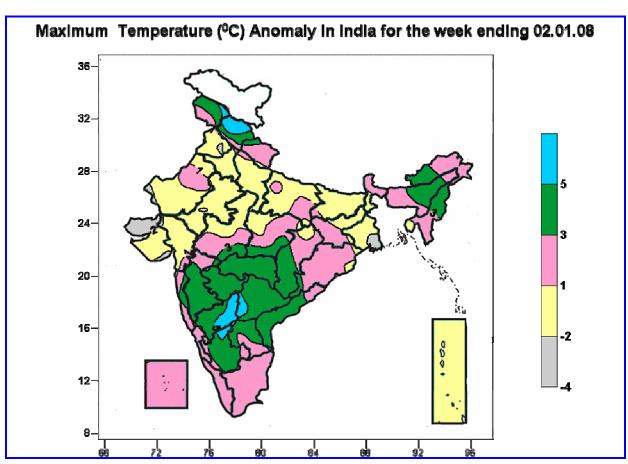
Rainfall was excess/normal in 9 and deficient/scanty in 27 out of 36 meteorological sub-divisions. (Actual: 85.4 mm, Normal: 125.9 mm and Departure: -32%).

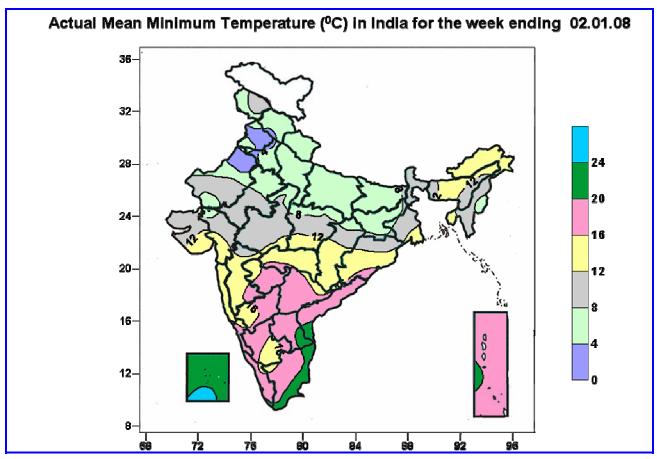
# OUTLOOK FOR THE WEEK ENDING ON 9TH JANUARY, 2008.

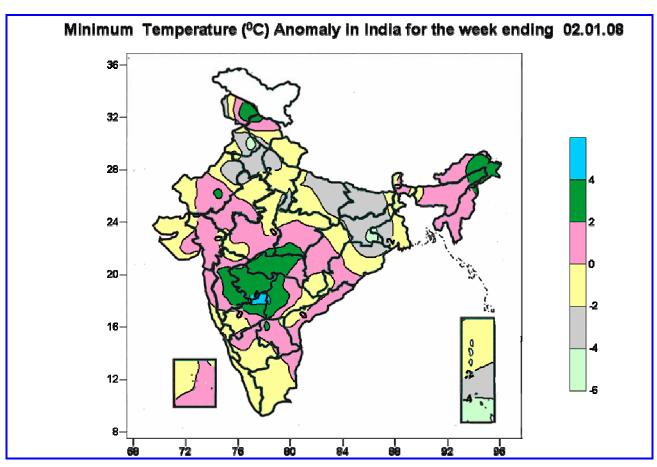
- A western disturbance is likely to cause isolated to scattered precipitation over Western Himalayan Region from 4<sup>th</sup> onwards for next 48 hrs. and Scattered to fairly widespread precipitation activity thereafter. Isolated to scattered precipitation is also likely over adjoining northern plains from 5<sup>th</sup> onwards.
- Rise in night temperatures likely over northwest India and Gangetic plains during next 4-5 days. However, the prevailing cold wave conditions over some parts of Haryana, Punjab and north Rajasthan likely to abate from 5<sup>th</sup> onwards.
- Day temperatures are likely to fall appreciably over plains of northwest India from 5<sup>th</sup> onwards and remain below normal for subsequent 3-4 days.
- Isolated to scattered rain/thundershowers activity is likely over extreme south peninsula, Andaman & Nicobar Islands and Lakshadweep Islands during first half of the week.

