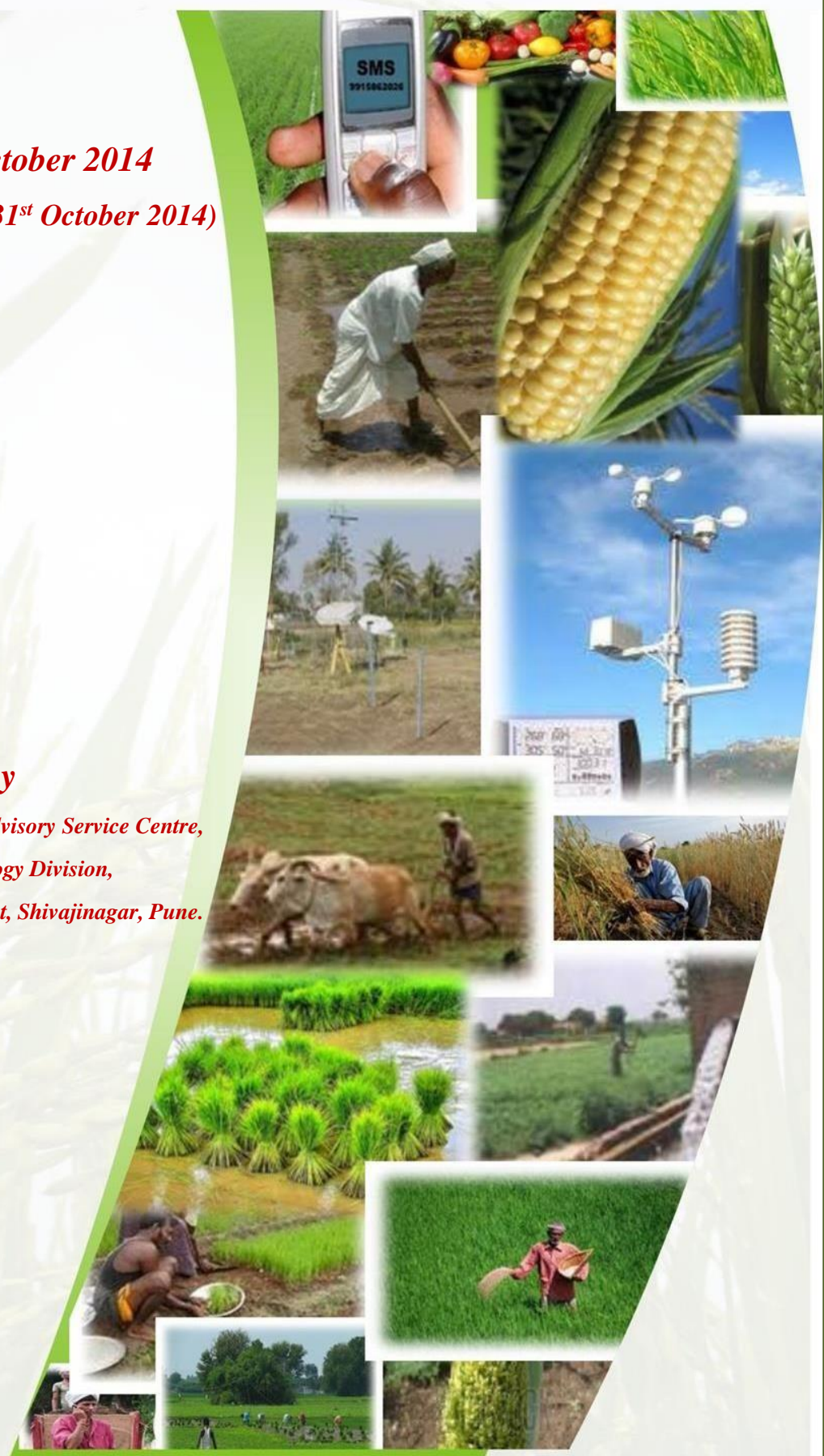


National Agromet Advisory Service Bulletin

Tuesday 28th October 2014
(For the period 28th to 31st October 2014)



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



Cyclone Alert and Agromet Advisories for Gujarat State

Under the influence of very severe cyclonic storm "NILOFAR", rainfall at most places with isolated heavy to very heavy falls would commence along coastal districts of Saurashtra and Kutch from night of 31st October, increase in rainfall activity and windspeed in Gujarat region from 31st October.

Squally winds with speed reaching 45 - 55 kmph gusting to 65 kmph would commence along and off Gujarat coast from night of 31st October and would become 80 - 90 kmph gusting to 100 kmph at the time of landfall.

In view of very severe cyclonic storm "NILOFAR" following agromet advisories are suggested:

- Complete harvesting and threshing of already matured rice in **Middle Gujarat Zone and South Gujarat Heavy Rainfall Zone**, harvesting of groundnut in North Gujarat Zone, harvesting of groundnut, pearl millet and picking of cotton in **North Saurashtra Zone** immediately. Keep harvested produce at safer places.
- Postpone sowing of *rabi* mustard, gram and fennel in **North Gujarat Zone**, sowing of mustard in **North West Zone**, sowing of mustard, gram, peas, carrot and garlic in **North Saurashtra Zone and** sowing of chickpea, sweet corn and planting of sugarcane in **South Gujarat Heavy Rainfall Zone and South Gujarat Zone**.
- Undertake propping in sugarcane and provide mechanical support to young fruit plants to prevent lodging due to high winds in **South Gujarat Heavy Rainfall Zone and South Gujarat Zone**.
- Arrange for extensive drainage facilities to remove excess water from standing crop fields.

Realised Weather on 28th October 2014

Significant weather observations: Thunderstorm has been observed at isolated places over Coastal Andhra Pradesh, South Interior Karnataka, Kerala and Tamilnadu between 0830 hours IST of yesterday to 0530 hours IST of today.

Rainfall: (From 0830 to 1730 hours IST of yesterday): Rain/thundershowers occurred at many places over; Coastal Andhra Pradesh; at a few places over Tamilnadu; at isolated places over East Uttar Pradesh, Gangetic West Bengal, Odisha, Madhya Maharashtra, Konkan & Goa, Rayalaseema, South Interior Karnataka and Andaman & Nicobar Islands. Weather remained dry over rest of the country. The amounts of rainfall (1cm or more) recorded at 1730 hours IST of yesterday were: Kanniyakumari 6; Arogyavaram & Vijayawada 3 each; Atiramapattinam & Valprai 2 each; Tuni, Pamban, Kakinada, Nellore, Kodaikanal, Nedumbassery & Vengurla each.

