

National Agromet Advisory Service Bulletin

Tuesday 3rd March 2015
(For the period 3rd to 6th March 2015)



Issued by

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



Realised Weather on 3rd March 2015

- **Significant weather observations:** Thunderstorms have been observed at isolated places over Uttarakhand, Punjab, Haryana, Delhi, Uttar Pradesh, West Madhya Pradesh and Vidarbha between 0830 hours IST of yesterday to 0830 hours IST of today.
- **Rainfall:** (From 0830 hours IST of yesterday to 0830 hours IST of today): Rain/snow has occurred at most places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Rain/thundershowers has occurred at most places over Bihar; at many places over Chhattisgarh and Uttar Pradesh; at a few places over Punjab, Haryana & Delhi, Madhya Pradesh, Jharkhand, Sub-Himalayan West Bengal & Sikkim and Kerala; at isolated places over Arunachal Pradesh, Assam & Meghalaya, Gangetic West Bengal, Vidarbha, Coastal Andhra Pradesh, Interior Karnataka, Tamilnadu, Rayalaseema & East Rajasthan and weather remained dry over rest of the country. The amounts of rainfall (1 cm or more) recorded at 0830 hours IST of today are: Dehradun7; Mukteshwar6; Banihal, Katra, Una, Solan, Nahan, Pantnagar & Bareilly5 each; Jammu, Dharmasala, Tehri & Shimla(A/P)4 each; Qazigund, Batote, Baderwah, Manali, Bhuntar & Ludhiana3 each; Kupwara, Gulmarg, Sundernagar, Delhi(Ridge), Jabalpur & Bangalore2 each and Srinagar, Pahalgam, Kokarnag, Meerut, Ambala, Durg, Rajnadaon, Shajapur, Ambikapur, Durg, Pasighat, Darjeeling, Arogyavaram & Palakkad1each.
- **Temperature:** Minimum temperatures are below normal by 5-7°C at isolated places over West Madhya Pradesh, Konkan & Goa and Madhya Maharashtra; by 2-4° C at many places rest Konkan & Goa, rest Madhya Maharashtra and Marathwada; at a few places over Jammu & Kashmir, Himachal Pradesh, West Rajasthan, Gujarat and Interior Karnataka; at isolated places over Uttarakhand, Haryana & Delhi and East Rajasthan. They are above normal by 2-5°C at many places over East Uttar Pradesh, Assam & Meghalaya and Tamilnadu; at a few places over Punjab, Bihar, Sub-Himalayan West Bengal & Sikkim and Arunachal Pradesh; at a few places over East Madhya Pradesh, Odisha, Nagaland, Manipur, Mizoram & Tripura, Telangana and south coastal Andhra Pradesh and near normal over rest of the country.

Weather Forecast

- No significant change in minimum temperatures and maximum temperatures would rise by 3-5°C over northwest, west and central India during next 2-3 days.

5-Day Rainfall Forecast (MORNING)

DATED: 03-03-2015

S.N	MET. SUB-DIVISION	Forecast				
		03-03-15	04-03-15	05-03-15	06-03-15	07-03-15
1	A & N Islands	DRY	DRY	DRY	DRY	DRY
2	Arunachal Pradesh	SCT	SCT	ISOL	ISOL	ISOL
3	Assam & Meghalaya	SCT	SCT	ISOL	ISOL	ISOL
4	Nag, Mani, Mizo & Tripura	ISOL	ISOL	ISOL	DRY	DRY
5	SHWB & Sikkim	SCT	ISOL	DRY	DRY	DRY
6	Gangetic West Bengal	SCT	ISOL	DRY	DRY	DRY
7	Odisha	SCT	ISOL	ISOL	DRY	DRY
8	Jharkhand	SCT	ISOL	DRY	DRY	DRY
9	Bihar	SCT	ISOL	DRY	DRY	DRY
10	East Uttar Pradesh	SCT	ISOL	DRY	DRY	DRY
11	West Uttar Pradesh	SCT	ISOL	DRY	DRY	DRY
12	Uttarakhand	FWS	ISOL	DRY	ISOL	ISOL
13	Haryana, Chd & Delhi	SCT	ISOL	DRY	DRY	DRY
14	Punjab	SCT	ISOL	DRY	ISOL	DRY
15	Himachal Pradesh	FWS	ISOL	ISOL	SCT	ISOL
16	Jammu & Kashmir	FWS	SCT	SCT	FWS	SCT
17	West Rajasthan	ISOL	DRY	DRY	DRY	DRY
18	East Rajasthan	ISOL	DRY	DRY	DRY	DRY
19	West Madhya Pradesh	SCT	DRY	DRY	DRY	DRY
20	East Madhya Pradesh	ISOL	DRY	DRY	DRY	DRY
21	Gujarat Region	DRY	DRY	DRY	DRY	DRY
22	Saurashtra, Kutch & Diu	DRY	DRY	DRY	DRY	DRY
23	Konkan & Goa	DRY	DRY	DRY	DRY	DRY
24	Madhya Maharashtra	DRY	DRY	DRY	DRY	DRY
25	Marathwada	DRY	DRY	DRY	DRY	DRY
26	Vidarbha	ISOL	DRY	DRY	DRY	DRY
27	Chhattisgarh	SCT	ISOL	DRY	DRY	DRY
28	Coastal Andhra Pradesh	SCT	ISOL	ISOL	DRY	DRY
29	Telangana	ISOL	DRY	DRY	DRY	DRY
30	Rayalaseema	ISOL	ISOL	ISOL	DRY	DRY
31	Tamilnadu & Pudd.	ISOL	ISOL	ISOL	ISOL	DRY
32	Coastal Karnataka	DRY	DRY	DRY	DRY	DRY
33	N I Karnataka	DRY	DRY	DRY	DRY	DRY
34	S I Karnataka	ISOL	ISOL	ISOL	ISOL	ISOL
35	Kerala	SCT	ISOL	ISOL	SCT	ISOL
36	Lakshadweep	ISOL	ISOL	DRY	ISOL	DRY

