

# National Agromet Advisory Service Bulletin

**Tuesday 14<sup>th</sup> October 2014**  
**(For the period 14<sup>th</sup> to 17<sup>th</sup> October 2014)**



**Issued by**

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



## Salient Advisories

The Depression over east Uttar Pradesh and neighbourhood moved in north - northwesterly direction during past 6 hours and lay centered at 1430 hours IST of 14<sup>th</sup> October 2014 over east Uttar Pradesh and neighbourhood close to north of Fursatganj. It would move north – northeastwards and weaken into a well marked low pressure area during next 6 hours. Due to this, rainfall would occur at most places with heavy (6.5–12.4 cm) to very heavy falls (12.5–24.4 cm) at isolated places over east Uttar Pradesh, Bihar, Sub-Himalayan West Bengal and Sikkim during next 24 hours. Squally wind speed reaching 30-40 kmph gusting to 50 kmph would prevail upto 50 km around system centre, which includes areas of east Uttar Pradesh during next 6 hrs.

Due to the cyclone 'HUDHUD', rain/thundershowers has occurred at most places over East Uttar Pradesh, East Madhya Pradesh, north Chhattisgarh, Jharkhand, Bihar, Odisha, Andhra Pradesh and East Vidarbha alongwith high winds. In view of this, the following advisories are suggested:

### **Coastal Andhra Pradesh:**

- Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
- Provide mechanical support for affected sugarcane and banana crops due to high winds.
- Postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.

### **Odisha :**

In Ganjam, Gajapati, Koraput, Rayagada, Puri, Cuttuck, Nabarangpur, Phulbani, Balasore, Bhadrak, Malkangiri and Jajpur districts:

- Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
- Provide mechanical support for affected sugarcane and banana crops to prevent lodging due to high winds.
- Postpone irrigation, intercultural operation, application of fertilisers and plant protection measures in standing crops.

### **Jharkhand**

- Arrange for extensive drainage facilities to remove excess water from rice fields.

### **Telengana**

- Arrange for extensive drainage facilities to remove excess water from soyabean and maize fields.
- Provide mechanical support for affected sugarcane crop due to high winds.

### **Chhattisgarh**

- Arrange for extensive drainage facilities to remove excess water from of standing crops.

### **Bihar**

- Arrange for extensive drainage facilities to remove excess water from of standing crops.
- Provide mechanical support for affected sugarcane due to high winds in East and West Champaran districts.

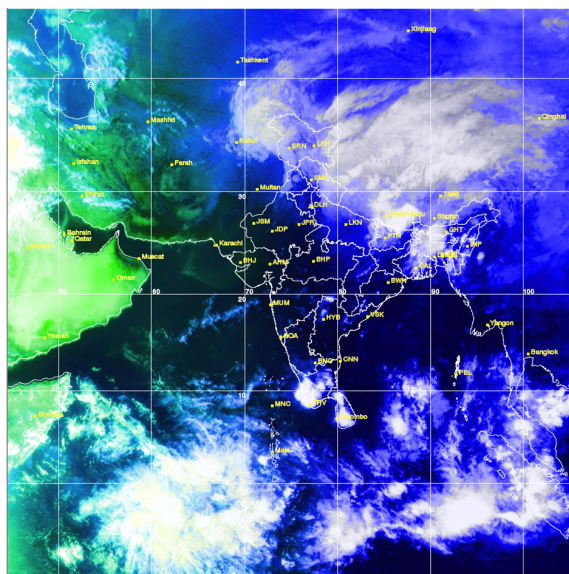
### **East Uttar Pradesh**

- Provide mechanical support for affected sugarcane due to high winds in Deoria, Maharajganj and Gorakhpur districts.
- Arrange for extensive drainage facilities to remove excess water from of standing crops.

### **East Madhya Pradesh**

- Arrange for drainage in soyabean, green gram and black gram.