Yesterday, maximum temperatures were above normal by 2-3°C at isolated places over West Rajasthan and Kerala. They were below normal by 5-8°C at most places over Odisha; at many places over Madhya Maharashtra and at isolated places over Telengana; by 2-4°C at most places over Marathwada, Vidarbha, Gangetic West Bengal, Jharkhand, Chhattisgarh; at many places over Coastal Andhra Pradesh, Rayalaseema and Konkan & Goa; at a few places over East Uttar Pradesh, Madhya Pradesh and northeastern states and near normal over rest of the country.

Weather Forecast

Weather Forecast for next 3 days (upto 0830 hours IST of 31st October, 2014)

- Rain/thundershowers would occur at many places over Konkan & Goa and Coastal Karnataka during the period.
- Rain/thundershowers would occur at many places over South Interior Karnataka and Kerala during next 24 hours; at few places on 29th and at many places on 30th.
- Rain/thundershowers would occur at a few places over Tamil Nadu & Puducherry during next 24 hours; at many places on 29th and at isolated places on 30th.
- Rain/thundershowers would occur at many places over Andhra Pradesh during next 24 hours and decrease thereafter.

Weather Warning during next 3 days

- **28 October (Day 1):** Heavy rainfall would occur at isolated places over Konkan & Goa, South Interior Karnataka and Tamilnadu.
- **29 October (Day 2):** Heavy rainfall would occur at isolated places over interior Tamilnadu and Kerala.
- **30 October (Day 3):** Heavy rainfall would occur at isolated places over interior Tamilnadu and Kerala.

Weather Outlook for subsequent 4 days from 31st Oct. 2014 to 04th Nov 2014

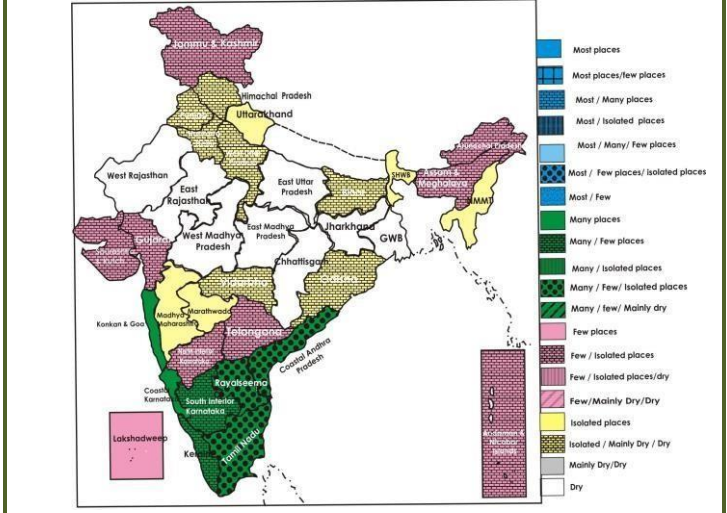
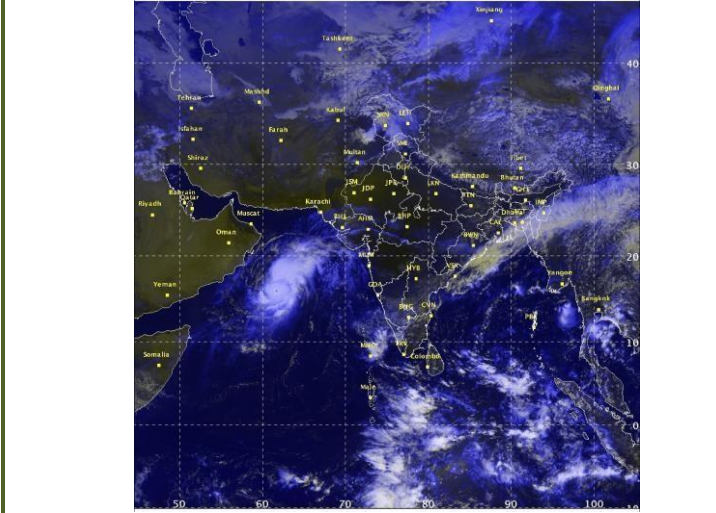
- Increase in rainfall activity and wind speed over Gujarat region from 31st October.
- Rain/thundershower would occur at many places over extreme south Peninsular India.

- Rain/thundershowers would occur at a few places over Lakshadweep during the period.
- Rain/thundershowers would occur at isolated places over Gujarat State during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at a few places over Telangana during next 24 hours; over Jammu & Kashmir, Arunachal Pradesh, Assam & Meghalaya, North Interior Karnataka, Andaman & Nicobar Islands during next 48 hours and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Uttarakhand, Nagaland, Manipur, Mizoram, Tripura, Sub-Himalayan West Bengal & Sikkim, Madhya Maharashtra and Marathwada during the period.
- Rain/thundershowers would occur at isolated places over Odisha, Bihar and Vidarbha during next 24 hours; over Himachal Pradesh, Punjab, Haryana & Delhi during next 48 hours and dry weather would prevail thereafter.
- Dry weather would prevail over West Uttar Pradesh during next 24 hours and rain/thundershowers would occur at isolated places thereafter.
- Dry weather would prevail over Gangetic West Bengal, Jharkhand, East Uttar Pradesh, Rajasthan, Madhya Pradesh and Chhattisgarh during the period.
- Maximum and minimum temperatures would fall by 2-3° C over northwest and adjoining central India from 31st onwards.

- Rain/thundershower would occur at a few places over Andaman & Nicobar Islands and Lakshadweep and at isolated places over northeastern states.
- Weather would be dry over rest of the country.