% of stations reporting rainfall			
% Stations	Category	% Stations	Category
76-100	Widespread/Most Places (WS)	26-50	Scattered/ few places (SCT)
51-75	Fairly Widespread/Many Places (FWS)	1-25	Isolated (ISOL)
No Rain	Dry		

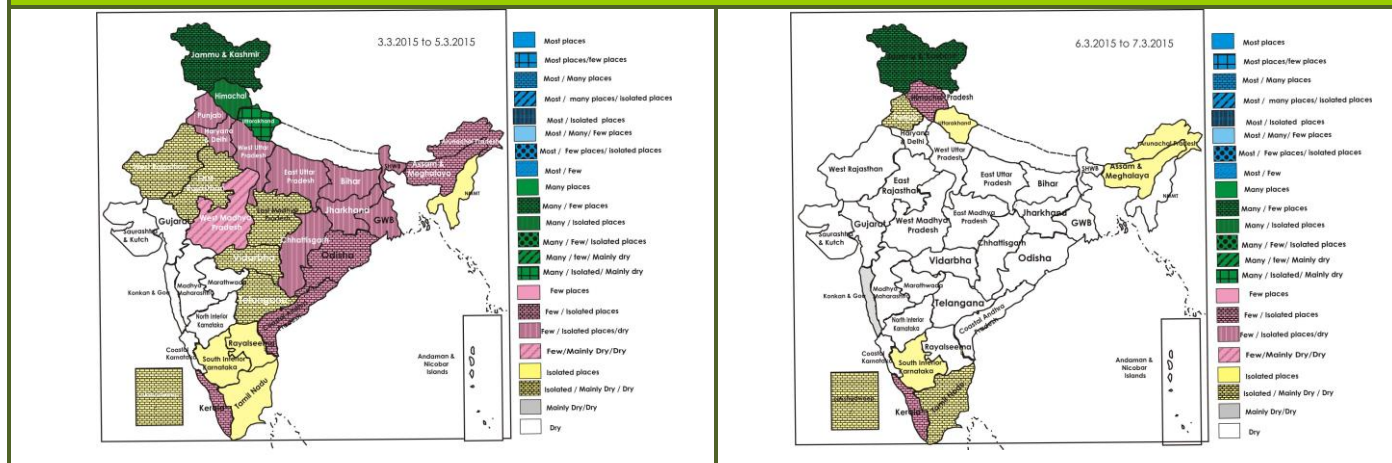
Weather Warning during next 5 days

- **03 March (Day 1):** Heavy rain/snow would occur at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand.
Thunderstorm accompanied with squall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
Thunderstorm accompanied with hailstorm would occur at isolated places over Bihar, Jharkhand, Sub-Himalayan West Bengal & Sikkim.
- **04 March (Day 2):** Thunderstorm accompanied with squall would occur at isolated places over Assam & Meghalaya.
- **05 March (Day 3):** No Weather Warning.
- **06 March (Day 4):** No Weather Warning.
- **07 March (Day 5):** No Weather Warning.

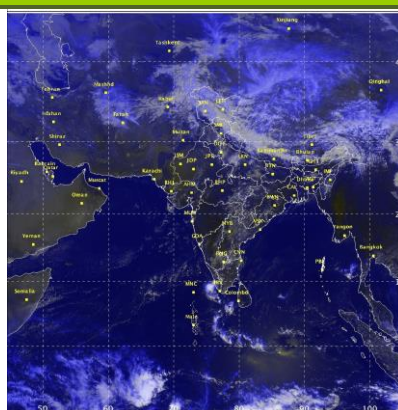
Weather Outlook for subsequent 2 days From 08th March 2015 to 10th March 2015

- A fresh western disturbance as an upper air system would affect western Himalayan region from 7th and likely to cause scattered precipitation over the region.
- Isolated rain/thunderstorm would occur over plains of northwest and central India from 7th onwards.
- Rain / thunderstorm activity would occur at a few places over northeastern states and at isolated places over peninsular India.

Weather Forecast Map (Valid upto 0830 hours of 8th March, 2015)



Satellite image dated, 03.03.2015, 0600 UTC



Salient Advisories

- In **Maharashtra**, rainfall occurred at most places on 1st and 2nd March, due to untimely rain there was fruit dropping in mango and cashew orchard in **Konkan**, collect dropped fruits and infested leaves and branches and destroy it. To avoid further spread of pest and disease clean the orchards. In **Madhya Maharashtra**, drain out excess water from wheat crop in Western Ghat region also due to sudden drop in minimum temperature, there may be fruit cracking in grapes, apply light irrigation. Due to rain, there was lodging of matured jowar, wheat. Farmers are advised to harvest matured crop at the earliest. In **Marathwada**, due to rain crop damage in matured jowar, wheat and gram is expected due to lodging. Harvest matured crop at the earliest. In **Vidarbha**, due to rain and squally wind, there was lodging in wheat and banana. Harvest matured wheat during sunny hours at the earliest to avoid the sprouting. Provide mechanical support to banana plant. Due to untimely rain there was fruit dropping in orange, collect dropped fruits and infested leaves and branches and destroy. To avoid further spread of pest and disease clean the orchards.
- In **East Madhya Pradesh**, due to heavy rain, there was waterlogging in wheat and barley fields, drain out excess water from the crop fields.
- In **Uttar Pradesh** and **Haryana & Delhi**, harvest matured mustard at the earliest.
- As rain/snow would occur at many places over **Jammu & Kashmir** on 3rd & 6th March, over **Himachal Pradesh** and **Uttarakhand** on 3rd, along with heavy rain/snow fall at isolated places on 3rd March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep already harvested crops at safe places. Provide adequate drainage in standing crops to avoid water stagnation.
- As thunderstorm accompanied with squall would occur at isolated places over **Assam & Meghalaya** on 3rd and 04th March and over **Nagaland, Manipur, Mizoram** and **Tripura** on 3rd March, provide mechanical support to banana and staking of vegetables to prevent the crops from lodging due to strong winds.
- As thunderstorm accompanied with hailstorm would occur at isolated places over **Sub-Himalayan West Bengal & Sikkim, Bihar** and **Jharkhand** on 3rd March, farmers are advised to use hail nets for orchard crops to protect from mechanical damage. Also provide mechanical support to vegetables to prevent the crops from lodging due to strong winds.