Satellite image dated, 14.10.2014, 1215 UTC



### Other Salient Advisories

- Continue land preparation for sowing of *rabi* crops like sunflower, horse gram (PHG-9), sesame, cowpea, chickpea, wheat and maize in the North Dry Zone of **Karnataka**.
- In Lower Brahmaputra Valley Zone of **Assam**, undertake sowing of onion and land preparation for planting of potato. Transplant the 25-30 days old seedlings of cole crops in the main field.
- In Sub-Tropical Zone of **Jammu & Kashmir** continue sowing of ghobi sarson with toria as mixed or intercrop and nursery raising of cole crops and onion. Continue sowing of root crops like radish, carrot, turnip.
- 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 and planting of potato.

### Detailed Zonewise Agromet Advisories

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



Rice



Sugarcane



Cotton



Soybean

- **Realised Weather:** Rain/thundershowers occurred at a few places over Kerala and Tamil Nadu. Dry weather prevailed over remaining parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at many places over Kerala during next 48 hours and decrease thereafter; rain/thundershowers would occur at isolated places over Coastal Andhra Pradesh during next 48 hours and increase thereafter. Rain/thundershowers would occur at a few places over Tamil Nadu and after 24 hours over South Interior Karnataka and Coastal Karnataka.
- **Weather Warning:** Nil.

- **Weather Outlook:** Rain/thundershower would occur at many places over south Peninsular India.
- **Advisories:**
  - **Karnataka:**
    - Continue land preparation for sowing of *rabi* crops like sunflower, horse gram (PHG-9), sesame, cowpea, chickpea, wheat and maize in the North Dry Zone of Karnataka.
    - Continue land preparation and sowing of *rabi* sunflower in Central Dry Zone; maize, 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 rainfall.
    - Due to prevailing cloudy weather conditions, leaf miner attack may occur on groundnut and soybean in North Transition Zone, spray Carbaryl 50WP @ 0.2% or Dimethoate 30 EC @ 2 ml per litre of water on a non rainy day.
    - In the Southern Transition Zone of Karnataka, in the prevailing temperature, blast and sheath blight is noticed on rice and likely to spread. Spray Tricyclozole @ 0.6 g/litre of water or Carbandazim @ 1g/litre of water for control of blast and spray Hexaconozol @ 1 ml/litre of water for sheath blight on a non rainy day.
  - **Kerala:**
    - Continue nursery sowing of rice in the Northern and in Southern Zones of Kerala. Continue planting of *Nendran* banana in the Southern Zone of Kerala.
    - In the prevailing weather conditions, there is chance of sheath blight occurrence on rice fields where the plant population is high in the Problem Area Zone of Kerala. Remove the severely affected plants and provide air circulation into the crop canopy to reduce the spread of the disease to the nearby plants.
  - **Andhra Pradesh:**

Due to the cyclone 'HUDHUD', rain/thundershowers has occurred at most places over Andhra Pradesh along with high winds. In view of this, the following advisories are suggested for South & North Coastal Andhra Pradesh:

    - Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
    - Provide mechanical support for affected sugarcane and banana crops due to high winds.
    - Postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
    - In Scarce Rainfall Zone of Rayalaseema, due to attack of thrips, fruit and flower drop incidence was observed on cotton in few mandals of Anantapuram district. For the control spray of Acetamiprid @ 0.2g/litre of water.
    - Present hot weather is congenial for leaf spot attack on groundnut in Southern Zone of Rayalaseema. Spray Hexaconozole @ 2 ml per litre of water.
  - **Telangana:**
    - Prevailing hot and humid weather conditions are congenial for incidence of leaf spot disease on cotton and stem borer on rice in Southern Zone of Telangana. For control, spray Copper-Oxy-Chloride @ 30g + Plantamycin @ 2g in 10 litres of water for leaf spot diseases and Cartap Hydrochloride @ 2 g or Chlorantraniliprole @ 0.4 ml per litre of water for stem borer.
    - 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.
  - **Tamil Nadu:**
    - Continue harvesting of matured *kuruvai* rice and sowing and transplanting of *samba* rice / nursery sowing of *thaladi* rice in the Cauvery Delta Zone of Tamil Nadu.
    - In the Western Zone of Tamil Nadu, undertake sowing of dry land crops like sorghum and ragi and sowing of small onion in the North Western Zone of Tamil Nadu.
    - Undertake sowing of cotton, maize, pulses and sorghum under dry land conditions in the Southern Zone of Tamil Nadu.
    - 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 @ 2ml in one liter of water on a non rainy day.
    - Suitable varieties are given in Annexure I.
  - **Animal Husbandry**
    - In Coastal Andhra Pradesh, keep animals indoor at safe places during the cyclonic storm period.
    - Provide clean and hygienic water to animals and vaccinate against FMD in the Problem Area Zone of Kerala.
    - Present weather conditions are favourable for respiratory infections affecting mainly sheep and goat in North Western Zone of Tamilnadu. To prevent such illness, keep the sheds clean and dry. To prevent cold wind entering into the animal's house, place curtains on the open sided wall of the house. Do not allow any water stagnation around the farm and protect young kids from wetting due to rain.

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



*Rice*



*Okra*



*Cole Crops (Nursery)*



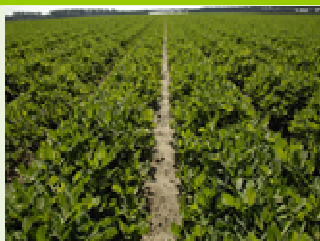
*Green Gram*

- **Realised Rainfall:** Rainfall occurred at a few places over Mizoram and Tripura and at isolated places over Assam & Meghalaya. Mainly dry weather prevailed over rest of Northeast India.
- **Weather Forecast:** Rain/thundershowers would occur at many places over northeastern states except over Arunachal Pradesh where rain is likely at a few places during the period.
- **Weather Warning: 15 October:** Heavy rainfall would occur at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. **16 October:** Heavy rainfall would occur at isolated places over Nagaland, Manipur, Mizoram & Tripura..
- **Weather Outlook:** Rain/thundershowers would occur at a few places over northeastern states.
- **Advisories:**
  - **Assam & Meghalaya, Arunachal Pradesh:**
    - In Lower Brahmaputra Valley Zone of Assam, undertake sowing of onion and land preparation for planting of potato. Transplant the 25-30 days old seedlings of cole crops in the main field.
    - In Barak Valley Zone, continue transplanting of early cauliflower and cabbage, knol khol.
    - In Central Brahmaputra Valley Zone of Assam, sowing of cole crops and early radish may be continued. Continue weeding and thinning in sesame. Nursery sowing of winter brinjal (Pusa Kranti, Pusa Purple Long, Pusa Purple Cluster, Pusa Bhairav, JC-2, BWR-12) may be continued. Continue land preparation for sowing of rabi pulses and oilseeds.
    - In Upper Brahmaputra Valley Zone of Assam, continue nursery sowing of *rabi* vegetables.
    - In Arunachal Pradesh, continue harvesting of early transplanted *kharif* rice.
    - In the prevailing hot weather condition, attack of stem borer in *Sali* rice has been observed in Lower Brahmaputra Valley Zone of Assam which is likely to increase. Spray 0.02% Chloropyriphos 20 EC or 0.025% Quinalphos 25 EC to control the pests after current spells of rain.
    - 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.
    - In Meghalaya, maintain water level of 3-5 cm in transplanted *Sali* rice. Conserve water by repairing bunds. Transplanting of cabbage, cauliflower and broccoli and sowing of carrot, radish and French bean may be completed. In ginger and turmeric, undertake hand weeding followed by fertilizer application, earthing up and mulching. Land preparation and sowing of peas and planting of potato and peas may be continued.
    - Due to cloudy weather & high humidity, there is chance of incidence of blast in *kharif* rice in Meghalaya. Spray Mancozeb @ 2g/litre or Carbendazim @ 1g/litre after current spells of rain. Also humid weather is congenial for development of late leaf spot in groundnut. Spray Carbendazim (0.05%) + Mancozeb (0.2%) after current spells of rain.
  - **Nagaland, Manipur, Mizoram and Tripura:**
    - In Manipur, maintain water level of 5cm upto dough stage in *kharif* rice. Continue transplanting of cole crops.
    - In Mizoram, continue nursery preparation for cole crops like cabbage, cauliflower, broccoli and knolkhol.
    - In Mild Tropical Plain Zone of Tripura, continue harvesting of *jhum* rice and banana and transplanting of winter vegetable particularly cauliflower, cabbage, radish, brinjal. Continue land preparation for planting of potato.
    - In Nagaland, continue nursery sowing of cabbage.
    - In Mizoram, weather is congenial for attack of stem borer, gundhi bug and leaf blast in rice, spray Monocrotophos @ 20 ml/10 litres water or Imidacloprid @ 20 ml/10 litres of water against stem borer. Spray Monocrotophos 36 WSC @ 1.5 ml/litre of water against gundhi bug. Spray Triclozole (Beam) @ 0.5 g/litre against leaf blast after current spells of rain.
    - In Manipur, prevailing hot weather is conducive for tikka disease in groundnut, spray Carbendazim @ 0.5g / litre of water after current spells of rain.
    - In Tripura, prevailing humid weather is conducive for attack of gundhi bug in short duration *aman* rice. To manage the attack by applying Cypermethri + Propenophos @ 1.5 ml per liter of water or Cartap Hydrochloride (Dollar) @1.5 g per litre of water after current spells of rain. Also there is chance of rice blast in long duration *aman* rice, spray Benlate or Mancozeb @ 0.25% after current spells of rain.
    - Suitable varieties are given in Annexure I.