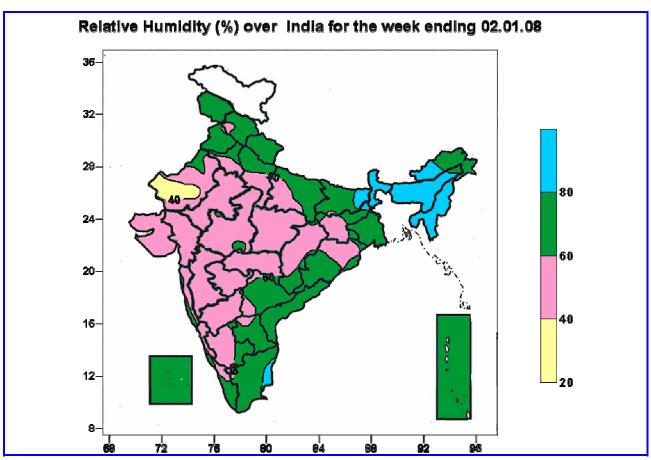
# Contour maps for the week ending 2<sup>nd</sup> January, 2008

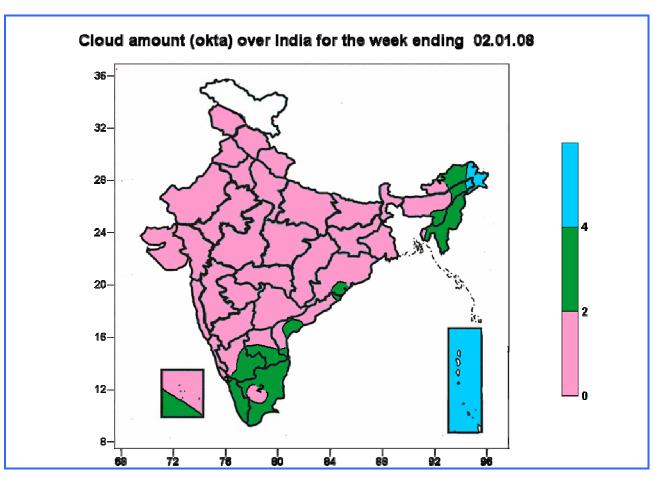


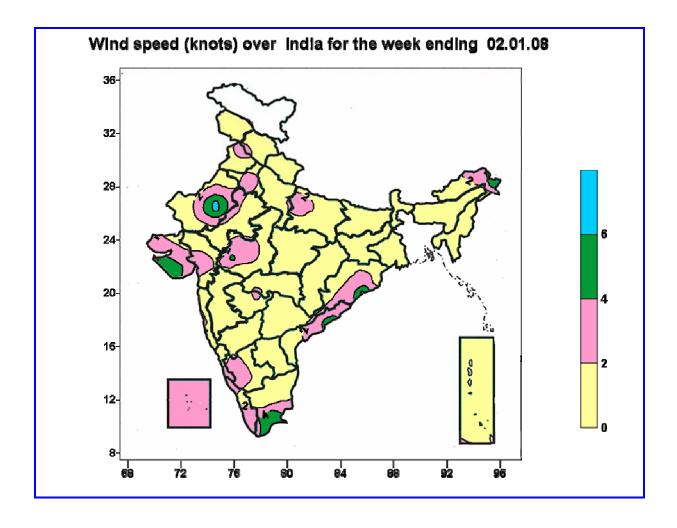














|               |          | Ra       | ainfall (m | m)       |          |          |          |
|---------------|----------|----------|------------|----------|----------|----------|----------|
| Station Name  | 27.12.07 | 28.12.07 | 29.12.07   | 30.12.07 | 31.12.07 | 01.01.08 | 02.01.08 |
| Amritsar      | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Barmer        | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Sriganganagar | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Jaisalmer     | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Kota          | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Deesa         | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |
| Churu         | 0.00     | 0.00     | 0.00       | 0.00     | 0.00     | 0.00     | 0.00     |

|                 |          | Temperat | ture (degre | e Celcius) |          |          |          |
|-----------------|----------|----------|-------------|------------|----------|----------|----------|
| Station<br>Name | 27.12.07 | 28.12.07 | 29.12.07    | 30.12.07   | 31.12.07 | 01.01.08 | 02.01.08 |
| Amritsar        | 11.5     | 10.0     | 11.0        | 10.0       | 08.5     | 09.0     | 09.0     |
| Barmer          | 18.5     | 18.0     | 17.5        | -          | -        | 16.0     | 16.0     |
| Sriganganagar   | 14.0     | 14.0     | 12.5        | 12.0       | -        | -        | 11.0     |
| Jaisalmer       | 18.5     | 17.5     | 16.0        | 14.0       | -        | 12.5     | 14.0     |
| Kota            | 19.0     | 18.0     | 17.5        | 16.5       | -        | 16.0     | 16.0     |
| Deesa           | 20.0     | 20.5     | 17.0        | 17.5       | 18.0     | 17.5     | 16.5     |
| Churu           | -        | -        | -           | -          | -        | -        | -        |