Satellite image dated, 28.10.2014, 0600 UTC

Weather Forecast Map (Valid upto 0830 hours of 31st October 2014)



Salient Advisories

- In **Madhya Maharashtra**, continue sowing of rabi safflower and wheat. Also continue sowing of irrigated gram and planting of pre-seasonal sugarcane.
- Continue sowing of mustard, linseed and field pea, land preparation for sowing of *rabi* vegetables, earthing up in turmeric, ginger and cole crops in Kymore Plateau and Satpura Hill Zone of **Madhya Pradesh**.
- Continue land preparation and sowing of *rabi* crops like toria, green pea, mustard, gram, linseed etc. and planting of early potato in North Hill Zone of **Chhattisgarh**.
- In North West Alluvial Plain Zone of **Bihar**, continue field preparation for sowing of *rabi* crops like maize, wheat, gram and planting of potato. Continue land preparation in the upland areas for sowing of rapeseed. Undertake sowing of pea, sunflower, garlic and lentil.
- In Western Plateau Zone of **Jharkhand**, in upland areas, continue sowing of toria. Continue planting of early potato and sowing of green peas. Continue sowing of rainfed wheat. Continue land preparation for sowing of different *rabi* crops like gram, lentil, linseed etc. Also continue sowing of rapeseed and mustard.
- Continue transplanting of *samba* rice and *thaladi* rice in the Cauvery Delta Zone of **Tamil Nadu**.
- As rain/thundershowers would occur at many places over **Tamilnadu** on 29th October and over **Kerala** on 28th and 30th October along with isolated heavy falls over interior Tamil Nadu and Kerala during the period, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crop fields to remove excess water.

Detailed Zonewise Agromet Advisories

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



Rice



Sugarcane



Cotton

Soybean

- **Realised Weather:** Thunderstorm has been observed at isolated places over Coastal Andhra Pradesh, South Interior Karnataka, Kerala and Tamilnadu between 0830 hours IST of yesterday to 0530 hours IST of today. Rain/thundershowers occurred at many places over Coastal Andhra Pradesh; at a few places over Tamilnadu; at isolated places over Rayalaseema, South Interior Karnataka. Weather remained dry over rest of the region. Yesterday, maximum temperatures were above normal by 2-3°C at isolated places over Kerala. They were below normal by 5-8°C at isolated places over Telangana; by 2-4°C at many places over Coastal Andhra Pradesh, Rayalaseema and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Coastal Karnataka during the period. Rain/thundershowers would occur at many places over South Interior Karnataka and Kerala during next 24 hours; at few places on 29th and at many places on 30th. Rain/thundershowers would occur at a few places over Tamil Nadu & Puducherry during next 24 hours; at many places on 29th and at isolated places on 30th. Rain/thundershowers would occur at many places over Andhra Pradesh during next 24 hours and decrease thereafter. Rain/thundershowers would occur at a few places over Telangana during next 24 hours; over North Interior Karnataka during next 48 hours and at isolated places thereafter.
- **Weather Warning:** Heavy rainfall would occur at isolated places over South Interior Karnataka and Tamilnadu on 28th October and over interior Tamilnadu and Kerala on 29th and 30th October.
- **Weather Outlook:** Rain/thundershower would occur at many places over extreme south Peninsular India. Weather would be dry over rest of the region.
- **Advisories:**
 - **Andhra Pradesh**
 - As rain/thundershowers would occur at many places over Coastal Andhra Pradesh and Rayalaseema on 28th October, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures

in standing crops.

- Continue sowing of *rabi* groundnut and Bengal gram in Scarce Rainfall Zone of Rayalaseema.
- Due to the prevailing humid weather, sucking pest incidence in cotton is observed in some parts of Anantapuram district in Scarce Rainfall Zone of Rayalaseema which is likely to continue. For control, Monochrotophos /Methyl demeton+ water @ 1:4 ratio may be applied on the stem with brush after current spells of rain at 20,40,60 DAS .
- Present hot weather is congenial for leaf spot attack on groundnut in Southern Zone of Rayalaseema. Spray Hexaconazole @ 2 ml per litre of water after current spells of rain.

▪ **Telangana:**

- Due to prevailing hot and humid weather conditions, there is chance of attack of BPH in rice in the Southern Zone of Telangana. To control, spray Profenophos @ 2 ml + Propiconazole @ 1 ml per liter of water.
- Present hot and partly cloudy weather conditions are congenial for incidence of stem borer in rice in Northern Telangana Zone. Apply Cartap Hydrochloride 4G @ 8 kg/acre when the adult moths/egg masses @ one/ sq. m are noticed in the fields.

▪ **Karnataka:**

- As rain/thundershowers would occur at many places over Coastal Karnataka during the period and over South Interior Karnataka on 28th and 30th along with isolated heavy spells on 28th October, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crop fields to remove excess water in South Interior Karnataka. Postpone harvesting of soybean, black gram and green gram and keep already harvested produce at safe places.
- Continue land preparation for sowing of wheat and sowing of *rabi* crops like sunflower, safflower, horse gram (PHG-9), sesame, cowpea, chickpea, and maize in the North Dry Zone of Karnataka.
- Continue sowing of *rabi* sunflower in Central Dry Zone; maize, sorghum, Bengal gram and sunflower in North East Dry Zone and wheat, sorghum and Bengal gram in North East Transition Zone of Karnataka utilizing the realized and expected rainfall.
- In the Southern Dry Zone of Karnataka, ginger crop is severely affected by Rhizome rot disease due to wet and humid conditions. To manage the disease, undertake spraying of Copper Oxy Chloride @ 3 g/litre of water after current spells of rain.

▪ **Kerala:**

- As rain/thundershowers would occur at many places in Kerala on 28th and 30th October along with isolated heavy falls, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crop fields to remove excess water.
- Continue nursery sowing of rice in the Northern Zone of Kerala and transplanting of rice in the Southern Zone of Kerala.

▪ **Tamil Nadu:**

- As rain/thundershowers would occur at many places over Tamilnadu on 29th October along with isolated heavy falls over interior Tamil Nadu during the period, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crop fields to remove excess water.
- Continue transplanting of *samba* rice and *thaladi* rice in the Cauvery Delta Zone of Tamil Nadu .
- In the Western Zone of Tamil Nadu, continue sowing of dry land crops like sorghum and ragi and sowing of small onion in the North Western Zone of Tamil Nadu after current spells of heavy rain.
- Continue sowing of cotton, maize, pulses and sorghum under dry land conditions in the Southern Zone of Tamil Nadu after current spells of heavy rain.
- Due to high humidity, leaf folder incidence is noticed in rice in North Eastern Zone of Tamilnadu which is likely to spread. To control, spray Profenophos @ 2 ml in one liter of water after current spells of rain.
- In the High Altitude Zone of Tamil Nadu, brown rot disease is noticed in potato due to continuous rainfall. To control brown rot in potato, give proper drainage facilities and remove and destroy the affected plants.
- Suitable varieties are given in Annexure I.