- **Animal Husbandry**

- In Tripura, the present weather condition is favourable for infestation of round worm, flukes and tapeworms. De-worming may be done under recommendation and supervision of authorized practitioner.
- In Manipur, provide clean drinking water to livestock.

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



*Sugarcane*

*Groundnut*

*Onion*

*Rice*

- **Realised Rainfall:** Rain/thundershowers has occurred at most places over Gangetic West Bengal; at many places over Bihar; at a few places over Odisha; at isolated places over Jharkhand. Weather remained dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most / many places over Bihar and Jharkhand during next 48 hours and decrease thereafter. Rain/thundershowers would occur at isolated places over Odisha during next 48 hours and increase thereafter. Rain/thundershowers would occur at a few places over Gangetic West Bengal during the period. Rain/thundershowers would occur at a few places over Sub-Himalayan West Bengal & Sikkim and decrease thereafter.
- **Weather Warning:** Heavy to very heavy rainfall at isolated places would occur over Bihar and heavy rainfall would occur at isolated places over Sub-Himalayan West Bengal & Sikkim on 14<sup>th</sup> October 2014.
  - **Weather Outlook:** Rain/Thundershower would occur at a few places over east India.
  - **Advisories:**
- **West Bengal:**
  - As rain/thundershowers would occur at many places over Gangetic West Bengal on 12<sup>th</sup> October, postpone irrigation, inter-cultural operations and application of fertilizers and plant protection measures in standing crops.
  - In New Alluvial Zone of West Bengal, keep 2-3 cm water in *aman* rice fields at the time of panicle initiation stage.
  - In Terai Zone, continue transplanting of early cabbage, cauliflower.
  - In Laterite and Red Soil Zone, continue harvesting of upland rice in clear weather.
  - Due to hot and humid weather, there is a chance of spread of sheath blight and attack of stem borer in *aman* rice in New Alluvial Zone of West Bengal. Spray Carbendazim @ 1.5 g/litre of water for control of sheath blight and in case of stem borer attack, spray Carbosulfan 25 EC @ 2ml/ litre or Profenphos 40% + Cypermethrin 4% @ 1ml/ litre of water on a non rainy day.