|                   |       |      |       |      |       | V    | Vind  |      |       |      |       |      |       |       |
|-------------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|-------|
| Station           | 27.1  | 2.07 | 28.1  | 2.07 | 29.1  | 2.07 | 30.1  | 2.07 | 31.1  | 2.07 | 01.0  | 1.08 | 02.0  | 01.08 |
| Name              | Speed | Dir.  |
| Amritsar          | -     | -    | -     | -    | WSW   | 06   | -     | -    | -     | -    | WNW   | 04   | NW    | 03    |
| Barmer            | WNW   | 08   | W     | 07   | W     | 04   | -     | -    | -     | -    | WNW   | 05   | NNE   | 10    |
| Sriganga<br>nagar | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -     |
| Jaisalmer         | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -    | -     | -     |
| Kota              | WSW   | 10   | WNW   | 08   | W     | 07   | -     | -    | -     | -    | -     | -    | SSW   | 13    |
| Deesa             | NW    | 06   | SSW   | 05   | SW    | 06   | -     | -    | -     | -    | SW    | 08   | N     | 02    |
| Churu             | WNW   | 06   | SW    | 29   | NW    | 10   | -     | -    | -     | =    | W     | 11   | NE    | 10    |

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

# CROP-STATE-STAGE

# Delhi

| Vegetables                   | Mustard                | Wheat   | Early sown wheat                    | Berseem     |
|------------------------------|------------------------|---------|-------------------------------------|-------------|
| Vegetative                   | Vegetative / flowering | Sowing  | crown root initiation               | Vegetative  |
| Gram                         | Barley                 |         |                                     |             |
| Vegetative                   | Vegetative             |         |                                     |             |
|                              |                        | Haryana |                                     |             |
| Sugarcane / Autumn sugarcane | Horticultural crops    | Cotton  | Wheat                               | Rabi Pulses |
| Vegetative                   | Vegetative             | Picking | Germination / crown root initiation | Vegetative  |
| Rabi oilseeds                | Toria                  |         |                                     |             |
| Vegetative                   | Flowering / fruiting   |         |                                     |             |

# **Himachal Pradesh**

| Vegetables (Ladies<br>finger/ Cabbage,<br>Cauliflower)               | Potato   | Barley  | Toria      | Wheat  |
|--|--|---|------------|--|
| Vegetative/ head<br>formation<br>Ladies finger<br>Flowering/Fruiting | Sowing   | Land preparation & sowing Early sown crops – germination / early vegetative | Vegetative | germination / early<br>vegetative / crown<br>root initiation |
| Gram   | Oilseeds                                       | Early sown rapeseed and mustard   |            |  |
| germination / early<br>vegetative                                    | Land preparation & sowing (Toria – vegetative) | Germination / early vegetative  |            |  |

# Jammu & Kashmir

| Vegetable crops | Rice                                     | Pulses     | Brown Sarson,<br>Mustard | Toria                   |
|-----------------|--|------------|--------------------------|-------------------------|
| vegetative      | Harvesting- Jammu div.                   | vegetative | Flowering                | Harvesting (Jammu div.) |
| Wheat           | Barley, Oat                              |            |                          |                         |
| tillering       | Land preparation for sowing (Jammu div.) |            |                          |                         |

# Punjab

| Sugarcane        | Horticultural crop                 | Rabi Oilseeds        | Cotton  | Rabi pulses |
|------------------|------------------------------------|----------------------|---------|-------------|
| Vegetative       | Vegetative                         | Vegetative           | Picking | Vegetative  |
| Autumn sugarcane | Wheat                              | Irrigated toria      |         |             |
| Early vegetative | Crown root initiation / vegetative | Flowering / fruiting |         |             |

# Rajasthan

| Wheat & barley                | Rabi crops(Mustard,<br>Barley, taramira, gram) | Early sown rabi<br>crops | Potato   | Early sown potato            |
|-------------------------------|--|--------------------------|----------|------------------------------|
| Early vegetative / vegetative | Sowing   | vegetative               | Planting | Sprouting / early vegetative |