Detailed Zonewise Agromet Advisories

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



Sorghum



Sugarcane



Chilli



Rice Transplanting

- **Realised Weather:** Rain/thundershowers has occurred at a few places over Kerala; at isolated places over Coastal Andhra Pradesh, Interior Karnataka, Tamil Nadu, Rayalaseema and weather remained dry over rest of the region. Minimum temperatures are below normal by 2-4° C at a few places over Interior Karnataka. They are above normal by 2-5°C at a few places over Telangana and south coastal Andhra Pradesh and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Coastal Andhra Pradesh on 3rd March, over Kerala on 3rd and 6th March. Rain/thundershowers would occur at isolated places over South Interior Karnataka for next 5 days, over Tamil Nadu & Puducherry for next 4 days, over Rayalaseema for next 3 days, over Kerala on 4th, 5th and 7th March, over Coastal Andhra Pradesh on 4th and 5th March, over Telangana on 3rd March, dry weather would prevail during rest of the period. Dry weather would prevail over Coastal and North Interior Karnataka during the period.
- **Weather Warning:** Nil
- **Weather Outlook:** Rain / thunderstorm activity would occur at isolated places over peninsular India.
- **Advisories:**
 - **Andhra Pradesh:**
 - Prevailing weather conditions (increase in day temperature and decrease in humidity) are congenial for the incidence of the dry root rot disease in oranges in the Scarce Rainfall Zone. Irrigate the entire basin initially followed by drenching of the entire basin with Carbendazim @ 2 g/litre of water to manage the incidence.
 - Due to rise in temperature and humidity, there is possibility of incidence of early shoot borer in 40-45 days sugarcane crop. To control, spray Chloripyriphos @ 2.5 ml/litre of water.
 - **Telangana:**
 - Incidences of leaf hoppers, aphids and thrips damage is observed in groundnut the Northern Telangana Zone due to prevailing temperature. Spray Monocrotophos @ 1.6 ml or Dimethoate 2.0 ml or Imidacloprid 0.4 ml/litre of water to manage the incidence.
 - Prevailing weather conditions are congenial for the incidence of leaf spots in leafy vegetables in the Southern Telangana Zone. To control, spray Carbendazim + Mancozeb (Saaf or Companion) @ 2g per litre of water.
 - **Karnataka:**
 - Continue sowing of water melon, planting of fodder crops in areas having irrigation facility and harvesting of safflower and wheat in the North East Transition Zone.
 - Continue sowing of cowpea and green gram and transplanting of bottle gourd and ridge under irrigated condition, complete harvesting of chickpea, wheat, sorghum and in the North Dry Zone and North East Dry Zone.
 - Undertake harvesting of chickpea, chilli, wheat and sorghum, continue planting of sugarcane\ and provide irrigation to sugarcane as per requirement in the North Transition Zone.
 - Continue sowing of Bt cotton in the North East Dry Zone with assured irrigation. Due to increase in day temperature, water melon plants are suffering from soil moisture stress. Apply irrigation to ensure sufficient soil moisture.
 - Due to increase of temperature, aphids in cow pea, powdery mildew in mango and increase in sucking pest in water melon were noticed in North East Dry Zone. Spray Dimethoate @ 2 ml/ litre of water to manage aphids, Difenconazole @ 1 ml/litre of water to manage powdery mildew and Imidacloprid 0.5 ml/litre of water to manage sucking pests.
 - **Kerala:**
 - As evaporation rates are high, irrigate rice fields at least once in 4 days in the High Altitude Zone. Use “Trichogramma”egg cards for reducing rice stem borer infestation. Apply 2.5 kg pseudomonas mixed with 50 kg cowdung for one hectare and avoid excess usage of nitrogen fertilizers to control blast and sheath rot

diseases. Undertake land preparation for planting of pepper and cultivation of ginger.

- Continue sowing of *puncha* rice in Vellayani district in the Southern Zone. Due to prevailing dry weather conditions, provide regular irrigation especially in irrigated coconut gardens through drip irrigation @ 50 litres /palm and flood irrigation @ 300 litres of water once in 5 days. Undertake mulching in banana basins to reduce temperature and conserve soil moisture.
- Due to rise in temperature and humidity, there is a chance of Sigatoka disease in banana in the Central Zone. Spray Dithane M-45 @ 3 g / litre of water on a non rainy day.
- Incidence of attack of case worm in rice is noticed due to prevailing hot weather condition in the Southern Zone. As a control measure, drain out the water from the rice fields and apply Carbaryl @ 4 g/ litre of water on a non rainy day.
- **Tamil Nadu:**
 - Continue nursery preparation of *navarai* rice and complete harvesting of matured *samba and thaladi* rice in the Cauvery Delta Zone. In rice fallow pulses, provide one irrigation during flowering stage under dry weather condition and continue sowing of sesame.
 - Prevailing high temperature will affect the germination of vegetable seeds in nursery in the Western Zone. Apply FYM after sowing as thin layer and keep coconut leaves to provide shading to have better germination.
 - Continue cultivation of cotton in the North Western Zone.
 - Moderate humidity and light rain is congenial for the incidence of wilt disease in tomato at vegetative to flowering stage and fruit rot disease in chilli at fruiting stage in the Southern Zone. Mix and apply 2.5 kg of Trichoderma Viride @ 1% WP in 150 kg of compost or Farm Yard Manure to manage wilt disease and spray Captan @ 75% WP @ 800g in 400 litres of water/ acre (or) Copper Oxochloride @ 50% WP @ 1000 g in 300-400 litres of water/ acre to manage fruit rot disease.
 - Suitable varieties are given in Annexure I.
- **Animal Husbandry**
 - Anthrax disease is noticed in some parts of the Northern Telangana Zone and Scarce Rainfall Zone of Andhra Pradesh. Vaccinate animals at the earliest.
 - Prevailing high temperature leads in stress in animals and poultry in the Western Zone of Tamil Nadu. Provide more green fodder and allow animals to graze during early morning and late evening hours.