Due to the cyclone 'HUDHUD', rain/thundershowers has occurred at most places over Jharkhand, Bihar and Odisha along with high winds. In view of the above the following agromet advisories are suggested:

- **Odisha:**
  - Arrange for extensive drainage facilities to remove excess water from rice fields and maintain 5-7 cm water. Provide adequate drainage channels in the fields of standing crops.
  - Provide mechanical support for affected sugarcane and banana crops to prevent lodging due to high winds.
  - Postpone irrigation, inter-cultural operation, application of fertilisers and plant protection measures in standing crops.
- **Jharkhand**
  - Arrange for extensive drainage facilities to remove excess water from rice fields.
- **Bihar:**
  - Arrange for extensive drainage facilities to remove excess water from rice fields.
  - Arrange for drainage in the standing crops.
  - Provide mechanical support for affected sugarcane due to high winds in East and West Champaran districts.

## CENTRAL INDIA [M.P., CHHATTISGARH]



*Sugarcane*



*Rice*



*Okra*



*Onion*

- **Realised Rainfall:** Rain/thundershowers has occurred at most places over East Madhya Pradesh and north Chhattisgarh and at isolated places over West Madhya Pradesh and south Chhattisgarh.
- **Weather Forecast:** Rain/thundershowers would occur at many places over East Madhya Pradesh and Chhattisgarh during next 24 hours and decrease thereafter. Rain/thundershowers would occur at a few places over West Madhya Pradesh during next 24 hours and decrease thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**

Due to the cyclone 'HUDHUD', rain/thundershowers has occurred at most places over East Madhya Pradesh and north Chhattisgarh along with high winds. In view of this, the following advisories are suggested:

- **East Madhya Pradesh**
  - Arrange for drainage in soyabean, green gram and black gram.
- **Chhattisgarh**
  - Arrange for extensive drainage facilities to remove excess water from rice fields.
  - Arrange for drainage in the standing crops.
- **Advisories for rest of the region:**
- **Madhya Pradesh:**
  - Continue sowing of sarson saag, radish, spinach and coriander in Bundelkhand Zone of Madhya Pradesh.
  - Undertake sowing of green pea, toria and mustard in Kymore Plateau Zone and Bundelkhand Zone of Madhya Pradesh under optimum residual soil moisture condition.
  - Continue nursery sowing of winter vegetables like tomato, chilli, brinjal, cauliflower, cabbage, capsicum and planting of early varieties of potato and green peas in Jhabua Hill Zone, Malwa Plateau Zone and Vindhya Plateau Zone of Madhya Pradesh.
  - As mainly dry weather would prevail continue harvesting of early variety of soybean in Malwa Plateau Zone and of matured soybean, urad, moong and vegetables in Jhabua Hill Zone, Vindhya Plateau Zone and Nimar Valley Zone of Madhya Pradesh.
  - As mainly dry weather would prevail, apply irrigation in maize and cotton in Jhabua Hill Zone, in rice in Grid Zone and in vegetables in Kymore Plateau Zone of Madhya Pradesh.
  - Due to humid weather there are chances of attack of fruit borer in urad and moong in Grid Zone of Madhya Pradesh, spray Dimethoate @ 1.5ml per litre of water.
  - Due to hot and humid 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:**
  - Undertake harvesting of moong, urad, soybean and matured rice in Plain Zone of Chhattisgarh in clear weather. Undertake land preparation for sowing of *rabi* crops like gram, lentil, linseed, toria, mustard, potato, pea and wheat (rainfed).
  - Due to humid weather, there are chances of leaf curling disease in chilli in Chhattisgarh Plain Zone, for control spray Methyl Dematon or Karathone @ 1ml per litre of water on non rainy day.
  - 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 Rainfall:** Rain/thundershowers has occurred at most places over East Uttar Pradesh; at many places over West Uttar Pradesh, Himachal Pradesh, Uttarakhand and at isolated places over Punjab, Haryana & Delhi, East Rajasthan. Weather remained dry over rest of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most / many places over East Uttar Pradesh and Uttarakhand; at a few places over Himachal Pradesh and Jammu & Kashmir during next 48 hours and decrease thereafter. Either isolated rain or dry weather is likely to prevail over rest of the region.
- **Weather Warning:** Heavy to very heavy rainfall at isolated places would occur over East Uttar Pradesh on 14<sup>th</sup> October 2014.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**

