

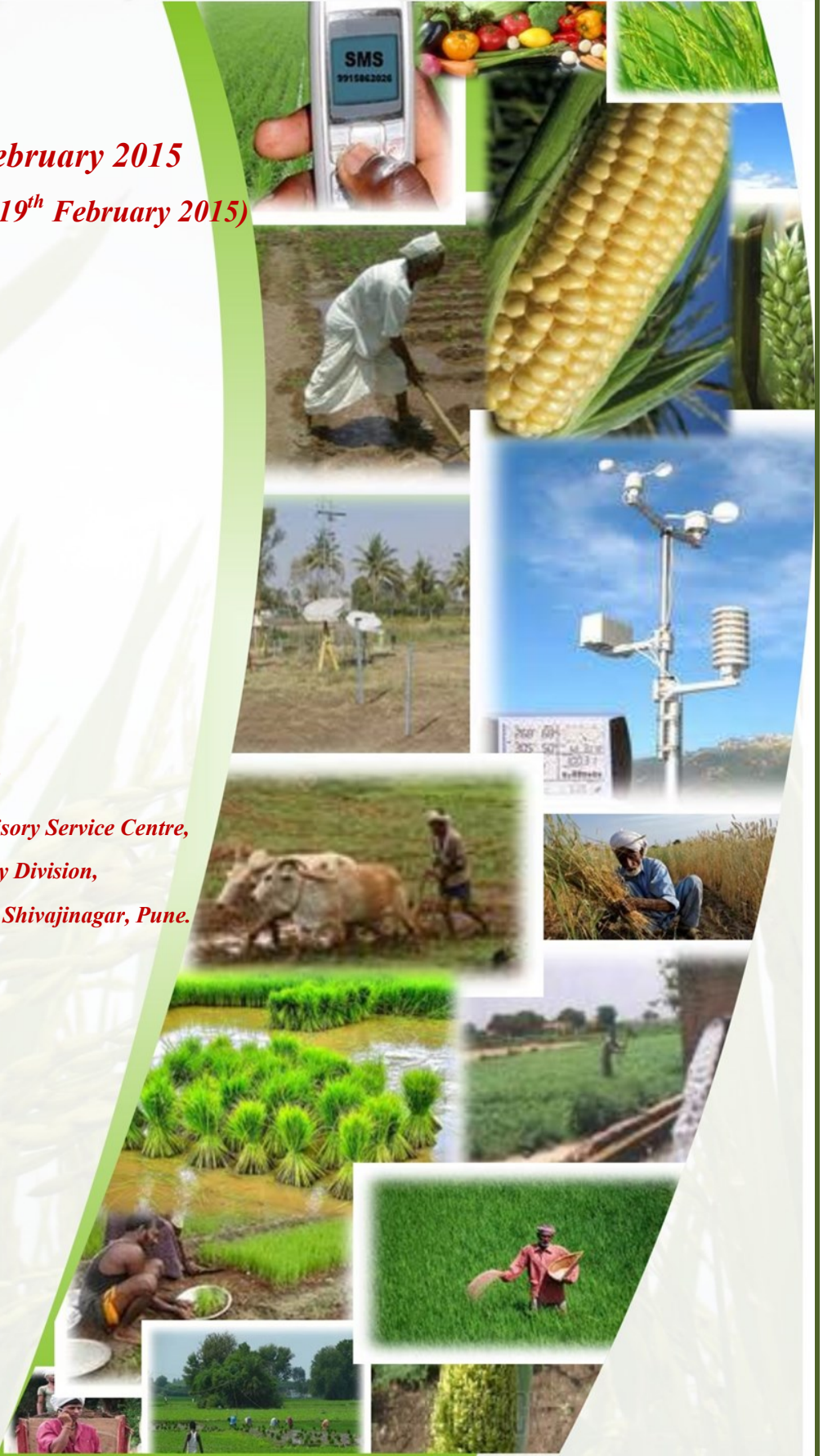
National Agromet Advisory Service Bulletin

Monday 16th February 2015
(For the period 16th to 19th February 2015)



Issued by

**National Agrometeorological Advisory Service Centre,
Agricultural Meteorology Division,
India Meteorological Department, Shivajinagar, Pune.**



Realised Weather on 16th February 2015

- **Significant weather observations:** **Thunderstorm** has occurred at isolated places over Punjab and Gangetic West Bengal during past 24 hours.
- **Rainfall:** (From 0830 hours IST of yesterday to 0830 hours IST of today): Rain/snow has occurred at most places over Jammu & Kashmir and Himachal Pradesh. Rain/thundershower has occurred at a few places over Punjab and Gangetic West Bengal; at isolated places over Haryana, Bihar, Meghalaya, Nagaland and Tripura. Weather remained dry over the country. The amounts of rainfall (in cm) recorded at 0830 hours IST of today are: Krishnanagar 2; Gulmarg, Srinagar, Pahalgam, Kokarnag, Banihal, Batote, Katra, Badarwah, Manali, Panagarh and Canning each.
- **Temperature: Minimum temperatures** are below normal by 2-4°C at many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura; at a few places over Sub-Himalayan West Bengal & Sikkim, Vidarbha, Chhattisgarh, Telangana and Tamilnadu; at isolated places over Konkan and Interior Karnataka. They are above normal by 2-6°C at most places over Jammu & Kashmir, Uttarakhand, Punjab, Haryana & Delhi; at many places over Himachal Pradesh, Rajasthan, Uttar Pradesh, Gujarat and West Madhya Pradesh; at isolated places over East Madhya Pradesh, Bihar, Gangetic West Bengal, Coastal Odisha, Coastal Andhra Pradesh and Madhya Maharashtra and near normal over rest of the country. The lowest minimum temperature of 9.5°C has been recorded at Betul (Madhya Pradesh) in plains of the country.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 19th February, 2015).

- Rain/snow would occur at many places over Jammu & Kashmir during next 24 hours and at most places thereafter.
- Rain/snow would occur at a few places over Himachal Pradesh during next 24 hours and at many places thereafter.
- Rain/snow would occur at isolated places over Uttarakhand during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Punjab during next 24 hours and at a few places thereafter.
- Rain/thundershowers would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya, West Uttar Pradesh, Haryana & Delhi and West Rajasthan during the period.
- Rain/thundershowers would occur at isolated places over Nagaland, Manipur, Mizoram, Tripura, Sub-Himalayan West Bengal & Sikkim during next 24 hours; dry weather would prevail on 17th and rain/thundershowers would occur at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Odisha and Kerala during next 24 hours; over Gangetic West Bengal and Lakshadweep during next 48 hours and dry weather would prevail thereafter.
- Dry weather would prevail over East Rajasthan and Andaman & Nicobar Islands during next 24 hours and rain/thundershowers would occur at isolated places thereafter.
- Dry weather would prevail over rest parts of the country during the period.
- Maximum temperatures are likely to remain above normal by 2-4°C at many places over northwest India during next 24 hours. Minimum temperatures would rise by 2-3°C over northwest India and likely to remain above normal by 2-3°C at many places over central and west India during next 2-3 days.