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



Rice transplanting



Mustard



Potato



Cabbage

- **Realised Weather:** Rain/thundershowers has occurred at isolated places over Arunachal Pradesh, Assam & Meghalaya and weather remained dry over rest of the region. Minimum temperatures are above normal by 2-5°C at many places over Assam & Meghalaya; at a few places over Arunachal Pradesh; at isolated places over Nagaland, Manipur, Mizoram and Tripura.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over Arunachal Pradesh, Assam and Meghalaya on 3rd and 4th March; at isolated places on 5th, 6th and 7th March. Rain/thundershowers would occur at isolated places over Nagaland, Manipur, Mizoram and Tripura during next 3 days, dry weather would prevail during rest of the period.
- **Weather Warning:** Thunderstorm accompanied with squall would occur at isolated places over Assam & Meghalaya on 3rd and 4th March; over Nagaland, Manipur, Mizoram and Tripura on 3rd March.
- **Weather Outlook:** Rain / thunderstorm activity would occur at a few places over northeastern states.
- **Advisories:**
 - As thunderstorm accompanied with squall would occur at isolated places over Assam & Meghalaya on 3rd and 04th March and over Nagaland, Manipur, Mizoram and Tripura on 3rd March, provide mechanical support to banana and staking of vegetables to prevent the crops from lodging due to strong winds.
 - **Assam & Meghalaya, Arunachal Pradesh:**
 - In Assam, maintain 5cm of standing water in the field of *boro* rice.
 - In Assam & Meghalaya, normal sowing of summer crops and other agricultural operations are carried out under

normal weather conditions.

- In Meghalaya, taking advantage of expected rainfall, undertake land preparation for sowing of maize in High & Mid altitude region.
- In Meghalaya, due to humid weather, there is chance of attack of blast /brown spot disease in *boro* rice. Spray Carbendazim @ 1g/litre of water against blast/brown spot. Undertake plant protection measures on a non rainy day.
- In Lower Brahmaputra Valley Zone and North Bank Plain Zone of Assam, due to cloudy weather, there is chance of blast and sheath blight in *boro* rice. Spray Mancozeb @ 0.2% or Copper oxychloride @ 0.4% against blast and Carbendazim @ 0.05% against the sheath blight on a non rainy day.
- In Hill Zone of Assam, due to humid and cloudy weather, there is chance of blast spots in *boro* rice, spray Mancozeb 0.2% @2gm/litre or Ediphenphos 0.1% @1gm/litre of water for control of the disease.
- In Central Brahmaputra Valley Zone of Assam, due to cloudy weather, there is chance of occurrence of aphids in wheat. Apply Dimethoate (Rogor) @ 2 ml/litre of water on a non rainy day to control aphids in affected wheat fields.
- **Manipur, Mizoram, Nagaland and Tripura:**
 - In Nagaland, Manipur, Mizoram and Tripura, normal sowing of summer crops and other agricultural operations are carried out under normal weather conditions.
 - In Manipur, taking advantage of expected rainfall, continue nursery bed preparation of pre-*kharif* rice.
 - In Tripura, due to cloudy weather, there is chance of attack of yellow stem borer in *boro* rice, apply Fipronil @ 2g per litre of water to manage the attack.
 - In Manipur, due to cloudy weather, there is chance of attack of stem borer in maize, apply few granules of Carbofuradan 3G at maize whorl.
 - Suitable varieties are given in Annexure I.
- **Animal Husbandry**
 - In Tripura, vaccinate pigs against swine fever.

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



Sugarcane

Wheat

Rice transplanting

Onion

- **Realised Weather:** Rain/thundershowers has occurred at most places over Bihar; at a few places over Jharkhand, Sub-Himalayan West Bengal & Sikkim; at isolated places over Gangetic West Bengal and weather remained dry over rest of the region. Minimum temperatures are above normal by 2-5°C at a few places over Bihar, Sub-Himalayan West Bengal & Sikkim; at a few places over Odisha and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over West Bengal & Sikkim, Odisha, Bihar and Jharkhand on 3rd and at isolated places on 4th March; at isolated places over Odisha on 5th March also, dry weather would prevail during rest of the period. Dry weather would prevail over Andaman & Nicobar Islands during next 5 days.
- **Weather Warning:** Thunderstorm accompanied with hailstorm would occur at isolated places over Bihar, Jharkhand and Sub-Himalayan West Bengal & Sikkim on 3rd March.
- **Advisories:**
 - As thunderstorm accompanied with hailstorm would occur at isolated places over Sub-Himalayan West Bengal & Sikkim, Bihar and Jharkhand on 3rd March, farmers are advised to use hail nets for orchard crops to protect from mechanical damage. Also provide mechanical support to vegetables to prevent the crops from lodging due to strong winds.
 - **West Bengal:**
 - Undertake land preparation for sowing of sesame and mung in upland fields in Coastal Saline Zone.
 - In Old Alluvial Zone, continue harvesting of mustard, lentil and potato in clear weather.
 - In New Alluvial Zone of West Bengal, undertake land preparation for sowing of sesame and green gram.
 - In the prevailing humid weather condition, there is chance of incidence of blast in rice during tillering stage and tikka leaf spot in groundnut during vegetative stage in Laterite and Red Soil Zone of West Bengal. Apply Carbendazim @ 1g/litre of water and repeat at an interval of 10-15 days to control blast and Carbendazim

0.05% with an interval of 7-10 days to control tikka leaf spot.