Due to the cyclone 'HUDHUD', rain/thundershowers has occurred at most places over **East Uttar Pradesh**, along with high winds. In view of this, the following advisories are suggested:

  - Provide mechanical support for affected sugarcane due to high winds in Deoria, Maharajganj and Gorakhpur districts.
  - Arrange for extensive drainage facilities to remove excess water from rice fields.
  - Arrange for drainage in the standing crops.
- **Advisories for other regions**
  - **Jammu & Kashmir:**
    - Continue harvesting of rice and maize in Intermediate Zone of Jammu & Kashmir. Also continue nursery sowing of cauliflower, cabbage, raddish and knoll khol in Intermediate Zone of the region utilizing the realized rainfall.
    - In Sub-Tropical Zone of Jammu & Kashmir continue sowing of ghobi sarson with toria as mixed or intercrop and nursery raising of cole crops and onion. Continue sowing of root crops like radish, carrot, turnip.
    - In Intermediate Zone of Jammu & Kashmir, due to hot weather conditions, there are chances of canker in citrus fruits, for control, spray Malathion @ 10 ml or Metasystox @ 10 ml per 10 litres of water on a non rainy day.
  - **Himachal Pradesh:**
    - Undertake harvesting of rice, soybean mash and cowpea in Sub-Montane and Low Hills Sub-Humid Tropical Zone of Himachal Pradesh. Undertake sowing of gobhi sarson and linseed utilizing the realized rainfall. Sowing of berseem, lucerne and oats may also be undertaken as fodder crops during *rabi* season. Complete sowing of gram and lentil and undertake land preparations for sowing of early wheat in lower regions.
    - Complete sowing of radish, turnip and spinach in Mid Hills Sub-Humid Zone of Himachal Pradesh. Undertake nursery preparation for sowing of late season cauliflower (Pusa-snowwall) and cabbage. Continue harvesting of onion bulbs, tomato, capsicum and cucumber.
    - Continue nursery sowing of mid-season cauliflower and cabbage in poly house, planting of onion at 30X 10 cm spacing and sowing of potato in mid hill and lower region, transplanting of ageti cauliflower and cabbage in lower region in Sub-Montane and Low Hills Sub-Humid Tropical Zone and Bilaspur district of Mid Hills Sub-Humid Zone of Himachal Pradesh utilizing the realized rainfall. Continue nursery sowing of late varieties of cauliflower, cabbage, knol khol and direct sowing of radish, carrot, turnip, palak and methi and sowing of early varieties of Pea in mid hill areas utilizing the realized rainfall.
    - As mainly dry weather would prevail, continue harvesting of rajmah and potato in High Hill Temperate Dry Zone of Himachal Pradesh.
    - Continue intercultural operation like weeding in peas in High Hill Temperate Dry Zone of Himachal Pradesh. Spray Glycel @ 5ml per liter of water for weed control on a non rainy day.
    - Under prevailing humid weather condition, there are chances of incidence of scab and alternaria leaf spot diseases and canker and mite attack in apple in Mid Hills Sub Humid Zone of Himachal Pradesh. Spray Mancozeb or Ziram @ 700ml per 200 litres of water for control of scab and alternaria leaf spot diseases. 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 on a non rainy day.
- **Uttarakhand:**
  - Continue land preparation for transplanting of onion and sowing of garlic. Also continue sowing of mustard,



palak, methi, raddish, early toria, pea in Hill Zone of Uttarakhand.