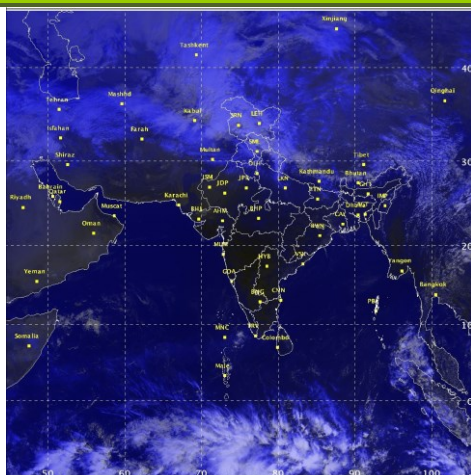
Weather Warning during next 3 days

- **16 February (Day 1):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir and Himachal Pradesh.
- **17 February (Day 2):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir and Himachal Pradesh.
- **18 February (Day 3):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir and Himachal Pradesh.

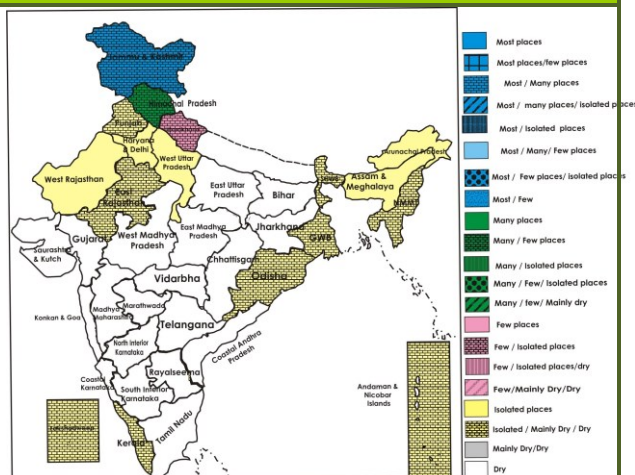
Weather Outlook for subsequent 4 days from 19th to 23rd February, 2015

- Fairly widespread precipitation with isolated heavy to very heavy falls would occur over western Himalayan region. Rain/thundershower would also occur at a few places over adjoining plains of northwest India.
- Rain/thundershowers would occur at a few places over northeastern states and at isolated places over Andaman & Nicobar Islands.

Satellite image dated, 16.02.2015, 0600 UTC



Weather Forecast Map (Valid upto 0830 hours of 19th February, 2015)



Salient Advisory

- As rain/snow would occur at many places over **Himachal Pradesh** and at many/most places over **Jammu & Kashmir** along with heavy rain/snow at isolated places during the period, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.

Detailed Zonewise Agromet Advisories

SOUTH INDIA [TAMIL NADU, TELANGANA, ANDHRA PRADESH, KARNATAKA, KERALA]



Sorghum



Sugarcane



Chilli



Rice Transplanting

- **Realised Weather:** Weather remained dry over the region. Minimum temperatures are below normal by 2-4°C at a few places over Telangana and Tamilnadu; at isolated places over Interior Karnataka. They are above normal by 2-6°C at isolated places over Coastal Andhra Pradesh and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Kerala during next 24 hours and dry weather would prevail thereafter. Dry weather would prevail over rest parts of the region during the period.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Andhra Pradesh:**
 - Complete harvesting of red gram and Bengal gram in Anantapur district of Scarce Rainfall Zone.
 - As dry weather is prevailing, apply light and frequent irrigation to mango crop to get synchronised flowering in the Southern Zone.
 - Prevailing dry weather and increase in temperature is congenial for the incidence of smut in sugar-cane in the North Coastal Zone. Spray Propiconazole @ 1 ml/litre of water immediately after rationing to manage the incidence.
 - Due to prevailing dry weather and low temperature conditions, tikka leaf spot incidence was noticed in groundnut in few parts of Anantapur district in the Scarce Rainfall Zone. For control, undertake spraying of Mancozeb @ 400g + Carbendazim @ 200g or Hexaconazole @ 400 ml /litre of water
 - High temperature during day time is congenial for incidence of sucking pests in cotton in the Krishna Godavari Zone. Undertake stem application of Monochrotophos based on the intensity of pest attack as control measure.