• **Animal Husbandry**

- Provide clean and hygienic water to animals and vaccinate against FMD in the Problem Area Zone of Kerala.

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



Rice



Okra



Cole Crops (Nursery)



Green Gram

- **Realised Weather:** Weather remained dry over the region. Yesterday, maximum temperatures were below normal by 2-4°C at a few places over northeastern states.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Arunachal Pradesh, Assam & Meghalaya during next 48 hours and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Nagaland, Manipur, Mizoram, Tripura during the period.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershower would occur at isolated places over northeastern states.
- **Advisories:**
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Lower Brahmaputra Valley Zone of Assam, continue sowing of rapeseed/ mustard and nursery sowing of winter brinjal, tomato.
 - In Hill Zone of Assam, continue nursery raising of winter vegetables. Continue land preparation and sowing of black gram and green gram.
 - In North Bank Plain Zone of Assam, continue sowing of rapeseed and mustard, planting of potato and nursery sowing of cole crops.
 - In Barak Valley Zone of Assam, undertake land preparation for sowing of rapeseed and mustard and planting of potato.
 - In Central Brahmaputra Valley Zone of Assam, transplanting of cole crops and sowing of early radish may be continued. Continue land preparation and sowing of *rabi* pulses and oilseeds. Continue land preparation for sowing of wheat and planting of potato.
 - In Meghalaya, drain out water from the fields of *Kharif* rice which is at maturity stage and undertake harvesting if 80 % of the spikelets are turned yellow. Continue harvesting of groundnut. In ginger and turmeric, undertake hand weeding followed by fertilizer application, earthing up and mulching. Land preparation and sowing of peas, mustard/rapeseed and planting of potato may be continued.
 - In North Bank Plain Zone of Assam, prevailing weather is conducive for gundhi bug incidence in *sali* rice at panicle initiation, milk and dough stage; apply Malathion 5% dust @ 20 kg/ha to control on a non rainy day.
 - In the prevailing hot weather condition, there is chance of attack of rice blast and stem borer in *Sali* rice in Hill Zone of Assam. Spray Hinosan@ 1ml /litre of water against rice blast and spray Chloropyriphos (20%) @ 2 ml/litre against stem borer on a non rainy day.
 - Due to prevailing humid weather conditions, there is chance of attack of gundhi bug, blast in normal transplanted rice in Arunachal Pradesh. Undertake foliar spray of Hexaconazole 5% EC @ 2 ml/litre of water or Carbendazim 12 % WP+Mancozeb 63% WP @ 2 g/litre of water on a non rainy day.
 - **Nagaland, Manipur, Mizoram and Tripura:**
 - In Manipur, continue harvesting of groundnut and undertake harvesting of matured *kharif* rice. Continue sowing of rapeseed/ mustard and land preparation for planting of potato.
 - In Mizoram, continue sowing of pea, mustard and toria.
 - In Mild Tropical Plain Zone of Tripura, continue transplanting of winter vegetable particularly cauliflower, cabbage, radish, brinjal. Continue land preparation for planting of potato.
 - In Nagaland, continue nursery sowing of winter vegetables. Continue land preparation for toria and harvesting of matured *jhum* rice and soybean.
 - In Mizoram, weather is congenial for attack of stem borer, gundhi bug and leaf blast in rice, Imidacloprid @ 20 ml/10 litres of water against stem borer. Spray Triclozole (Beam) @ 0.5 g/litre against leaf blast.
 - In Tripura, prevailing humid weather is conducive for attack of gundhi bug in short duration *aman* rice. To manage the attack; apply Cypermethrin + Propanophos @ 1.5 ml per litre of water or Cartap Hydrochloride (Dollar) @ 1.5 g per litre of water. Also there is chance of rice blast in long duration aman rice, spray Benlate or

Mancozeb @ 0.25%.

➤ Suitable varieties are given in Annexure I.

• **Animal Husbandry**

➤ In Meghalaya, provide poultry birds (day old to 25 days old) artificial heating through lighting of electric bulb to protect from low temperature.

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



Sugarcane



Groundnut



Onion



Rice

- **Realised Weather:** Rain/thundershowers occurred at isolated places over Gangetic West Bengal, Odisha and Andaman & Nicobar Islands. Weather remained dry over rest of the region. Yesterday, maximum temperatures were below normal by 5-8°C at most places over Odisha; by 2-4°C at most places over Gangetic West Bengal, Jharkhand and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Andaman & Nicobar Islands during next 48 hours and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Sub-Himalayan West Bengal & Sikkim during the period. Rain/thundershowers would occur at isolated places over Odisha, Bihar during next 24 hours and dry weather would prevail thereafter. Dry weather would prevail over Gangetic West Bengal, Jharkhand during the period.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershower would occur at a few places over Andaman & Nicobar Islands. Weather would be dry over rest of the region.
- **Advisories:**
 - **West Bengal:**
 - In Laterite and Red Soil Zone, drain out water from the fields of *aman* rice at harvesting stage. Continue land preparation for nursery sowing of winter vegetables.
 - In Coastal Saline Zone, continue transplanting of cabbage, cauliflower, tomato and planting of potato. Also prepare land for sowing of early mustard variety like agrani, panchali.
 - In Old Alluvial Zone, continue nursery sowing/ sowing of winter vegetables like radish, broccoli. Undertake land preparation for sowing of mustard and harvesting of matured *aman* rice.
 - In Terai Zone, continue transplanting of early cabbage, cauliflower. Continue land preparation for planting of potato, nursery sowing of chilli, tomato, radish and broccoli.
 - Due hot and humid weather, there is a chance of attack of stem borer in *aman* rice in New Alluvial Zone. Spray Carbosulfan 25 EC @ 2 ml / litre or Profenphos 40% + Cypermethrin 4% @ 1 ml / litre of water against stem borer.
 - In Old Alluvial Zone, there are reports of attack of brown plant hopper in *aman* rice. To control the attack, spray Imidachlorpid 200 SL @ 1ml/5litre water or Ethofenprox 10 EC @ 1 ml/litre of water.
 - In Terai Zone, due hot and humid weather, there is chance of attack of neck blast in *aman* rice, spray Carbendazim @ 1 g /litre of water.
 - **Odisha:**
 - Continue sowing of mustard, sunflower and sesame, nursery sowing of onion and transplanting of cole crops in East and South Eastern Coastal Plain Zone of Odisha.
 - In North Eastern Coastal Plain Zone of Odisha, due to high humid weather, there is chance of blast and Sheath rot/blight in rice. To manage blast, apply Tricyclazole @ 0.5 g/litre of water or Kasugamycin @ 1.5 g/litre of water. For control of Sheath rot/blight, alternate application of Hexaconazole @ 400 ml/acre and Thiophanate methyl @ 300 g/acre at two weeks interval is advised.
 - In North Eastern Plateau Zone of Odisha, due to cloudy and high humid weather, there is chance of Tikka leaf spot in groundnut. To control, spray Mancozeb @ 2.5 g per liter of water.
 - Prevailing humidity and temperature are conducive for incidence of leaf roller and case worm in rice in East and South Eastern Coastal Plain Zone of Odisha. To control, spray Triozophos or Fipronil or Hostathion @ 200 ml in 200 litres of water per acre.