- In Hill Zone, due to cloudy weather condition, there are chances of attack of aphids in French beans, butter beans and broad beans during its pod filling stage. To control aphids, spray Dimethoate @ 1.5ml/litre of water or Monocrotophos @ 2 ml/litre of water.

▪ **Andaman and Nicobar Islands:**

- In North, Middle and South Andaman, as dry weather is prevailing, apply irrigation to vegetables and undertake transplanting of the seedling of 30 days old brinjal and chilli.

▪ **Odisha:**

- In East and South Eastern Coastal Plain Zone of Odisha, complete sowing of maize by this week as late sowing of maize afterwards may reduce the yield due to high temperature during April and May.
- In North Eastern Plateau Zone of Odisha, continue sowing of sesame and green gram.
- In Western Undulating Zone of Odisha and Mid Central Table Land Zone of Odisha, due to rise in temperature coupled with humidity, attack of stem borer has been aggravated in rice. To control, spray Triazophos @ 2 ml/litre of water.
- In East and South Eastern Coastal Plain Zone and North Central Plateau Zone, high day and night temperature difference and humid weather may aggravate the infestation of blast in rice. Undertake spraying of Beam @ 1 g per litre water.
- In East and South Eastern Coastal Plain Zone of Odisha, high differential temperature between day and night favours the infestation of Blast in summer rice. Spray Tricychlazole @ 0.6 g or Ediphosphos @ 1 ml. in litre of water. Withhold top dressing of Urea for five days after the spraying.
- In East and South Eastern Coastal Plain Zone of Odisha, increased temperature may favour the egg laying of stem borer in rice in the main field. To attract the borer butterflies, place 4 Pheromon Traps/acre, collect the adults and destroy them by burying them under soil or by burning. Spray 2 ml Prophenophos per litre water.
- In Mid Central Table Land Zone of Odisha, due to increase in relative humidity coupled with rise in temperature, the attack stem borer has been aggravated in rabi rice. To control it, go for alternate spray of Fipronil @ 2 ml / l with Indoxacarb@1.5 ml/litre at 15days interval.
- In North Eastern Coastal Plain Zone of Odisha, due to variation in temperature, there is possibility of attack of Tobacco caterpillar (*Spodopteralitura*) in mustard. For control i) use Pheromone trap using *Spodo* lure to monitor adult population of the insect ii) bird perching should be encouraged and night fire should be widely popularized iii) in case of appearance of the caterpillar, prepare poison bait with 1 kg rice bran+ 200 g jaggery/gur+10 g Methomyl 40% SP+Water. Keep the bait at 20-25 different places in the affected field. iv) for severe infestation, spray Emamectin Benzoate @ 3 g/10 litres of water.

▪ **Bihar:**

- In South Bihar Alluvial Zone, as dry weather is prevailing, apply irrigation to onion and sugarcane. Complete harvesting of potato. Continue planting of sweet potato. Undertake harvesting of mustard.
- In North West Alluvial Plain Zone of Bihar, as dry weather is prevailing, apply irrigation to onion. Continue sowing of summer vegetables. Continue sowing of okra and land preparation for sowing of green gram/ black gram and maize.
- In North East Alluvial Zone of Bihar, as dry weather is prevailing, complete harvesting of potato.
- In North East Alluvial Zone of Bihar, rise in temperature along with prevailing humid condition will favour the incidence of stem borer in maize, apply Carbofuran 3G granules @ 25 kg/ha on a non rainy day.

▪ **Jharkhand:**

- In Western Plateau Zone, as dry weather is prevailing, continue sowing of mung and nursery sowing of cauliflower, cabbage, tomato, brinjal and chilli.
- In South Eastern Plateau Zone of Jharkhand, continue sowing of mung.
- In Central & North Eastern Plateau Zone of Jharkhand, as dry weather is prevailing, apply irrigation to wheat which is at heading to milk stage. Continue sowing of high yielding variety of summer maize with assured irrigation and planting of sugarcane. Continue sowing of okra.
- In Central & North Eastern Plateau Zone of Jharkhand, due to high humidity and fluctuation in temperature, there is chance of powdery mildew disease in mango/litchi, spray Kara then @ 1 ml or Sulfex @ 2 g per litre of water on a non rainy day.
- Suitable varieties are given in Annexure I.

• **Animal Husbandry**

- In Jharkhand, farmers are advised to vaccinate pigs against swine fever.
- In Bihar and Jharkhand, keep cattle/goats indoor during thunderstorm / hailstorm period.

CENTRAL INDIA [M.P., CHHATTISGARH]