- Prevailing dry weather is congenial for incidence of leaf folder in rice in the Southern Zone, spray Cartahydrochloride granules @ 8 kilo/acre, if the crop is in early stages and Chlorpyrifos or Quinalphos @ 2.5 ml/litre of water or Cartahydrochloride 2 g or Flubendamide 0.2 ml/litre of water on 20-30 days crop to manage the incidence.
- **Telangana:**
 - Prevailing dry weather is congenial for incidence of stem borer in 20-25 days old transplanted rice in the Southern Telangana Zone. To control, spray Cartap Hydrochloride @ 2 g or Acephate @ 1.5 g per litre of water.
 - High incidence of shoot and fruit borer is observed in brinjal in the Northern Telangana Zone due to rise in temperature. Spray Malathion @ 2 ml or Rynaxpir @ 0.3 ml per litre of water to manage the incidence.
- **Karnataka:**
 - Complete harvesting of pigeon pea in the North East Transition Zone.
 - As dry weather is prevailing, apply irrigation to wheat and continue planting of sugarcane in the North Transition Zone and North East Transition Zone.
 - Undertake land preparation for the planting of sugarcane in the Southern Dry Zone.
 - As dry weather is prevailing, continue sowing of maize with assured irrigation in the Southern Transition Zone.
 - Irrigate areca nut, coconut and black pepper gardens either by furrow or drip irrigation in the Hill Zone.
- **Kerala:**
 - Complete land preparation for *puncha* rice crop in some pockets and summer vegetables in the Southern Zone.
 - In the Problem Area Zone, continue harvesting of pepper, continue mulching with crop residue and dried leaves in coconut, banana and nutmeg fields to reduce evapotranspiration and provide irrigation to nutmeg according to increase in temperature.
 - Prevailing dry and humid weather is congenial for incidence of powdery mildew on rubber plant in the Problem Area Zone. Spray Sulfex @ 2 g/litre of water to manage the incidence, if noticed.
 - There is chance of stem bleeding in coconut due to prevailing dry weather in the Central Zone. Chisel out the affected tissues completely, paint the wound with Tridemorph 5% and apply Tridemorph @ 25 ml in 25 litres of water as soil drenching in four months.
 - Warm weather and high humidity is congenial for incidences of jassids and aphids in vegetables in the Southern Zone. Apply Quinalphos @ 0.05 % as foliar spray against jassids and spray Dimethoate @ 0.05 % against aphids.
- **Tamil Nadu:**
 - Complete harvesting of matured *samba* rice in the Cauvery Delta Zone.
 - Continue sowing of summer irrigated sesame and provide irrigation to all irrigated crops since there is increase in temperature and low humidity in the Western Zone.
 - Undertake cultivation of cotton in the North Western Zone and continue sowing of vegetables crop under irrigated condition in the Southern Zone.
 - Incidence of leaf eating caterpillar damage is noticed in rice fallow black gram due to prevailing dry weather in the Cauvery Delta Zone. To control this, spray Chlorpyrifos @ 500 ml / acre.
 - Suitable varieties are given in Annexure I.
- **Animal Husbandry**
 - Undertake preventive measures to protect animals from Anthrax disease and vaccinate sheep and goat against pneumonia & blue tongue disease in the Scarce Rainfall Zone of Andhra Pradesh.
 - Undertake de-worming of sheep and goats to control endo-parasites in the Cauvery Delta Zone and vaccinate animals against the foot and mouth disease in the Western Zone of Tamil Nadu.

NORTHEAST INDIA [ARUNACHAL PRADESH, NMM&T, ASSAM, MEGHALAYA]



Rice transplanting



Mustard



Potato



Cabbage

- **Realised Weather:** Rain/thundershower has occurred at isolated places over Meghalaya, Nagaland and Tripura. Weather remained dry over rest of the region. Minimum temperatures are below normal by 2-4°C at many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Arunachal Pradesh, Assam & Meghalaya during the period. Rain/thundershowers would occur at isolated places over Nagaland, Manipur,

Mizoram and Tripura during next 24 hours; dry weather would prevail on 17th and rain/thundershowers would occur at isolated places thereafter.

- **Weather Warning:** Nil
- **Weather Outlook:** Rain/thundershowers would occur at a few places over the region.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - As dry weather prevailed over the States of the region during last week and no significant rain is likely to occur during the period, farmers are advised to apply irrigation to the standing crops.
 - In Assam, maintain 5cm of standing water in the field of *boro* rice.
 - In North Bank Plain Zone of Assam, continue land preparation for direct seeded *ahu* rice, summer green gram & black gram and sowing of *okra*.
 - In Hill Zone of Assam, continue nursery bed preparation for early *ahu* rice and sowing of cucurbits and *okra*.
 - In Lower Bramhaputra Valley Zone of Assam, continue land preparation for planting of sugarcane in upland area. Apply irrigation to *rabi* maize, lentil, rapeseed and mustard.
 - In Central Bramhaputra Valley Zone of Assam, continue land preparation and sowing of summer green gram, black gram, summer vegetables, capsularis jute and pointed gourd.
 - In Barak Valley Zone, Central Bramhaputra Valley Zone and Upper Bramhaputra Valley Zone of Assam, continue harvesting of rape seed/mustard when 75-80% siliquae turn yellow in colour.
 - In Hill Zone of Assam, due to humid weather, late blight and leaf eating caterpillars may be found in tomato and cole crops. Apply Ridomil MZ-72 @ 2 g/ litre of water and Indofil M-45 @ 2.5 g / litre at 15 days interval to protect against late blight and spray Malathion 50 EC @ 1.5 ml/litre against caterpillars.
 - In Central Bramhaputra Valley Zone of Assam, humid weather is congenial for blast disease attack in wheat, spray Bavistin @ 2 g per litre of water.
 - In Meghalaya, due to humid weather, there is chance of attack of blast /brown spot disease in *boro* rice and powdery mildew and rust in pea. Spray Carbendazim @ 1g/litre of water against blast/brown spot. Also spray Wettable Sulphur @ 2 g/litre or Dinocap @ 1 ml/litre of water or Dust Sulphur @ 25 kg/ha against powdery mildew and spray Dithane M-45 (0.2 %) against rust in pea.
 - In North Bank Plain Zone of Assam, due to foggy weather there is chance of blast in *boro* rice, spray Mancozeb 0.2% @ 2 g/litre or Carbendazim 0.1% @ 1 g/litre of water to control the attack. Also minimum temperature favours for occurrence of potato tuber moth disease in potato, spray Chloropyriphos 20 EC @ 1 ml/litre.
 - **Manipur, Mizoram, Nagaland and Tripura:**
 - In Manipur, undertake nursery bed preparation of pre-*kharif* rice.
 - In Nagaland, apply light irrigation in pea. Apply mulching in vegetables and cole crops. Continue land preparation and sowing for summer moong /urad.
 - In Mild Tropical Plain Zone of Tripura, apply light irrigation on every alternate day in cole crops, banana, mustard, maize and lentil. Undertake mulching after irrigation to conserve moisture. Continue transplanting of summer brinjal and tomato. Maintain 2 to 3cm standing water in the field of *boro* rice at tillering stage.
 - In Tripura, due to humid weather, there is chance of attack of aphids in mustard. Spray Monocrotophos @ 2ml per litre of water to manage the attack.
 - Suitable varieties are given in Annexure I.
- **Animal Husbandry**
 - In Barak Valley Zone of Assam, prevailing cold weather is favourable for attack of pneumonia in newly born chicks. Special care must be taken against pneumonia.

EAST INDIA [JHARKHAND, BIHAR, ODISHA, WEST BENGAL & SIKKIM, ANDAMAN & NICOBAR ISLANDS]



Sugarcane



Wheat



Rice transplanting



Onion

- **Realised Weather:** Thunderstorm has occurred at isolated places over Gangetic West Bengal during past 24 hours. Rain/thundershower has occurred at a few places over Gangetic West Bengal; at isolated places over Bihar. Weather remained dry over rest of the region. Minimum temperatures are below normal by 2-4°C at a few places over Sub-

Himalayan West Bengal & Sikkim. They are above normal by 2-6°C at isolated places over Bihar, Gangetic West Bengal and Coastal Odisha and near normal over rest of the region.