- 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 and planting of potato.
- Undertake harvesting of *kharif* maize and pulses like urad /moong and field preparation for planting of winter sugarcane in Sub Humid Sub Tropical Zone of Uttarakhand.
- Under hot weather condition, there are chances of attack of gundhi bug in rice in Sub humid Sub Tropical Zone of Uttarakhand. Spray Malathion or Carbaryl @ 30 kg per hectare.
- Due to rise in temperature, there are more chances of incidence of semi looper and hairy caterpillar in soybean at flowering and pod formation stage in Bhabar and Tarai Zone of Uttarakhand. For control, spray Trizophos @ 200 ml or Methanil @ 800 ml dissolved in 200 liters of water per acre.
- **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 sowing of potato, palak and nursery sowing of cauliflower. Continue harvesting of matured maize and groundnut in Ludhiana district. Continue planting of early maturing autumn sugarcane.
- In Western Zone of Punjab, undertake sowing of raya during the first fortnight of October.
- In Undulating Plain Zone of Punjab, high humidity 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 Monocrofos 36SL @ 560ml in 100 lits of water per acre.
- In Western Zone of Haryana, continue plantation of new orchard. Prepare the field for sowing of mustard and gram and arrange the certified seeds for mustard and gram. As dry weather would prevail harvest the matured guar and bajra crop.
- 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:**
- Undertake nursery sowing/transplanting of cabbage, cauliflower, tomato and chilli and planting of potato with available moisture in Central Plain Zone of Uttar Pradesh.
- Undertake land preparation for planting of potato in Raibareilly, Amethi and Sultanpur districts of Eastern Plain Zone of Uttar Pradesh.
- Continue transplanting of cauliflower, cabbage, tomato, chilli and brinjal, sowing of palak, cucumber, methi, ageti carrot in Jhansi district of Bundelkhand Zone of Uttar Pradesh. Undertake harvesting of matured moong. Maintain 5cm water level in rice at panicle initiation and flowering 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.
- Under prevailing humid weather condition, there are chances of attack of mango hopper and mealy bugs in mango in Barabanki, Faizabad, Sant Kabir Nagar and Gorakhpur districts of Eastern Plain Zone of Uttar Pradesh. Spray Methyl Parathion @ 1ml or Dimethioate @ 1.5 ml per litre of water at an interval of 15 days.
- Due to prevailing humid weather condition, there are chances of attack of beetle in banana in Central Plain Zone of Uttar Pradesh. Spray Monocrofos @ 1.25 ml per litre of water or add 3-4 g Carbofuron in soil.
- **Rajasthan:**
- Undertake land preparation for sowing of mustard in Semi Arid Eastern Plain Zone of Rajasthan.
- Continue nursery raising of tomato, brinjal, chillies, cabbage etc. 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 nursery sowing of mid season cauliflower (Japanese, Pusa hybrid-2 and Himjyoti) and sowing radish (Pusa Chetki) in Arid Western Plain Zone of Rajasthan. Apply remaining half dose of nitrogen *i. e.* 30 kg/ha through urea in 25-30 days old pearl millet crop.
- In Arid Western Plain Zone of Rajasthan, undertake land preparation for sowing of mustard and gram.
- In Arid Western Plain Zone of Rajasthan, undertake hoeing and weeding to create dust mulch for checking evaporation losses and also for control of weeds in rainfed crop like pearl millet, guar and moth bean. If water stress persists for longer time, spray Thiourea @ 0.1%. Also undertake land preparation for sowing of mustard.
- In Southern Humid Plain Zone of Rajasthan, due to dry weather conditions there may be water stress in rainfed crops like pearl millet, guar and moth bean. To avoid stress, spray Thiourea @ 0.1%.
- Suitable varieties are given in Annexure I.