Sugarcane



Wheat



Mustard



Onion

- **Realised Weather:** Thunderstorms have been observed at isolated places over West Madhya Pradesh between 0830 hours IST of yesterday to 0830 hours IST of today. Rain/thundershowers has occurred at many places over Chhattisgarh; at a few places over Madhya Pradesh. Minimum temperatures are below normal by 5-7°C at isolated places over West Madhya Pradesh. They are above normal by 2-5°C at isolated places over East Madhya Pradesh and near normal over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at a few places over West Madhya Pradesh and Chhattisgarh on 3rd March, at isolated places over East Madhya Pradesh on 3rd and over Chhattisgarh on 4th March, dry weather would prevail during rest of the period.
No significant change in minimum temperatures and maximum temperatures would rise by 3-5°C over Central India during next 2-3 days.
- **Weather Warning:** Nil.
- **Weather Outlook:** Isolated rain/thunderstorm would occur over plains of central India from 7th onwards.
- **Advisories:**
 - **Madhya Pradesh:**
 - In East Madhya Pradesh, due to heavy rain, there was waterlogging in wheat and barley fields, drain out excess water from the crop fields.
 - In Grid Zone and Satpura Plateau Zone, undertake harvesting of matured mustard in clear weather.
 - Undertake sowing/ transplanting of summer vegetables in Malwa Plateau Zone and Bundelkhand Zone under normal weather condition.
 - Undertake harvesting of matured gram in Jhabua Hill Zone in clear weather.
 - Undertake sowing of cucurbitaceous crops, okra, cowpea and harvesting of matured potato and pea in Kymore Plateau Zone under normal weather condition.
 - Due to cloudy weather; there are chances of attack of fruit and shoot borer in tomato and brinjal crops in Bundelkhand Zone, spray Melathion 50 E.C. @ 1.0 ml per litre of water on a non rainy day.
 - Due to cloudy weather there are chances of attack of gram pod borer in Jhabua Hill zone and Vindya Plateau Zone, spray Profenofos + Cyper Methrin @ 1.0 to 1.250 litre/ha with 500-600 litre of water on a non rainy day.
 - **Chhattisgarh:**
 - Undertake sowing/ transplanting of summer crops in Bastar Plateau Zone and in North Hill Zone of Chhattisgarh under normal weather condition.
 - Undertake harvesting of matured mustard and potato in North Hill Zone in clear weather.
 - Due to cloudy weather, there are chances of attack of stem borer in summer rice in Plain Zone of Chhattisgarh, spray granular insecticides like Carbofuran @ 33 kg/ha or Cartap @ 20 kg/ha on a non rainy day.
- **Animal Husbandry**
 - Provide concentrate feed to cattle mixed with dry and green fodder and enrich the diet with protein, carbohydrate, fat, vitamins etc. in Madhya Pradesh.

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



Wheat



Sugarcane



Mustard



Cabbage

- **Realised Weather:** Thunderstorms have been observed at isolated places over Uttarakhand, Punjab, Haryana, Delhi and Uttar Pradesh between 0830 hours IST of yesterday to 0830 hours IST of today. Rain/snow has occurred at most places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand. Rain/thundershowers has occurred at many places over Uttar Pradesh; at a few places over Punjab, Haryana & Delhi; at isolated places over East Rajasthan and weather remained dry over rest of the region. Minimum temperatures are below normal by 2-4° C at a few places over Jammu & Kashmir, Himachal Pradesh and West Rajasthan; at isolated places over Uttarakhand, Haryana & Delhi and East Rajasthan. They are above normal by 2-5°C at many places over East Uttar Pradesh; at a few places over Punjab and near normal over rest of the region.
- **Weather Forecast:** Rain/snow would occur at many places over Jammu & Kashmir on 3rd and 6th March, at a few places on 4th, 5th and 7th March. Rain/snow would occur at many places over Himachal Pradesh on 3rd March, at a few places on 6th March and at isolated places on 4th, 5th and 7th March. Rain/snow would occur at many places over Uttarakhand on 3rd March and at isolated places on 4th, 6th and 7th March, dry weather on 5th. Rain/thundershowers would occur at a few places over Haryana & Delhi, Uttar Pradesh on 3rd March and at isolated places on 4th March, dry weather would prevail during rest of the period. Rain/thundershowers would occur at a few places over Punjab on 3rd March and at isolated places on 4th and 6th March, dry weather would prevail during rest of the period. Rain/thundershowers would occur at isolated places over Rajasthan on 3rd March, dry weather would prevail during rest of the period
No significant change in minimum temperatures and maximum temperatures would rise by 3-5°C over Northwest India during next 2-3 days.
- **Weather Warning:** Heavy rain/snow would occur at isolated places over Jammu & Kashmir, Himachal Pradesh and Uttarakhand on 3rd March.
- **Weather Outlook:** A fresh western disturbance as an upper air system would affect western Himalayan region from 7th and likely to cause scattered precipitation over the region. Isolated rain/thunderstorm would occur over plains of northwest India from 7th onwards.
- **Advisories:**
 - As rain/snow would occur at many places over Jammu & Kashmir on 3rd & 6th March, over Himachal Pradesh and Uttarakhand on 3rd, along with heavy rain/snow fall at isolated places on 3rd March, postpone irrigation, intercultural operation and application of plant protection measures and fertilizers to the standing crops. Postpone harvesting of crops and keep already harvested crops at safe places. Provide adequate drainage in standing crops to avoid water stagnation.
 - **Jammu & Kashmir:**
 - In Valley Temperate Zone of Jammu & Kashmir, continue nursery sowing of tomato, cauliflower, cabbage, knol khol, kale after current spells of heavy rain/snow.
 - In Sub Tropical and Intermediate Zone of Jammu & Kashmir, drain out excess water from wheat, pulses and vegetable fields.
 - Continue harvesting of Chinese cabbage, palak, pakchoi and lettuce and undertake direct seed sowing of turnip, coriander and radish in Green Houses in Cold Arid Zone of Jammu & Kashmir.
 - **Uttarakhand:**
 - Continue land preparation and sowing of moong and continue sowing of chickpea, rajmash, lentil, okra, planting of sugarcane and transplanting of onion in Bhabar and Tarai Zone of Uttarakhand after current spells of heavy rain/snow.
 - In Hill Zone of Uttarakhand, continue land preparation for planting of potato, continue nursery sowing of tomato, brinjal and capsicum.
 - Due to humid weather, there may be incidence of yellow rust on wheat in Sub humid sub tropic Zone of Uttarakhand; for control, spray Propiconazole 25 EC (Tilt 25 EC) @ 0.1% after current spells of rain.
 - Due to humid and cloudy weather, there is chance of mealy bug infestation in mango plant in Sub humid sub tropic Zone of Uttarakhand. To control the insect, dust Methyl Parathion 2% @ 250 g per tree in the soil around the trunk after current spells of rain.
 - **Rajasthan:**
 - In Southern Humid Plain Zone, Aravali Hill Zone of Rajasthan, carry out normal sowing of summer crops (viz. groundnut, moong and maize) and other agricultural operations under normal weather conditions.
 - In Flood Prone Eastern Plain Zone of Rajasthan undertake sowing of cucurbitaceous vegetables like melon, bottle gourd, ridge gourd, bitter gourd, pumpkin and smooth gourd etc.
 - Undertake sowing of zaid moong in Transitional Plain Zone of Inland Drainage of Rajasthan, utilizing the realized rainfall.
 - In Sub Humid Southern Plain and Aravali Hill Zone of Rajasthan, weather condition is congenial for attack of termites in wheat and barley, the control spray of solution of Chloropyriphos 20EC @ 2 litres/ha with irrigation water
 - In Arid Western Zone of Rajasthan, as there was rain, so temperature may decrease such weather conditions may promotes the white rust disease in late sown mustard. To prevent the disease, spray the Ridiomil MZ @ 2 gm/lit water.