- **Weather Forecast:** Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during next 24 hours; dry weather would prevail on 17th and rain/thundershowers would occur at isolated places thereafter. Rain/thundershowers would occur at isolated places over Odisha during next 24 hours; over Gangetic West Bengal during next 48 hours and dry weather would prevail thereafter. Dry weather would prevail over Andaman & Nicobar Islands during next 24 hours and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over rest parts of the region during the period.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at isolated places over Andaman & Nicobar Islands.
- **Advisories:**
 - **West Bengal:**
 - In Coastal Saline Zone, Old Alluvial and Terai Zone, continue transplanting of *boro* rice.
 - In New Alluvial Zone of West Bengal, as dry weather is prevailing apply irrigation to wheat and *boro* rice. Keep 3-5 cm stagnant water in the transplanted *boro* rice field.
 - In Laterite and Red Soil Zone of West Bengal, as dry weather is prevailing, apply irrigation to wheat and vegetables. Continue harvesting of matured mustard.
 - Due to cold weather condition, there are chances of attack of aphids and semi-lopper in vegetables and mustard during its fruiting stage in Hill Zone. To control semi lopper, apply Indoxacarb @ 1.5ml/litre of water with sticker, and Imidacloprid 17.8 SL @ 3 ml /10 litre of water or Quinalphos 25 EC @ 2 ml/ litre of water to control aphid infestation.
 - In Old Alluvial Zone and Terai Zone, due to low temperature and foggy weather, there is chance of attack of late blight in potato. For control, spray Mancozeb @ 2 g /litre of water and Blitox @ 4 g/litre of water alternately at 7-10 days interval by completely wetting the leaves.
 - In New Alluvial Zone, Laterite and Red soil Zone of West Bengal, due to partly cloudy weather, there are chances of late blight in potato and leaf blight in chilli. To control late blight, spray Blitox or Mancozeb @ 2.5 g / litre of water at an interval of 5-7 days, thrice or Cymoxanil 8% + Mancozeb 64% @ 3 g per litre of water and to control leaf blight spray Blitox @ 2.5 to 3 g /litre of water at an interval of 20 days.
 - In Laterite and Red Soil Zone of West Bengal, due to low temperature aphids attack may be found in wheat during its heading stage. Spray Dimethoate (ROGOR) 30 EC @ 1.75 ml/litre of water to control the attack. In this weather condition, rice blast was observed in the field. Spray Carbendazim 50EC @ 0.1% to control rice blast disease.
 - **Andaman and Nicobar Islands:**
 - In North, Middle and South Andaman, as mainly dry weather is prevailing, apply irrigation to vegetables and undertake transplanting of the seedling of 30 days old brinjal and chilli.
 - In South, North and Middle Andaman districts, due to cloudy weather, there may be possibility of attack of thrips, leaf hopper and other sucking pests in vegetables. Spray Imidacloprid @ 2 ml /litre and Acephate 2 g/litre alternatively once in two weeks.
 - **Odisha:**
 - In Western Undulating Zone of Odisha, as dry weather is prevailing, apply irrigation to vegetables and onion. Continue harvesting of matured cotton, sugarcane, arhar and niger. Complete nursery sowing for summer rice. Continue field preparation for planting of sugarcane.
 - In East and South Eastern Coastal Plain Zone, continue nursery sowing of rice and ragi, sowing of sunflower and groundnut and planting of sugarcane.
 - In North Eastern Plateau Zone of Odisha, as dry weather is prevailing, apply irrigation in rice nursery. Continue land preparation for transplanting of rice.
 - In North Eastern Coastal Plain Zone of Odisha, as dry weather is prevailing, apply irrigation to rapeseed and mustard which are at flowering stage.
 - In North Eastern Coastal Plain Zone of Odisha, rise in temperature will favour the incidences of stem borer population in rice nurseries. To control it, spray Traizophos or Chloropyriphos @ 2 ml/litre of water.
 - In North Eastern Plateau Zone of Odisha, due to cool weather, there is chance of powdery mildew in pulses, spray wettable Sulphur @ 1 kg per acre.
 - In East and South Eastern Coastal Plain Zone of Odisha, cloudy weather may favour the infestation of aphids in potato. To control spray Dimethoate @ 400 ml or Imidachloprid @ 50 ml in 200 litres water per acre.
 - In East and South Eastern Coastal Plain Zone of Odisha, cloudy and cold weather is favourable for the infestation of powdery mildew in mustard and pulses. Spray Copper Oxychloride @ 1 kg or 800 g Dethane-M 45/acre in 200 litres water to control leaf blight disease.
 - **Bihar:**
 - In South Bihar Alluvial Zone, as dry weather is prevailing, apply irrigation to onion. Undertake harvesting of matured tobacco. Continue harvesting of early sown potato, stop irrigation 15 days before harvesting. Undertake planting of sweet potato and arvi crop.
 - In North West Alluvial Plain Zone of Bihar, as dry weather is prevailing, apply irrigation to garlic and onion.

Undertake sowing of summer vegetables. Continue harvesting of early sown matured mustard and potato, stop irrigation 15 days before harvesting. Continue sowing of okra and planting of sweet potato.

- In North East Alluvial Zone of Bihar, continue planting of spring sugarcane. Complete transplanting of *boro* rice and nursery sowing of summer rice. Continue harvesting of early sown potato. Continue sowing of cucumber, bottle gourd, muskmelon, watermelon, bitter gourd, ridge gourd and ladies finger. Continue transplanting of onion.
- In South Bihar Alluvial Zone, cool and humid weather is favourable for the attack of aphids in mustard/toria, spray Cartap Hydrochloride or Metasystox or rogor @ 1.5 ml/litre of water.
- **Jharkhand:**
 - In Western Plateau Zone, continue sowing of cucurbitaceous vegetables like sponge gourd, bottle gourd, pumpkin, watermelon, muskmelon etc. Farmers, who have already raised the seedlings in polythene bag, may transplant the seedlings in the main field @ 2-3 seedlings per pit. Apply light irrigation after transplanting of seedlings. Continue transplanting of 21 days old seedling of rice. Continue harvesting of mustard. As dry weather is prevailing, apply irrigation to wheat which at heading stage.
 - In South Eastern Plateau Zone of Jharkhand, apply irrigation in wheat and mustard. Continue nursery sowing of summer rice. Continue nursery sowing of vegetables like bottle gourd, khira, kakri, sponge gourd, ridge gourd, bitter gourd, okra, brinjal and Shimla mirch and continue transplanting of matured seedlings. Undertake sowing of mung after harvesting of potato.
 - In Central & North Eastern Plateau Zone of Jharkhand, continue nursery sowing of summer rice and undertake transplanting of 12-15 days old rice seedlings. Continue transplanting of onion and harvesting of potato and pigeon pea. If there is sufficient moisture for irrigation; undertake cultivation of high yielding variety of summer maize.
 - Suitable varieties are given in Annexure I.
- **Animal Husbandry**
 - In Central & North Eastern Plateau Zone of Jharkhand, due to cold weather, there are chances of PPR disease in goat and sheep. Farmers are advised to vaccinate their animal with PPR vaccine @ 1ml S/C. Young animals should be vaccinated after 4 month old and repeated after 3 years.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Wheat