- **Bihar:**

- In North West Alluvial Plain Zone of Bihar, continue field preparation for sowing of *rabi* crops like maize, wheat, gram and planting of potato. Continue land preparation in the upland areas for sowing of rapeseed. Continue sowing of rai and coriander. Undertake sowing of pea, sunflower, garlic and lentil. Undertake harvesting of matured rice.
- In South Bihar Alluvial Zone, continue sowing of toria and sowing of fodder crop berseem. Undertake harvesting of matured rice crop.
- Due to prevailing hot weather condition, there is chance of attack of gundhi bug in rice in North West Alluvial Plain Zone and South Bihar Alluvial Zone, apply Folidol dust @ 10-15 kg per hectare in the early morning.

- **Jharkhand:**

- In Western Plateau Zone of Jharkhand, in upland areas, continue sowing of toria. Continue planting of early potato and sowing of green peas. Continue sowing of rainfed wheat. Continue land preparation for sowing of different *rabi* crops like gram, lentil, linseed etc. Also continue sowing of rapeseed and mustard. Continue harvesting of already matured rice.
- In Central & North Eastern Plateau Zone of Jharkhand, continue sowing of toria, mustard, green pea and potato
- In South Eastern Plateau Zone of Jharkhand, continue land preparation/sowing of chick pea. Undertake nursery raising of onion. After harvesting of rice, undertake sowing of rainfed wheat.
- Suitable varieties are given in Annexure I.

- **Animal Husbandry**

- In East and South Eastern Coastal Plain Zone and North Eastern Coastal Plain Zone of Odisha, provide clean drinking water for animals.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Rice



Okra



Onion

- **Realised Weather:** Weather remained dry over the region. Yesterday, maximum temperatures were below normal by 2-4°C at most places over Chhattisgarh; at a few places over Madhya Pradesh.
- **Weather Forecast:** Dry weather would prevail over Madhya Pradesh and Chhattisgarh during the period. Maximum and minimum temperatures would fall by 2-3° C over central India adjoining to northwest India from 31st onwards.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be dry over the region.
- **Advisories:**
 - **Madhya Pradesh:**
 - Continue sowing of mustard, linseed and field pea, land preparation for sowing/ nursery sowing of *rabi* vegetables, earthing up in turmeric, ginger and cole crops in Kymore Plateau and Satpura Hill Zone. Prepare nursery for medium duration cauliflower & cabbage.
 - Continue sowing of vegetable pea (cv. Arkel) and field preparation for planting of early potato in Kymore Plateau and Satpura Hill Zone and Malwa plateau Zone.
 - Continue harvesting of soybean in Nimar Valley Zone and in Malwa plateau Zone.
 - Continue harvesting of matured soybean, green gram, black gram, groundnut and maize in Jhabua Hills Zone. Undertake land preparation for sowing of mustard, gram and wheat and keep inputs ready. Continue nursery sowing of early winter vegetables (tomato, chilli, brinjal, cauliflower, cabbage, capsicum), sowing of early green pea and planting of early potato. Irrigate the cotton crop (flowering/boll formation stage) under moisture stress condition.
 - Continue harvesting and threshing of matured urad, moong, til and soybean in Bundelkhand Zone. Undertake sowing of sarson saag, radish, spinach and coriander crops utilising available soil moisture. Hoeing and weeding is advised in fruit orchard.
 - Due to cloudy weather there are chances of attack of sucking pest in vegetables in Vindya Plateau Zone of Madhya Pradesh, spray Imidacloprid or Thiamethoxam @ 0.35 g per litre of water.
 - **Chhattisgarh:**
 - Continue harvesting of matured rice in Chhattisgarh Plain Zone and keep it in the field for proper sun drying for

1-2 days.

- Continue land preparation and sowing of *rabi* crops like toria, green pea, mustard, gram, linseed etc. and planting of early potato in North Hill Zone of Chhattisgarh utilising the available soil moisture.
- Keep inputs ready for sowing of toria, green pea and linseed in Bastar Plateau Zone.
- Suitable varieties are given in Annexure I.