▪ **Himachal Pradesh:**

- Undertake sowing of sunflower in low and mid-hill areas and sowing of okra, French bean, cucumber, summer squash, bitter gourd, bottle Gourd in low hill areas and nursery raising of high yielding varieties of tomato, brinjal, chilli and capsicum in mid hill areas of Sub-Montane and Low Hills Sub-Humid Tropical Zone after current spells of heavy rain/snow.
- Due to humid weather condition, there is chance of powdery mildew in wheat in Sub-Montane and Low Hills Sub-Humid Tropical Zone. Spray Hexaconazole @ 1ml per litre of water after current spells of rain and repeat the spray after 15 days interval.
- Due to cloudy weather, 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:**

- In Haryana & Delhi, harvest matured mustard at the earliest.
- In Western Semi-Arid Zone of Delhi, continue sowing of ladies finger, cucurbitaceous crops and nursery sowing of vegetables like chilli, tomato and brinjal utilizing the realised rainfall.
- Continue planting of sugarcane in Western Plain Zone of Punjab utilizing the realised and expected rainfall.
- In Western Zone of Punjab, prepare the field for transplanting of summer vegetables viz. chilli, tomato and bell pepper, undertake sowing of cucumber, bottle gourd, pumpkin, muskmelon, watermelon, bitter gourd in plastic trays or polythene bags utilizing the realised rainfall.
- In Western Zone of Haryana, continue transplanting of young seedlings of tomato and chilli utilizing the realised rainfall.
- Prevailing humid weather is conducive for severe attack of aphids in mustard in Western Plain Zone of Punjab and Western Zone of Haryana; monitor the crop regularly and spray Actara 25 WG @ 40g /acre on a non rainy day.
- Cloudy weather condition is favourable for yellow rust in wheat crop in Central Plain Zone, Undulating Plain Zone of Punjab and Western Semi-Arid Zone of Delhi. 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.

▪ **Uttar Pradesh:**

- In Uttar Pradesh, harvest matured mustard at the earliest.
- In Central plain Zone, Eastern Plain Zone and Bundelkhand Zone of Uttar Pradesh, undertake normal sowing of summer crops and other agricultural operations under normal weather conditions.
- Under humid weather condition, there is chance of attack of fruit borer and semi-looper in gram in Bundelkhand Zone. For control, spray Malathion 50 EC @ 2 litre/ha in 500-600 litres of water. For control of *Alternaria* blight in mustard, spray, Mancozeb or Zineb @ 2kg or Copper Oxychloride @ 3kg in 600-750 litres of water.
- Under humid weather and favourable temperature (24°C) 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 Chloropyrifos @ 0.5 ml or Imidachloprid @ 1.5 ml per litre of water/ha.
- Under prevailing humid weather condition there is chance of late blight in potato in Northeastern Plain Zone. Spray Ridomil mz @ 0.2 g + Copper oxichloride @ 0.1 g per litre of water.
- Under prevailing dry weather condition, there is chance of fruit borer in gram, lentil and peas in Western Plain Zone. Spray Monocrotophos @ 0.5 ml per litre of water.
- Suitable varieties are given in Annexure I.

• **Animal Husbandry**

- In Jammu & Kashmir and Himachal Pradesh, keep cattle/goats indoor during heavy rainfall period.

WEST INDIA [GOA, MAHARASHTRA, GUJARAT]



Banana



Sugarcane



Sorghum



Mango

- **Realised Weather:** Thunderstorms have been observed at isolated places over Vidarbha between 0830 hours IST of yesterday to 0830 hours IST of today. Rain/thundershowers has occurred at isolated places over Vidarbha and weather remained dry over rest of the region. Minimum temperatures are below normal by 5-7°C at isolated places over Konkan & Goa and Madhya Maharashtra; by 2-4° C at many places rest Konkan & Goa, rest Madhya Maharashtra and Marathwada; at a few places over Gujarat.