Mustard



Onion

- **Realised Weather:** Weather remained dry over the region. Minimum temperatures are below normal by 2-4°C at a few places over Chhattisgarh. They are above normal by 2-6°C at many places over West Madhya Pradesh; at isolated places over East Madhya Pradesh. The lowest minimum temperature of 9.5°C has been recorded at Betul (Madhya Pradesh) in plains of the country.
- **Weather Forecast:** Dry weather would prevail over the region during the period. Minimum temperatures likely to remain above normal by 2-3°C at many places over central India during next 2-3 days.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Madhya Pradesh:**
 - Apply irrigation in wheat at flowering stage in Madhya Pradesh.
 - Continue transplanting of seedlings of summer vegetables like tomato, brinjal, chilli, okra, cabbage and cauliflower on the prepared beds and sowing of cucurbitaceous crops in Malwa Plateau Zone.
 - Continue picking up of matured vegetables like pea, tomato, brinjal, chilli etc. in Vindya Plateau Zone.
 - Continue harvesting of matured potato and sowing of summer okra and cowpea in Kymore Plateau and Satpura Hill Zone.
 - Continue land preparation for sowing of summer moong in Nimar Valley zone.
 - Continue transplanting of tomato, chilli, brinjal and cucurbitaceous crops in the field in Bundelkhand Zone.
 - Due to humid weather, there are chances of attack of sucking pests in vegetables in Jhabua Hill Zone; spray Thiomithaxam @ 0.35 g per litre of water.
 - Due to partly cloudy weather, there are chances of incidence of aphids in coriander, cabbage and beans in Bundelkhand Zone, spray of Methyl Dematon 25 E.C. @ 2.0 ml. per litre of water.

▪ **Chhattisgarh:**

- Continue nursery sowing of cucurbitaceous crops and sowing of groundnut and sesame in Bastar Plateau Zone.
- Continue transplanting of summer rice. Continue sowing of cucurbitaceous crops, leafy vegetable, cowpea and okra in North Hill Zone. Undertake harvesting of matured mustard and potato.
- As mainly dry weather is prevailing, apply irrigation in wheat at flowering stage in Plain Zone and North Hill Zone of Chhattisgarh.
- Undertake intercultural operations, followed by irrigation in sugarcane crop at knee height stage in Chhattisgarh Plain Zone.
- Due to humid weather, there are chances of stem borer disease in maize in Bastar Plateau Zone, spray Carbofuran 3G @ 20 kg per hectare.

• **Animal Husbandry**

- Provide green fodder along with mineral mixture and fresh water for milch animals in Madhya Pradesh.

NORTH INDIA [JAMMU & KASHMIR, HIMACHAL PRADESH, UTTARAKHAND, PUNJAB, HARYANA, DELHI, UTTAR PRADESH & RAJASTHAN]



Wheat

Sugarcane

Mustard

Cabbage

- **Realised Weather:** Thunderstorm has occurred at isolated places over Punjab during past 24 hours. Rain/snow has occurred at most places over Jammu & Kashmir and Himachal Pradesh. Rain/thundershower has occurred at a few places over Punjab; at isolated places over Haryana. Weather remained dry over rest of the region. Minimum temperatures above normal by 2-6°C at most places over Jammu & Kashmir, Uttarakhand, Punjab, Haryana & Delhi; at many places over Himachal Pradesh, Rajasthan and Uttar Pradesh and near normal over rest of the region.
- **Weather Forecast:** Rain/snow would occur at many places over Jammu & Kashmir during next 24 hours and at most places thereafter. Rain/snow would occur at a few places over Himachal Pradesh during next 24 hours and at many places thereafter. Rain/snow would occur at isolated places over Uttarakhand during next 24 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over Punjab during next 24 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over West Uttar Pradesh, Haryana & Delhi and West Rajasthan during the period. Dry weather would prevail over East Rajasthan during next 24 hours and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over rest parts of the region during the period.

Maximum temperatures are likely to remain above normal by 2-4°C at many places over northwest India during next 24 hours. Minimum temperatures would rise by 2-3°C over northwest India during next 2-3 days.

- **Weather Warning:** Heavy rain/snow would occur at isolated places over Jammu & Kashmir and Himachal Pradesh during the period.
- **Weather Outlook:** Fairly widespread precipitation with isolated heavy to very heavy falls would occur over western Himalayan region. Rain/thundershower would also occur at a few places over adjoining plains of northwest India.

• **Advisories:**

- As rain/snow would occur at many places over Himachal Pradesh and at many/most places over Jammu & Kashmir along with heavy rain/snow at isolated places during the period, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Also arrange for adequate drainage to avoid water stagnation in the crop fields.

▪ **Jammu & Kashmir:**

- In Sub Tropical and Intermediate Zone of Jammu & Kashmir, continue field preparation for nursery sowing of tomato, brinjal and chilli, sowing of beans and cucumber after current spells of heavy rain.
- In Sub Tropical and Intermediate Zone of Jammu & Kashmir, due to temperature variation there may be incidence of collar rot, wilt and root rot in chickpea crop. For control of rot rogue out the severely infected plants and drench affected areas with Thiram @ 0.2 % or Carbendazim @ 0.1 % after current spells of rain.

▪ **Uttarakhand:**

- Undertake planting of sugarcane in Bhabar and Tarai Zone of Uttarakhand, after harvesting of potato, toria etc. and also undertake transplanting of onion seedlings.
- In Bhabar and Tarai Zone of Uttarakhand, continue sowing of potato at high hills with irrigation facilities. Also continue nursery sowing of tomato and capsicum.