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



Rice



Sugarcane



Bottle Gourd



Onion

- **Realised Weather:** Rain/thundershowers occurred at isolated places over East Uttar Pradesh. Weather remained dry over rest of the region. Yesterday, maximum temperatures were above normal by 2-3°C at isolated places over West Rajasthan. They were below normal by 2-4°C at a few places over East Uttar Pradesh and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Jammu & Kashmir during next 48 hours and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Uttarakhand during the period. Rain/thundershowers would occur at isolated places over Himachal Pradesh, Punjab, Haryana & Delhi during next 48 hours and dry weather would prevail thereafter. Dry weather would prevail over West Uttar Pradesh during next 24 hours and rain/thundershowers would occur at isolated places thereafter. Dry weather would prevail over East Uttar Pradesh, Rajasthan during the period. Maximum and minimum temperatures would fall by 2-3° C over northwest India from 31st onwards.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be dry over the region.
- **Advisories:**
 - **Jammu & Kashmir:**
 - Undertake land preparation for sowing of mustard, toria, barley, gram, lentil, cauliflower, knoll, kol, radish, pea and continue sowing of wheat in Intermediate Zone of Jammu & Kashmir. Also continue nursery sowing of cauliflower, cabbage, radish and knoll khol.
 - In Sub-Tropical Zone of Jammu & Kashmir, undertake land preparation for sowing of wheat, mustard, toria and continue land preparation for sowing of pulses viz. chickpea, pea and lentil and also direct sowing of vegetable crops like radish carrot, fenugreek, spinach and spinach beet, coriander, continue planting of potato and transplanting of tomato. Also continue sowing of ghobi sarson with toria as mixed or intercrop and nursery raising of cole crops and onion.
 - Undertake land preparation for sowing of vegetables viz. peas, spinach and methi and planting of garlic in Valley Temperate Zone of Jammu & Kashmir.
 - **Himachal Pradesh:**
 - Continue sowing of early wheat, planting of potato and sowing of early varieties of pea and onion in Lower and Mid Hills regions of Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. Undertake sowing of radish, turnip, carrot and fenugreek and transplanting of cabbage, cauliflower and broccoli. Continue sowing of gobhi sarson, linseed and sowing of berseem, lucerne and oats as fodder crops during *rabi* season and harvesting of rice, soybean mash and cowpea. Complete sowing of gram and lentil. Undertake sowing of barley in high altitude areas.
 - Complete sowing of radish, turnip and spinach in Mid Hills Sub-Humid Zone of Himachal Pradesh. Continue nursery preparation for sowing of late season cauliflower (Pusa-snowball) and cabbage utilizing realized rainfall. Continue harvesting of onion, tomato, capsicum and cucumber.
 - As mainly dry weather would prevail, continue harvesting of rajmah and potato in High Hill Temperate Dry Zone of Himachal Pradesh.
 - Under prevailing humid weather condition, there are chances of attack of cut worm in cauliflower in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. Apply Chloropyriphos 20 EC @ 80ml in 1kg sand in the fields.
 - Under prevailing humid weather condition, there are chances of attack of canker and mite attack in apple in Mid Hills Sub Humid Zone of Himachal Pradesh. Spray Carbendazim or Copper Oxy Chloride @ 600g per 200 litres

of water against canker and apply Fenazaquin @ 50 ml or properzite @ 200 ml per 200 litres of water for mite.

■ **Uttarakhand:**

- Continue land preparation for sowing of wheat and planting of potato. Continue transplanting of onion and sowing of garlic, mustard, palak, methi, radish, early toria, pea in Hill Zone of Uttarakhand.
- Continue sowing of mustard and planting of autumn sugarcane in Bhabar and Tarai Zone of Uttarakhand. Continue sowing of pea and toria and planting of potato. Continue land preparation for sowing of radish, fenugreek and spinach. Continue harvesting of matured rice and soybean.
- Continue harvesting of *kharif* maize and pulses like urad /moong and undertake field preparation for planting of winter sugarcane in Sub Humid Sub Tropical Zone of Uttarakhand.

■ **Punjab, Haryana and Delhi:**

- In Western Undulating Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot under irrigation and turnip and planting of mango, litchi and apply irrigation in rice, cotton and maize.
- In Central Plain Zone of Punjab, continue sowing of desi varieties of carrot, radish and turnip crops and undertake transplanting of tomato under irrigation. Continue planting of potato and nursery sowing of cauliflower. Continue harvesting of matured maize and groundnut in Ludhiana district. Continue planting of early maturing autumn sugarcane.
- In Undulating Plain Zone of Punjab, hot and humid conditions may lead to sheath blight in rice, spray Tilt @ 0.1% on the disease spots. Present weather condition is congenial for attack of leaf folder and stem borer in rice, spray Monocrophos 36SL @ 560ml in 100 lits of water per acre.
- In Western Zone of Haryana, prepare the fields for sowing of mustard and gram and arrange the certified seeds for mustard and gram. As dry weather would prevail, harvest matured guar, bajra and continue the picking of matured cotton bolls of early sown cotton.
- Present weather is favourable for attack of top borer in sugarcane in Western Zone of Haryana, apply Carbofuran 3G @13 kg or Phorate 10G @ 8 kg in furrows and apply light irrigation.
- In Delhi, continue transplanting of onion seedlings and planting of early potato. Continue land preparation for sowing of early mustard, pea and early toria and sowing of radish, spinach and coriander.

■ **Uttar Pradesh:**

- Continue harvesting of rice in Eastern Plain Zone and Central Plain Zone of Uttar Pradesh.
- Continue sowing of late varieties of mustard with a distance of 45x15cm and at 3cm depth and gram with available soil moisture in Allahabad, Fatehpur, Pratapgrah, Chitrakoot and Kaushambi districts of Central Plain Zone of Uttar Pradesh.
- Undertake sowing of gram, peas and lentil with available soil moisture in Ambedkarnagar, Basti, Faizabad and Gorakhpur districts of Eastern Plain Zone of Uttar Pradesh.
- Continue sowing of rapeseed, mustard and planting of potato in Eastern Plain Zone of Uttar Pradesh.
- Undertake land preparation for sowing of garlic, coriander and fenugreek and transplanting of cauliflower, cabbage, brinjal, chilli and tomato in Ballia district of Eastern Plain Zone of Uttar Pradesh.
- Continue nursery sowing of tomato, cauliflower, *Tara-mira*, *Alsi*, Berseem, transplanting of onion and planting of sugarcane and potato in Western Plain Zone of Uttar Pradesh with available moisture.
- Continue sowing of peas and gram and undertake sowing of rapeseed, mustard, maize and vegetables like spinach, fenugreek, carrot, radish, garlic in Central Plain Zone of Uttar Pradesh. Complete planting of potato and transplanting of ageti cauliflower, cabbage, chilli, brinjal and tomato. Continue harvesting of rice.
- Undertake harvesting of rice and groundnut in Jhansi district of Bundelkhand Zone of Uttar Pradesh. Undertake sowing of peas, lentil, gram, mustard and rapeseed. Maintain 5cm level of water in rice during grain formation stage.
- Under prevailing humid weather condition, there are chances of attack of stem borer, brown plant hopper, gall midge, leaf folder and jassids in rice in Central Plain Zone of Uttar Pradesh. Spray Quinalphos 25 EC @ 1 litre per hectare.