- **Weather Forecast:** Rain/thundershowers would occur over Vidarbha on 3rd March, dry weather would prevail during rest of the period. Dry weather would prevail over the rest parts of the region during next 5 days. No significant change in minimum temperatures and maximum temperatures would rise by 3-5°C over West India during next 2-3 days.
- **Weather Warning:** Nil.
- **Advisories:**
 - **Maharashtra:**
 - In Konkan, rainfall occurred at most places on 1st and 2nd March and weather would remain dry during next 5 days. Due to untimely rain there was fruit dropping in mango and cashew orchard, collect dropped fruits and infested leaves and branches and destroy. To avoid further spread of pest and disease clean the orchards. Maintain water level upto 5 cm at early tillering stage of summer rice and finger millet. Make shed, to protect the cashew, arecanut and mango grafts from bright sunshine. As dry weather is prevailing, harvest matured summer okra and watermelon fruits.
 - In Madhya Maharashtra, rainfall occurred at most places on 1st and 2nd March and weather would remain dry during next 5 days. Drain out excess water from wheat crop in Western Ghat region. Due to sudden drop in minimum temperature, there may be fruit cracking in grapes, apply light irrigation. To protect fig and banana from cold apply light irrigation (if possible apply well irrigation). Due to rain there was lodging of matured jowar, wheat. Farmers are advised to harvest matured crop at the earliest.
 - In Marathwada, rainfall occurred at most places on 1st and 2nd March and weather would remain dry during next 5 days. Due to rain crop damage in matured jowar, wheat and gram is expected due to lodging. Harvest matured crop at the earliest. As minimum temperature is prevailing below normal, to protect the banana from cold apply light irrigation in the evening.
 - In Vidarbha, rainfall occurred at most places on 1st and 2nd March and rain/thundershowers would occur at isolated places during next 24 hours and weather would remain dry thereafter. Due to rain and squally wind, there was lodging in wheat and banana. Harvest matured wheat during sunny hours at the earliest to avoid the sprouting. Provide mechanical support to banana plant. Due to untimely rain there was fruit dropping in orange, collect dropped fruits and infested leaves and branches and destroy. To avoid further spread of pest and disease clean the orchards. Maintain upto 5 cm water level in summer rice field (vegetative/ early tillering) in east Vidarbha.
 - Due to cloudy and humid weather conditions, there may be incidence of anthracnose on inflorescence and developing mango fruits in Konkan, spray Carbendazim @ 1 g + Mancozeb @ 0.5 g per 1 litre of water on whole tree.
 - Due to rain and cloudy weather conditions, there may be incidence of powdery mildew in mango and vegetables in Madhya Maharashtra, spray sulphur 80% WS at @ 20 g per 10 litres of water, if infestation is low. If infestation is more spray Carbendazim @ 10 g per 10 litres of water.
 - **Gujarat:**
 - Complete sowing of groundnut and bajra, continue sowing of sesame and undertake sowing of green gram and cowpea in North Gujarat Zone.
 - Continue transplanting of rice, complete sowing of green gram and undertake sowing of cowpea under assured irrigation in South Gujarat Heavy Rainfall Zone. Apply irrigation in garlic at bulb development stage. Complete harvesting of tomato.
 - Complete harvesting of matured mustard, castor and picking of cotton bolls in North West Zone. Continue sowing of groundnut and bajra.
 - Undertake sowing of vegetable crops (okra, cluster bean and cowpea) in Bhal and Coastal Zone of Gujarat. Complete harvesting of wheat and mustard crop and keep already harvested produce at safe places In Middle Gujarat Zone.
 - In North Saurashtra Zone, complete harvesting of wheat crop and transplanting of brinjal.
 - Due to cloudy weather, there are chances of mango hopper in mango orchard in South Gujarat Heavy Rainfall Zone; spray the mango orchard with Imidacloprid @ 4 to 5 ml per 10 litres of water or Monocrotophos @ 11 ml per 10 litres of water for control.
 - Due to increase in temperature thrips infestation is observed above ETL in groundnut in North Saurashtra Zone; to control, spray Profenophos @ 20 ml in 10 litres of water.
 - Suitable varieties are given in Annexure I.
 - **Animal Husbandry**
 - Arrange for adequate amount of fresh drinking water for cattle, provide nutritive food to cattle, cover the poultry house with cloth / plastic sheets to protect the poultry birds from cold wind during night in Gujarat.

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:

Irrigated sesame: TMV 4, TMV 6 and SVPR1
Cotton: MCU-5, Surabhi and SVPR-2

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

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
Pumpkin: Rajendra Chamatkar, Pusa samar prolific long and pusa samer prolific
Sponge gourd: Rajendra nanua-1, Pusa chikni, Pusa priya, Kalyanpur chikni, DL-11
Bitter gourd: Pusa Do mausmi, Pusa Vivesh, Arka Harit, Koyambatoor long, Kalyanpur Barahmasi, Pant kerila
Moong: Pusa Vishal, Samrat, SML-668, Sona varieties are recommended for moong
Urd: Pant U-19 and Pant U-31, Ultra and Type-9 for Urd.
Maize: Suwan, Deevki, Ganga-11, Shaktiman-1 and Shaktiman-2

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)
Green gram: mung S.M.L.- 668
Sugarcane: BO 147
Okra: Improved varieties – Pusa A - 4, Prabhani Kranti, Arka Anamika, Versha Uphar & Hybrid varieties –Sonal and Sarika

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
Moong: Pant Moong-2, Pant Moong-4, Pant Moong-5, Pant Moong-6, Narendra Moong-1

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

Maize: Navjyoti, Kanchan, Gaurav, Surya, Navin, Shweta, Azad Uttam,Prakash, Deccan-115, MMH-135, Ganga-11, Pusa, Maize-2, JH-3459

Urd: T-9, Narendra-1, Azad-1, Uttar Azad-2, Shekhar-2

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, 4 and GG-20, TAG-24, TG-37-A, TPG-41,GG-2, GJG-3.

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

Cowpea: Guj. Cowpea-4, 5 and Pusa Falguni.

Green gram: Guj. Mung-3, 4.

Brinjal: Junagadh oblong, Junagadh long, Guj. Bringle-2.

Lady' finger: Guj. Hy.-1 & 2.

Ridge gourd: Pusa nasdar, Jaipuri.

Bottle gourd: Junagadh tender long, Pusa summer prolific long.

Sponge Gourd: Pusa chikni.

Bitter Gourd: Priya, Pusa domosmi.

Cluster bean: Pusa sadabahar, Pusa navbahar, IC-11388.

Watermelon: Sugar baby, Arka jyoti.