- In Hill Zone of Uttarakhand, continue nursery sowing of tomato, brinjal and capsicum.
- Due to humid weather with low temperature, there is attack of leaf hopper in brinjal, and tomato in Sub humid Sub Tropic Zone of Uttarakhand. To control, apply Dichlorvos @ 1 ml/litre of water on a non rainy day.
- **Rajasthan:**
- Continue field preparation for sowing of summer groundnut in Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan.
- In Arid Western Plain Zone of Rajasthan, due to variation in temperature, there is chance of heliothis infestation in gram, to control, spray Quinalphos 25 EC @ 1200 ml/ha or Indoxicarb @200 ml/ha along with water at the time of flowering and if required repeat it after 15 days interval.
- Due to increase in day temperature, there is chance of incidence of white rust in mustard in Flood Prone Eastern Plain Zone of Rajasthan. For control, spray Mancozeb or Ridomil MZ 72 WP @ 2.0 Kg in 800 litre of water/ha
- Due to increase in day temperature aphids may become hyper active in mustard crop in Flood Prone Eastern Plain Zone of Rajasthan. Regularly monitor the field boundaries for aphids and destroy the infested branches/twigs.
- Due to change in temperature in Semi Arid Eastern Plain Zone of Rajasthan, mustard crop may be affected with white rust & stem rot. To control white rust spray Blitox 50 @ 3 g or Mancozeb @ 2 g per litre of water and to control stem rot spray fungicide Bavistin @ 1.0 g per litre water. Also *heliothis* infestation in gram, spray Quinalphos 25 EC @ 1200 ml/ha or Indoxacarb @ 200 ml/ha along with water at the time of flowering.
- **Himachal Pradesh:**
- Continue sowing of radish on flat beds or by making ridges at a distance of 30x5 cm in Sub-Montane and Low Hills Sub-Humid Tropical Zone after current spells of heavy rain.
- Undertake sowing of Chinese cabbage, cabbage and coriander in polyhouse in High Hill Temperate Dry Zone utilizing realized rainfall.
- Apply second dose of nitrogen in wheat and vegetables and last dose in cabbage and cauliflower in Sub-Montane and Low Hills Sub-Humid Tropical Zone after current spells of rain.
- Under prevailing low temperature and cloudy weather condition, yellow rust are appearing in the wheat crop in the form of yellow powder/stripes on the leaves in Sub-Montane and Low Hills Sub-Humid Tropical Zone. To control, spray the tilt (Propiconazole) 25 EC/Folicure (Tebuconazole) 25 EC/Bayletan 25 WP @ 0.1% i.e. 30 ml or 30 g per 30 litres of water per kanal after current spells of rain and repeat the spray after 15 days interval. There is chance of attack of aphids in mustard and Gobi sarson, spray Cypermethrin or Metasystx 750 ml in 750 litres of water/ ha after current spells of rain. . For the control of aphids and leaf eating caterpillars in cauliflower, cabbage, spray Malathion 50 EC @ 1 ml/litre of water and for control of black rot in cauliflower, spray Streptomycin @ 0.1 ml/ litre of water after current spells of rain. Downy mildew is also expected in cruciferous vegetables, for control spray Redomil M-Z @ 25 g per litre of water at 15 days interval after current spells of rain.
- Under low temperature condition, there are chances of incidence of collar rot in apple in Mild Hills Sub Humid Zone. For control, spray Ridomil @ 75 g per 20 litres of water or Bavistin @ 15-20 g/20 litres of water or Dithane-M-45 @ 90-100 g/15 litres of water after current spells of rain.
- **Punjab, Haryana and Delhi:**
- Continue planting of sugarcane in Western Plain Zone of Punjab.
- In Western Semi-Arid Zone of Delhi, undertake nursery sowing of ladies finger, cucurbitaceous crops and vegetables like chilli, tomato and brinjal and transplanting of young seedlings of tomato, chilli and cole crops.
- Due to high humidity in Eastern Zone of Haryana, there are chances of incidence of white rust in late sown mustard crop, late blight in potato and tomato and there may be attack of thrips on timely sown onion crop. Undertake constant monitoring to control the pest and diseases.
- Due to high humidity, late blight infestation may occur in potato crop in Undulating Plain Zone of Punjab. To control, spray Indofil M45 @ 500-700 per acre on a non rainy day.
- Cloudy weather condition is favourable for attach of yellow rust in wheat crop in Central Plain Zone of Punjab. To control spray the crop with tilt 25 EC/Shine 25 EC/Bumper 25 EC or Folicur 25 EC @ 200 ml or Bayleton 25 WP @ 200 g in 200 litres of water/acre on a non rainy day.
- Under prevailing cloudy weather condition, there is chance of incidence of yellow rust in wheat in Undulating Plain Zone of Punjab and Western Semi-Arid Zone of Delhi. To control, spray Tilt (Propiconazole) 25 EC/folicure (Tebuconazole) 25 EC/Bayletan 25 WP @ 0.1% i.e. 30 ml or 30 g per 30 litres of water per kanal on a non rainy day and repeat the spray after 15 days interval.
- Due to foggy weather, constant monitoring of Pink stem borer in wheat crop. Incidence observed in South-Western region of Punjab, if the attack reached above ETL then spray Quinalphos 25EC @ 800ml/acre on a non rainy day.
- **Uttar Pradesh:**
- Continue sowing of ladies finger, lobia and continue nursery sowing of tomato and chilli, sowing of summer maize in Central plain Zone.
- Undertake planting of short and medium duration varieties of sugarcane in Central Plain Zone. Undertake sowing of urad, moong, ladies finger and lobia as intercropping with sugarcane.