- **Horticulture:**

- Prevailing hot weather condition is conducive for the attack of leaf minor in new growth of citrus in Sub Montane and Low Hills Sub-Tropical Zone of Himachal Pradesh. For control, spray Matasystox or Malathion @ 10 ml per 10 litres of water.
- **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 Rainfall:** Rain/thundershowers has occurred at many places over Vidarbha. Weather remained dry over rest of the region.
- **Weather Forecast:** Either isolated rain / dry weather is likely over the region except Vidarbha where rainfall is likely at a few places and decrease thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Weather would be mainly dry over the region.
- **Advisories:**
- 
- **Maharashtra:**
- In Konkan, maintain water level upto 5-8 cm in rice fields. Undertake fertilizer application and intercultural operations in rice, finger millet, vegetable fields and mango and cashew orchards. Early maturing rice variety is at maturity stage in South Konkan, continue harvesting during morning hours.
- In Madhya Maharashtra, maintain water level of 5-8 cm in rice field. Continue intercultural operations like weeding and fertilizer application in sugarcane, vegetables and orchards. In already harvested fields continue sowing of *rabi* jowar and safflower utilizing the available soil moisture. Undertake pruning in grapes during October for better growth of fruit bunch. Apply phosphorous ( $P_2O_5$ ) @ 250 kg/ha after pruning. Apply irrigation to sugarcane, vegetables and grapes, banana and pomegranate orchards and early sown *rabi* jowar.
- In Marathwada, undertake intercultural operations in cotton, red gram and vegetables. With the available soil moisture, undertake sowing of rainfed jowar. Undertake field preparation for sowing of *rabi* jowar and safflower. Apply irrigation to sugarcane, soybean and vegetables.
- In Vidarbha, apply fertilizers and undertake intercultural operations in cotton, red gram and vegetables. Maintain water level up to 7 cm in rice field in East Vidarbha. Prepare the field for sowing of safflower in the harvested field of green gram and black gram. Apply irrigation to vegetables, soybean (at pod development stage), cotton and orange, sweet lime orchards. Early sown soybean is at maturity stage in Central Vidarbha Zone, start harvesting of matured crop and prepare harvested field for sowing of gram.
- Light rain and humid weather in Pune region is favourable for infestation of downy mildew in grapes, spray Metalaxyl 8% +Mancozeb 64% @ 20g per 10 litres water for 5 times at 12 days interval after pruning.
- Due to subdued rains in South Konkan, there may be attack of ear head bug in rice; spray Monocrotophos 36 WSC @ 12 ml or Cypermethrin 25 EC @ 2.4 ml per 10 litres water or dust 2% Methyl parathion dust @ 20 kg/ha during calm wind.
- **Gujarat:**
- Undertake land preparation for sowing of mustard and fennel in Bhal and Coastal Zone. Complete harvesting of matured pulse crops.
- Carry out intercultural operations and weeding in standing rice and pulse crops in Middle Gujarat Zone. As mainly dry weather is prevailing, apply irrigation in pulse crops.
- Undertake land preparation and keep inputs ready for sowing of *rabi* mustard in North Gujarat Zone. Carry out weeding and intercultural operations in cluster bean and castor crops to conserve soil moisture. Taking advantage of mainly dry weather, continue harvesting of groundnut and sesame crops.
- Undertake sowing of mustard, gram, peas, carrot (for vegetable purpose) and garlic in North Saurashtra Zone. Complete harvesting of matured sesame. Apply irrigation in vegetable, cotton and groundnut to avoid moisture

stress condition. To reduce dropping of flowers and immature balls in early sown cotton, spray Nephthalic acetic acid @ 7 ml in 10 liters of water.

- Undertake planting of sugarcane and carry out intercultural operation in pigeon pea in South Gujarat Zone.
- Due to hot and humid weather condition in North Saurashtra Zone, jassid and white fly attack is observed in cotton, groundnut and vegetable crops; spray Flonicamid @ 4 g/10 liters of water to control the pest.
- Suitable varieties are given in Annexure I.
- **Animal Husbandry**
- In Gujarat, keep animal shed hygienic and clean, to avoid flies and mosquitoes.

## **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, Suhasi.

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

**Broccoli:** Everest, Ayeshwaria.

### 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.