|  |   | Uttar Pra                  | desh             |                                  |       |   |
|--|---|----------------------------|------------------|----------------------------------|-------|---|
| Sugarcane  | Vegetables  | Rabi                       | pulses           | Rai , mustar                     | d     | Toria   |
| Cane maturity  | Flowering / fruiting / maturity   |                            | ering            | Vegetative / po                  |       | Pod formation /<br>harvesting   |
| Mango  | Wheat   |                            |                  |                                  |       |   |
| Vegetative   | Seedling / early vegetative   |                            |                  |                                  |       |   |
|  | · · · · · · · · · · · · · · · · · · ·   | Uttarakh                   | and              | <u>I</u>                         |       |   |
| Mango/Litchi   | Pea / Toria   | Suga                       | rcane            | Potato                           |       | Wheat   |
| Vegetative   | Maturity  | Mat                        | urity            | Tuber growth                     |       | Crown root initiation / tillering   |
|  |   | Assan                      | n                | I                                |       |   |
| Sugarcane  | Arhar   | Horticultu                 | ıral plants      | Boro rice                        |       | Winter vegetables   |
| Harvesting   | Pod formation / maturity  | Plar                       | nting            | Nursery sowing                   |       | Land preparation & transplanting Early sown – early vegetative / vegetative |
| Mustard, rapeseed, pea lentil etc.   | Potato  | Wh                         | neat             |                                  |       |   |
| flowering / pod<br>formation   | Vegetative / tuber formation  |                            | t initiation /   |                                  |       |   |
|  |   | Arunachal F                |                  | ı                                |       |   |
| WRC Rice   | Ginger  |                            | llet             | Jhum Paddy                       | y     | Potato  |
| Harvesting   | Harvesting  |                            | esting           | Harvesting                       |       | vegetative  |
| Rabi Vegetables  | Wheat / Mustard   |                            | Pea / rabi maize |                                  |       |   |
| Vegetative / harvesting  | Vegetative  | Vege                       | tative           |                                  |       |   |
|  |   | Bihar                      | •                | T                                | 1     |   |
| Vegetables & fruit<br>crops  | Maize fodder  | Ar                         | har              | Early sown <i>Rabi</i><br>pulses |       | Wheat   |
| vegetative   | vegetative  | Vege                       | tative           | Vegetative                       |       | Seedling / early vegetative   |
| Sugarcane  | Rabi oilseeds (rai, linseed)  | Gram                       |                  |                                  |       |   |
| Vegetative   | Vegetative  |                            | ving             |                                  |       |   |
|  |   | Jharkha                    |                  |                                  | 1     |   |
| Pea, gram, potato  |   |                            | brinjai,         |                                  |       | Wheat   |
| vegetative   | Vegetative  |                            |                  | egetative                        | See   | edling / early vegetative   |
|  |   | Sikkin                     | n                | Г                                |       |   |
| Orange   | Vegetables<br>(Cauliflower, Cabbage,<br>Carot, Beat, tomato)                                      | Large Ca                   | ardamom          | Wheat                            |       | Mustard   |
| Harvesting   | Late vegetative / flowering   | Nursery                    | sowing           | Crown root initia                | ation | Late vegetative / flowering   |
|  | -10 011119  | West Bei                   | ngal             | 1                                |       |   |
|  |   | Must                       |                  |                                  |       |   |
| Sugarcane  | Arhar   | Rapeseed<br>len            | _                | Potato                           |       | Sunflower   |
|  |   |                            |                  | Vegetative / tuber formation     |       | 1   |
| Cane development   | Pod development /<br>maturity (Rabi arhar-<br>vegetative)   | Late Veg                   |                  |                                  | ber   | early vegetative /<br>vegetative  |
| Cane development  Boro rice  | maturity (Rabi arhar-<br>vegetative)<br>Wheat   |                            |                  |                                  | ber   |   |
| •  | maturity (Rabi arhar-<br>vegetative)  |                            |                  |                                  | ber   |   |
| Boro rice  | maturity (Rabi arhar-<br>vegetative)  Wheat  Crown root initiation /                              |                            | ering            | formation                        |       |   |
| Boro rice  | maturity (Rabi arhar-<br>vegetative)  Wheat  Crown root initiation /                              | Chattisg                   | ering            |                                  |       |   |
| Boro rice Nursery sowing   | maturity (Rabi arhar-<br>vegetative)  Wheat  Crown root initiation / tillering                    | Chattisg                   | arh              | formation  Tomato, Brinj         | jal,  | vegetative  |
| Boro rice Nursery sowing  Sugarcane Vegetative (autumn – Sprouting / early | maturity (Rabi arhar-<br>vegetative)  Wheat  Crown root initiation / tillering  Rapeseed, mustard | Chattisg To vegetative Poi | arh<br>oria      | Tomato, Brinj Chilli Vegetative  | ial,  | wegetative  Wheat  Land preparation &                                       |