- Undertake first top dressing of 40 kg nitrogen (88kg urea)/ha in tomato, 25-30 days after transplanting in Central Plain Zone. Apply second irrigation in French bean at fruiting stage.
- Undertake top dressing of remaining half dose of nitrogen in wheat at tillering and second at panicle initiation stage @ 30 kg/ha in Central Plain zone utilizing available soil moisture.
- Continue land preparation for planting summer sugarcane, sowing of urad and moong in Eastern Plain Zone. Complete sowing of ladies finger, gourd, toria and cucurbitious crops and transplanting of tomato.
- Complete sowing tomato, chilli and brinjal in Bundelkhand Zone. Continue planting of onion and undertake transplanting of cruciferous crops.
- Under humid weather condition, there is chance of blight disease in gram and potato in Central Plain Zone. For control of blight in gram, spray Zinc Manganese Carbamate @ 2 kg in 800 litres of water/ha at 10 days interval and for control of blight in potato, spray Mancozeb @ 2 g or Blitox per litre of water.
- Under humid weather and favourable temperature (24⁰C) condition, there is also chance of attack of aphids in mustard in Central Plain Zone. For control of aphids, spray Malathion 50 EC @ 2 ml or Dimethoate 30 EC or Chloropyriphos @ 0.5ml or Imidachloprid @ 1.5 ml per litre of water/ha. For control of Alternaria blight in mustard, spray Blitox @ 2.5 kg per hectare.
- Under low night temperature condition, there is chance of powdery mildew in peas in Bundelkhand Zone. For control, apply soluble Sulphur 80EC @2 kg or Tridemorph 80 EC @500ml in 500-600 litres of water per ha. Due to rise in maximum temperature, there is also chance of attack of fruit borer in arhar and fruit borer and semi-looper in gram. For control of fruit borer in arhar, spray B.T. @ 1 kg or Indascarb 14.5 SC @ 400 ml or Quinalphos 25 EC @ 1.5 litres and for control of semi-looper in gram, spray BT @ 1kg or Malathion 50EC @ 2.5-3 kg in 500-600 litres of water.
- Due to rise in maximum temperature, there is chance of attack of fruit fly and fruit borer in arhar in Eastern Plain Zone. For control, spray Imidicloprid @ 1 litre in 800-1000 litres of water/ha in Eastern Plain Zone.
- Under humid weather condition, there are chances of incidence of *Alternaria* blight in mustard and late blight in potato in North Eastern Plain Zone. Spray Quinalphos @ 1g or Ridomil MZ @ 2 g/litre of water for control of *Alternaria* blight in mustard and for control of late blight in potato, spray Ridomil MZ @ 2 g + Coper Oxichloride @ 1g per litre of water. For control of attack of aphids in potato and mustard, spray Imidachloprid @ 1ml/litre of water. For control of blight disease in wheat, spray Mancozeb @ 2 ml/litre of water.
- Suitable varieties are given in Annexure I.
- **Floriculture**
- Under prevailing low temperature, red scales are observed in roses in Sub-Montane and Low Hills Sub-Humid Zone of Himachal Pradesh. For control, spray Carbofuran @ 1 teaspoon per plant.
- **Apiculture**
- In view of prevailing low temperature, give winter packing immediately to bee colonies in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. Check the colonies for nectar and give artificial food to honey bees as there is scarcity of flowers during these days. Keep colonies in sun on clear day.
- **Animal Husbandry**
- Due to prevailing low temperature in Punjab, Haryana & Delhi, East Rajasthan, Himachal Pradesh and Uttar Pradesh, keep cattle in cowsheds to protect them from cold. Also give 40-50g mineral mixture with the daily feed. Also make arrangements in poultry houses for protection of birds from cold. Due to light rain, there are chances of spread of H.S. (Haemorrhagic Septicemia or Gall Ghotu) in cattle. Vaccinate the animals.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana



Sugarcane



Sorghum



Mango

- **Realised Weather:** Weather remained dry over the region. Minimum temperatures are below normal by 2-4°C at a few places over Vidarbha; at isolated places over Konkan. They are above normal by 2-6°C at many places over Gujarat; at isolated places over Madhya Maharashtra and near normal over rest of the region.
- **Weather Forecast:** Dry weather would prevail over the region during the period. Minimum temperatures would likely to remain above normal by 2-3°C at many places over west India during next 2-3 days.
- **Weather Warning:** Nil.
- **Advisories:**

▪ **Maharashtra:**

- In Konkan, as dry weather is likely to prevail, apply irrigation to groundnut (at 10–12 days interval), vegetables. Apply fertilizers and undertake intercultural operations in groundnut, vegetable crops and mango and cashew orchards. As dry weather prevails, considering canopy apply 150 to 200 litres of water per mango tree at 15 days interval. Apply grass mulch in lateritic soil to avoid water loss. As day temperature is rising, to avoid fruit dropping, to avoid fruit dropping spray *Amrashakti* @ 1 litre per four trees in 25 litres of water on inflorescence. Maintain 5 cm water level in transplanted rice and finger millet field. Complete intercultural operation (earthing up) in groundnut before pegging.
- In Madhya Maharashtra, as dry weather prevailed, apply irrigation to vegetables, sugarcane, wheat, gram and pomegranate, banana orchards. Continue intercultural operations like weeding and apply fertilizers in sugarcane and vegetables. Complete planting of *suru* sugarcane. Complete sowing of summer groundnut and summer sunflower. Continue harvesting of already matured jowar, gram and safflower during morning hours.
- In Marathwada, as dry weather prevailed during last week and dry weather is likely to prevail, apply irrigation in gram (pod development stage), wheat (dough stage) and vegetables. Apply irrigation to sugarcane by drip irrigation or by alternate furrow method due to water stress condition also apply mulch of crop residue or sugarcane trash to preserve moisture. To reduce moisture loss from the soil dust mulching may be done in late sown jowar. Continue intercultural operations in vegetables and sugarcane. Complete planting of *suru* sugarcane and continue planting of summer okra. Undertake harvesting of jowar, gram and safflower.
- In Vidarbha, as dry weather is prevailing, apply irrigation to vegetables, gram (pod development stage) and wheat (milk stage) and orchards (sweet lime and orange). Maintain upto 5 cm water level in summer rice field (early tillering) in east Vidarbha. Continue sowing of summer groundnut, summer sesame and planting of watermelon, muskmelon and summer okra.
- Due to rise in temperature in Marathwada region there may be attack of red mite on wheat, spray Chlorpyrifos 20 E.C. @ 20 ml per 10 litres of water.