■ **Rajasthan:**

- Continue land preparation and sowing of mustard, barley, nurse sowing of cauliflower, cabbage and planting of potato in Flood Prone Eastern Plain Zone of Rajasthan.
- Continue land preparation for sowing of lucerne, taramira, methi and mustard in Transitional Plain Zone of Inland Drainage of Rajasthan
- Continue nursery sowing of cauliflower and radish and continue sowing of rainfed taramira, toria and mustard in Semi Arid Eastern Plain Zone of Rajasthan.
- Continue sowing of cummin, rapeseed (sarson) in Arid Western Plain Zone (Jodhpur) of Rajasthan.
- Continue land preparation for sowing of *rabi* crops viz. mustard, gram and fodder crops like lucerne, berseem, in Arid Western Plain Zone (Bikaner) of Rajasthan.
- Continue land preparation and sowing of rapeseed, gram, linseed in irrigated North Western Plain Zone of Rajasthan.
- In Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, undertake sowing of gram and mustard and continue harvesting of maize and sorghum.
- Suitable varieties are given in Annexure I.

- **Floriculture**

- Undertake nursery raising of winter flowers in polyhouses in Sub Montane and Low Hills Sub-Tropical; Zone of Himachal Pradesh. For the control of blue beetle in roses and balsam, spray Cypermythrin @0.05%. Present weather is conducive for attack of mites in carnation. For control, spray Cypermythrin @0.05% at 15 days interval.

- **Animal Husbandry:**

- Under prevailing humid weather condition, there are chances of attack of ticks and mites on animals also in Flood Prone Eastern Plain Zone of Rajasthan, Sub Montane and Low Hills Sub-Tropical; Zone of Himachal Pradesh and Intermediate zone of Jammu & Kashmir. For control spray Butox @ 2.0 ml per litre of water. Clean the cowshed with phenyl and keep the animal sheds dry and clean.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Rice

Sugarcane

Cotton

Soybean

- **Realised Weather:** Rain/thundershowers occurred at isolated places over Madhya Maharashtra, Konkan & Goa. Weather remained dry over rest of the region. Yesterday, maximum temperatures were below normal by 5-8°C at many places over Madhya Maharashtra; by 2-4°C at most places over Marathwada, Vidarbha; at many places over Konkan & Goa and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Konkan & Goa during the period. Rain/thundershowers would occur at isolated places over Gujarat State during next 48 hours and at a few places thereafter. Rain/thundershowers would occur at isolated places over Madhya Maharashtra and Marathwada during the period. Rain/thundershowers would occur at isolated places over Vidarbha during next 24 hours and dry weather would prevail thereafter.
- **Weather Warning:** Heavy rainfall would occur at isolated places over Konkan & Goa on 28th October.
- **Weather Outlook:** Increase in rainfall activity and wind speed over Gujarat region from 31st October. Weather would be dry over rest of the region.
- **Advisories:**
 - **Maharashtra:**
 - As rain is expected at many places with isolated heavy falls during next 24 hours, postpone irrigation, fertilizer application and intercultural operations in vegetable crops and mango and cashew orchards. Complete harvesting of already matured mid late and late maturing rice variety and matured finger millet during morning hours immediately after current spells of rain. Keep harvested produce in safer place. Undertake the sowing of brinjal, chilli, cabbage and knol khol on raised beds after current spells of rain.
 - In Madhya Maharashtra, maintain the water level upto 8 cm in rice fields in grain formation stage. Apply irrigation to sugarcane, vegetables and grapes, banana and pomegranate orchards and early sown *rabi* jowar. Complete harvesting of already matured soybean and groundnut. Complete harvesting of matured rice in Kolhapur region and start the harvesting of matured rice in Western ghat region and Western parts of Pune district. Keep the harvested produce in a safer place. Undertake intercultural operations like weeding and fertilizer application in **sugarcane, vegetables, early sown rabi jowar** and **orchards**. Utilizing available soil moisture, continue sowing of *rabi* safflower and wheat. Also continue sowing of irrigated gram and planting of pre-seasonal sugarcane.
 - In Marathwada, apply irrigation to sugarcane and vegetables. Undertake intercultural operation like weeding and fertilizer application to sugarcane, early sown *rabi* jowar and vegetables. Prepare field for sowing of *rabi* safflower, irrigated gram and wheat. Complete harvesting of already matured soybean and sunflower. Start picking fully opened cotton boll (irrigated and early sown) during morning hours.
 - In Vidarbha, as dry weather is prevailing, apply irrigation in vegetables and orange, sweet lime orchards. Apply fertilizers and undertake intercultural operations in vegetables. Maintain water level up to 8 cm in rice fields in East Vidarbha. Prepare the field and continue sowing of safflower and *rainfed* gram with the help of available soil moisture. Soybean is at maturity stage, complete harvesting of matured crop and prepare harvested field and undertake sowing of safflower and gram. Continue harvesting of early maturing rice crop in East Vidarbha.
 - Light rain and humid weather in Pune region is congenial for infestation of downy mildew in grapes; spray Metalaxyl 8% +Mancozeb 64% @ 20 g per 10 litres water and repeat same after 10 to 12 days interval.

- Due to cloudy weather in Vidarbha, there may be attack of Heliothis (green boll worm); spray HANPV 250 LE per ha in 10 litres of water. If attack exceeds ETL, spray Spinosad 45 SC 2.22 ml per 10 litres of water.
- Due to light rain and humid weather in Sub Montane Zone of South Madhya Maharashtra there may be attack of white woolly aphids in sugarcane; remove dried leaves and use Thimath @4 kg per acre.
- **Gujarat**
- Under the influence of very severe cyclonic storm “NILOFAR”, rainfall at most places with isolated heavy to very heavy falls would commence along coastal districts of Saurashtra and Kutch from night of 31st October, increase in rainfall activity and windspeed in Gujarat region from 31st October.
Squally winds with speed reaching 45 - 55 kmph gusting to 65 kmph would commence along and off Gujarat coast from night of 31st October and would become 80 - 90 kmph gusting to 100 kmph at the time of landfall.
In view of very severe cyclonic storm “NILOFAR” following agromet advisories are suggested:
 - Complete harvesting and threshing of already matured rice in **Middle Gujarat Zone and South Gujarat Heavy Rainfall Zone**, harvesting of groundnut in North Gujarat Zone, harvesting of groundnut, pearl millet and picking of cotton in **North Saurashtra Zone** immediately. Keep harvested produce at safer places.
 - Postpone sowing of *rabi* mustard, gram and fennel in **North Gujarat Zone**, sowing of mustard in **North West Zone**, sowing of mustard, gram, peas, carrot and garlic in **North Saurashtra Zone** and sowing of chickpea, sweet corn and planting of sugarcane in **South Gujarat Heavy Rainfall Zone and South Gujarat Zone**.
 - Undertake propping in sugarcane and provide mechanical support to young fruit plants to prevent lodging due to high winds in **South Gujarat Heavy Rainfall Zone and South Gujarat Zone**.
 - Arrange for extensive drainage facilities to remove excess water from standing crop fields.
- **Animal Husbandry**
- In Gujarat, keep animals indoor during the cyclonic storm period.