| •   |  | Gujarat  |  | T   |
|---|--|--|--|---|
| Sugarcane   | Kharif Cotton  | Castor   | Mustard  | Wheat   |
| Cane<br>maturity/harvesting   | Boll formation/ boll maturity / picking  | Spike formation / pod formation  | flowering / pod<br>formation                                       | Early vegetative /<br>crown root initiation /<br>tillering      |
|   |  | Maharashtra  | · I  |   |
| Sugarcane Preseasonal<br>(Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha)                                       | Sugarcane (Suru)<br>(Madhya Mahrashtra,<br>Marthwada and<br>Vidarbha)  | Rabi safflower<br>(Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha)   | Rabi Jowar<br>(Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha) | Kharif Tur (Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha) |
| Elongation / cane<br>development  | Active growth / elongation   | Flowering / head formation   | Vegetative / ear head<br>emergence (Pune &<br>Nasik Div.)          | Pod formation / grain<br>filling / grain maturity               |
| Potato (Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha)   | Rabi onion (Madhya<br>Maharashtra,<br>Marathwada)  | Maize (Konkan,<br>Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha)  | Gram (Madhya<br>Maharashtra,<br>Marathwada &<br>Vidarbha)          | Mango   |
| Vegetative  | Early vegetative   | Vegetative   | Branching / flowering / pod formation                              | Flowering   |
| Wheat (North Konkan,<br>Madhya Maharashtra,<br>Marathwada &<br>Vidarbha)  |  |  |  |   |
| early vegetative / crown<br>root initiation / early<br>tillering  |  |  |  |   |
| · · · · · · · · · · · · · · · · · · ·   |  | Madhya Pradesh   | •  |   |
| Sugarcane   | Rabi crops (linseed, lentil, gram, mustard)  | Wheat  |  |   |
| Grand growth  | Vegetative   | vegetative   |  |   |
|   |  | Orissa   |  |   |
| Kharif vegetables   | Sugarcane  | Dalua rice   | Arhar  | Mung and urd  |
| Vegetative / fruiting   | Cane formation / maturity  | Nursery sowing   | Pod formation /<br>maturity  | Vegetative / flowering  |
|   |  |  |  |   |
| Oilseeds  |  |  |  |   |
| Oilseeds Early vegetative   |  | Andhus Duodesh   |  |   |
|   |  | Andhra Pradesh   |  |   |
| Early vegetative  Kharif Rice   | Kharif Cotton  | Rabi red gram /<br>chillies  |  |   |
| Early vegetative  | Kharif Cotton Picking  | Rabi red gram / chillies Vegetative  |  |   |
| Early vegetative  Kharif Rice   |  | Rabi red gram /<br>chillies  |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane  | Picking  | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott  |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  | Annual sugarcane  Sprouting / early  | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott on/ Sunflower  |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  | Annual sugarcane  Sprouting / early  | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott on/ Sunflower Flowering  |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  Grand growth                                    | Annual sugarcane  Sprouting / early vegetative / tillering   | Rabi red gram / chillies Vegetative  Karnataka  Rabi Jowar/Maize/Cott on/ Sunflower  Flowering  Kerala  Pepper harvesting                                |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  Grand growth                                    | Annual sugarcane  Sprouting / early vegetative / tillering  Mundakkan Rice   | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott on/ Sunflower Flowering Kerala Pepper  |  |   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  Grand growth  Rubber New planting  Rice (Samba) | Annual sugarcane  Sprouting / early vegetative / tillering  Mundakkan Rice  Harvesting  Sugarcane (Early, Mid season)                    | Rabi red gram / chillies Vegetative  Karnataka  Rabi Jowar/Maize/Cott on/ Sunflower  Flowering  Kerala  Pepper harvesting                                | Groundnut/Black<br>gram/Green<br>gram/Red gram                     | Early sown<br>Groundnut/Black<br>gram/Green<br>gram/Red gram    |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  Grand growth  Rubber New planting               | Annual sugarcane  Sprouting / early vegetative / tillering  Mundakkan Rice Harvesting  Sugarcane (Early, Mid season)  Cane development / | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott on/ Sunflower Flowering Kerala Pepper harvesting Tamil Nadu Special season           | gram/Green   | Groundnut/Black<br>gram/Green                                   |
| Early vegetative  Kharif Rice  Harvesting  Sugarcane (Ratoon crop)  Grand growth  Rubber New planting  Rice (Samba) | Annual sugarcane  Sprouting / early vegetative / tillering  Mundakkan Rice  Harvesting  Sugarcane (Early, Mid season)                    | Rabi red gram / chillies Vegetative Karnataka Rabi Jowar/Maize/Cott on/ Sunflower Flowering Kerala Pepper harvesting Tamil Nadu Special season sugarcane | gram/Green<br>gram/Red gram  | Groundnut/Black<br>gram/Green<br>gram/Red gram                  |