▪ **Gujarat:**

- Continue sowing of groundnut and sowing of green gram, vegetables like okra, cluster bean and cowpea in South Gujarat Heavy Rainfall Zone. Continue transplanting of brinjal seedlings and harvesting of matured spikes of castor. Spray 2% Potassium Nitrate in mango orchard for effective control of fruit dropping and higher flowering setting in South Gujarat Zone, South Gujarat Heavy Rainfall Zone and Middle Gujarat Zone.
- As dry weather is prevailing and there is increase in temperatures, apply irrigation to vegetables at an interval of 3 to 4 days in South Gujarat Zone.
- Continue sowing of summer groundnut, vegetable crops (lady's finger, cluster bean, bottle gourd, sponge gourd, ridge gourd and bitter gourd), watermelon and transplanting of tomato and brinjal in North Saurashtra Zone and land preparation for sowing of sesame and green gram and keep inputs ready. Apply irrigation in wheat (grain development stage), garlic and onion (bulb development stage).
- Continue land preparation for sowing of groundnut and sesame in North Gujarat Zone. As dry weather would prevail, apply irrigation in wheat (milk/grain development stage), mustard (pod development) and in cotton. Continue harvesting of matured spikes of castor and continue picking of matured bolls of cotton during early morning hours in North Gujarat.
- Continue land preparation for sowing of summer crops in Middle Gujarat Zone. As dry weather is prevailing apply irrigation in cotton.
- Apply irrigation in mustard (pod development stage) and wheat (milk stage), cotton (reproductive stage) in Bhal and Coastal Zone of Gujarat. Continue harvesting of matured spikes of castor and continue picking of matured bolls of cotton during early morning hours.
- Due to rise in temperature, there are chances of attack of aphids in cumin in North Gujarat Zone; to control, spray Methyl-O-Demeton 25 EC or Dimethoate 30 EC @ 10 ml per 10 litres of water.
- Suitable varieties are given in Annexure I.

Annexure I
List of varieties

Karnataka

Sunflower: Mordern, K.B.S.H-1, 41, 42 and 44

Maize: Ganga-11, Deccan-103, N.A.C-6002 & 6004, Nityashree

Groundnut: ICGS-11, K-134, Chintamani-2(KCH-2)

Ragi: Indaf-5, GPU-26 and 48

Sugar-cane: Co-86032, Co-94012

Tamil Nadu:

Lady's finger: Arka Anamika, Arka Abhay and Arka Kranthi and hybrids like CoBh H 1 and Co3

Irrigated sesame: TMV 4, TMV 6 and SVPR 1

Assam

Sunflower: Jwalamukhi.

Green gram: Pratap, T-44, Kopergaon, AAU-39, K-851 and ML-55.

Black gram: T-9, Pant-U-19, UG-157.

Direct seeded ahu rice: Banglami, Rangadoria, Ahu joha, Rasi, Banglami, Rangadoria, Ahu joha, Rasi.

Okra: Pusa Sawani, Arka Anamika, Parbhdani Kranti

Odisha

Sunflower: Morden, Sunrise, Surya and Hybrid varieties like KBSH-1, KBSH-3 and MSFH.

Groundnut: Smruti, TAG-27, TAG – 24 and JL-24

Onion: Nasik Red, Patna Red, Pune Red, Bellary Red, Pusa Ratnar, Pusa Madhavi, Arka Niketan ,Arka Pragati

Ragi: HYVs. like Subhra, Vairabi, Dibyasingh, Nilachala, Subhra, Godavari and Chilka.

Bihar

Boro rice: Gutum, Prabhat, Richaria, Dhanlaxmi, SarojRajendraBhagvati, and R.A.U

Sweet Potato: Cross 4 and Rajendra shakarkand 35

Okra: Parvani kranti, Arka abhay, Arka anamika, Barsha Uphar, KS 312, Okra 4, Punjab 7, Pant Bhindi 1

Jharkhand:

Summer Rice: IR-36, IR-64, Naveen, lalat, Parijat (80-85 days).

Summer maize: Birsa Makka-1, Birsa Makka-2, Suwan-1(Hybrid), HQPM (Hybrid)

Jammu & Kashmir

Onion: Agrifound Parvati, Pusa red, N-53.

Uttarakhand

Tomato: VL Tomato-3, Pant T-3, Him Sona, Him Shikhar.

Capsicum: California Vander, Pus Dipti, Anupam. Heera, Indira, Supriya & Bharat.

Potato: Kufri- Jyoti, Ashok, Anand

Himachal Pradesh

Wheat: HPW-155, HPW-89, HPW-147, HPW-236, HPW-211 in low and mid hill and HPW-155, HPW-236, HPW-42 in high hill

Late variety of Cauliflower: broccoli

Cauliflower: Pusa-snowwall

Radish:Japanese white, Chinese pink and mino early white

Turnip: PTWG-1

Carrot: Pusa kesar

Fenugreek: I.C. 74, Kasoori

East Uttar Pradesh

Wheat: Narendra-1012, HD-2824, 2733, HP-1731, UP-2382, PWD-343, CVW-38, DBW-39, UO-2382, HUW-510

Wheat (Late varieties): Malaveey-234, HP-1633, H-1744, Narendra-1014, UP-2425

Onion: Pusa red, Kalynpur red, light red

Lentil: T-8, Pant L-406, 234

Chilli: Patasi-1, Jwala, Sadabahar

Lobia: lobia 263, Pusa Phaguni

Tomato: Pant T-2, Azad T-2, Narendra-1,2,4,5,6

West Uttar Pradesh:

Wheat (non-irrigated): K-9644, Maghar (K-8027), Mandakini (K-9351), Indra (K-8962), Gomati (K-9465), HDR-77, HD-2888

Wheat (Irrigated): K-307, DBW-17, PBW-343,502,550, GW-366, K-1006, 607,402, DVW-39

KRL-210, 213, 19, K-8434(Prasad), NW-1067

Lentil: Narendra-1, DPL-62, Pant-5, L-4076, K-75, HUL-57, Shekhar-3, 2, IPL-81

Sunflower: No.1, PAC- 302, SH-322

Punjab

Sugarcane: CoJ-85, CoJ-83, CoJ-64 (early maturing), COH-119, CoJ-88, CoS-8436 for and CoJ-89

Rajasthan

Groundnut: T.A.G.24, T.G.37A, G.G.2, D.H.86.

Maharashtra

Madhya Maharashtra

Groundnut: SB-11, JL-286, Phule Unati, TPG-41, TG-26 or JL-501.

Sunflower: SS-56, Modern, EC-68414 or bhanu and hybrid varieties like KBSH-1 or phule Raviraj or MSFH-17.

Marathwada

Jowar: Parbhani Moti or Parbhani Jyoti.

suru Sugarcane: CO-86032, COM- 7125, CO-8014 or CO-740

Okra: Parbhani Kranti

Vidarbha

Groundnut: TAG-24, TG-26 or SB-11.

Water Melon: Sugar baby, Arka Jyoti or Arka Manik.

Okra: Arka Anamika, Parbhani Kranti, Akola Bahar or Phule Utkarsha.

Sesamum: AKT-101 or NT-11-99.

Gujarat

Groundnut: GG-2, 5 and 7, TAG-24, TG-37-A, TPG-41, GG-2, GJG-3.

Sesamum: G.Til-2, G.Til-3.