Annexure I List of varieties

Tamil Nadu

Late Samba/ Thaladi rice: ADT 38, ADT 46, ADT 49, Improved white Ponni, IR 20, ASD 19, Paiyur1, TRY 1, TRY 3, CO 48, CO 49, BPT 5204 and CO 50

Direct seeded rice: (White Ponni or ADT 39)

Assam

Green gram: T-44, Kopergaon, K-851, ML-56, ML-131 etc.

Black gram : T-9, T-27, Pant U-19, T-122.

Radish : Pusa Deshi, Pusa Chetki, Pusa Himani

Cauliflower : Improved Japanese, Pusa Synthetic, Pusa Snowhall and Main Crop Patna.

Early maturity Cabbage varieties : Golden Acre, Pride of India, Pusa Mukta (Sel – 8).

Early maturity Knol Khol : White Vienna.

Winter brinjal : Pusa Kranti, Pusa Purple Long, Pusa Purple Round, Pusa Vairab, Pant Samrat

Meghalaya

Pigeon pea: short duration : UPAS-120, ICPL 87. long duration WB 20, Pusa 9 & Sarita.

Cabbage: H-139, Pride of India

Cauliflower: Meghalaya Local

Carrot: New Karoda, Nantesh

Radish: Local genotype

Broccoli: Puspa, Aiswarya

French bean: Naga Local

Pea: Arkel (for vegetables), TRC P8, TRC P9, Prakash, Rachna.

Potato: Kufri Joyti, Kufri Megha, Kufri Giriraj, Kufri Girdhari, Kufri Himsona, Kufri Himalini.

Pea: Arkel (for vegetables), TRC P8, TRC P9, Prakash, Rachna.

Tripura

Tomato: Trishul, Allrounder, T- 1408, T- 1458, Anup.

Cauliflower: CFL- 4048, Pusa early synthetic, Kamaya, Suhasihi.

Cabbage: BC- 76, Pusa Drum Head, Pusa Synthetic.

Broccoli: Everest, Ayeswaria.

Odisha

Sesame: Kanak, Kalika, Uma, Usha, Tilotama, Nilima, Prachi

Greengram: K-851, PDM-11, PDM-54, OUM-11-5
Blackgram: T-9, Pant U-11, Pant U-19, Pant U-30
Cowpea: SEB-2, Pusa Barsati Niger: Deomali, Niger-1 and for Okra: Utkal Gourav.

West Bengal

Banana: Mortoman, Chapa, Kathali, Singapuri.
Tomato: Avinash-2, 448.
Cabbage: Pride of India, Pusa early, Kranti.
Cauliflower: Jawhar moti, Bharat Jyoti, Early banaras

Bihar

Shakarkand: Rajendra Shakarkand- 5, Rajendra Shakarkand-35, Rajendra Shakarkand-43, Rajendra Shakarkand-47, Kalmegh and Rajendra Shakarkand-92.
Pigeon Pea: arhar: Bahar, Pusa 9, Narendra Arhar 1
Urd: T-9, Pant U-19, Pant Urd 31, PDU-1
Radish: Pusa Chetki, Pusa Himani, Pusa Rashmi, Japani Saphed
Pointed gourd: Rajendra Parwal-1, Rajendra parwal-2, FP1 and 3

Jharkhand:

Urd: T 9, Pant U 19, 30, 35 and Birsa urd 1
Moong: Pusa Vishal, S M L 668, K 885, P S 16, Pant Moong 2 and P D M 11.
Arhar: Birsa Arhar (210 days), Bahar (240 Days) and ICPH 2671 (210 days),
Maize: short duration variety: Birsa Vikas Maize-2 and medium duration variety: Birsa Maize-1.

Madhya Pradesh

Gram: JG-130, JG-11, JG-315, JG-16
Wheat: Sujata, HW-2004, HI-1500
Winter Sugarcane: KJN 86-572, KJN 86-141
Green Pea: Arkel, PSM-3

Jammu & Kashmir

Berseem: Mescavi, Pusa Giant, BL-1 and Vardan

Uttarakhand

Pea: VL Ageti Mater-7, Vivel Mater-10, Pant Subjee Mater-3, Azad Mater-3 and Arkel
Potato: Kufri- Jyoti, Ashok, Anand
Toria : Pant Toria-30, 303, 507 or local varieties.

Himachal Pradesh

Peas: Palam Triloki, Arkel, VL-7 and Matar Ageta
Late variety of Cauliflower: broccoli

East Uttar Pradesh

Cabbage: Imprabad Japani, Pusa chipali and Pusa kartiki
Radish: Japani white, Pusa chetakij, Hisar Muli No.1 and kalyanpur-1
Toria: T-9, T-36, Pant -30,303, B-9
Potato: Kuferi - Chandramukhi, Bahar
Mustard: Basati, Maya, Kanti, Urvashi, Narendra, Swarna-8, Narendra Ageti-4
Ageti Matar: Kashi - Nandini, Uday, Mukti, Arkel, Azad-3

West Uttar Pradesh:

Toria: Sangam, TL-17, 67
Ageti matar: Azad P-3, Arkel

Maharashtra

Madhya Maharashtra

rabi jowar: Selection-3, Phule Mauli, Phule Anuradha in light soil, Phule Chitra, Maldandi-35-1 in medium soil and Phule Vasudha, Phule Yashodha in black soil
Safflower: Bhima or Phule Kusuma

Marathwada

Jowar: Parbhani Moti or Parbhani Jyoti.

Gujarat:

Pea: Pusa Pragati.
Carrot: Pusa Rudhira and Pusa Kesar.