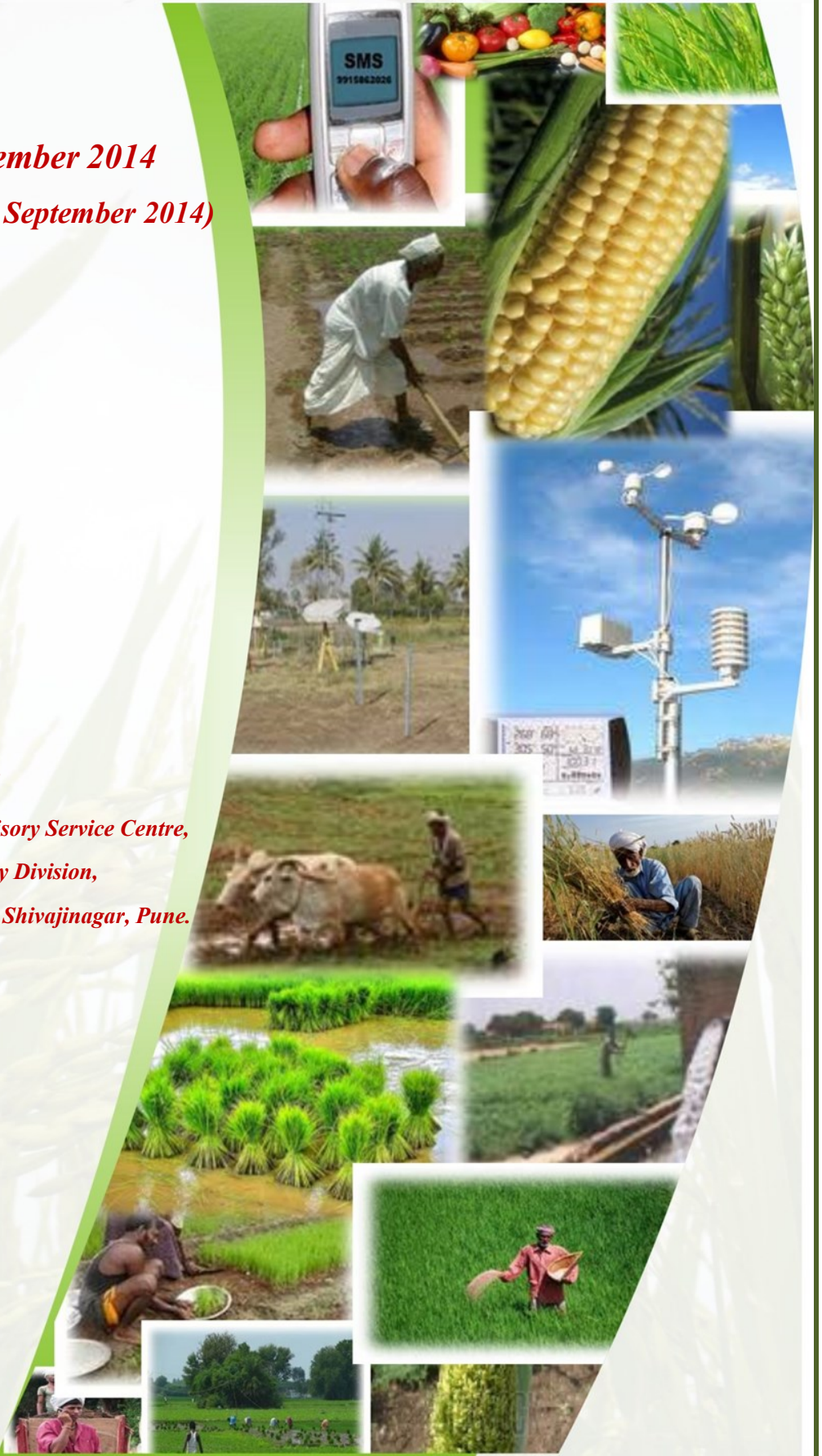


# National Agromet Advisory Service Bulletin

**Tuesday 2<sup>nd</sup> September 2014**  
**(For the period 2<sup>nd</sup> to 5<sup>th</sup> September 2014)**



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



## Monsoon Watch

- Southwest monsoon was vigorous over Odisha & Kerala and active over Jharkhand, Uttarakhand, Himachal Pradesh, East Rajasthan, West Madhya Pradesh, Gujarat region, Konkan & Goa, Chhattisgarh, Marathwada, Vidarbha, Madhya Maharashtra, Gangetic West Bengal, Coastal Andhra Pradesh and Telangana.

### Realised Weather on 2<sup>nd</sup> September 2014

- Rainfall:** (From 0830 hours IST to 1730 hours IST of yesterday): Rain/thundershowers occurred at many places over Jammu & Kashmir, Madhya Pradesh, Konkan & Goa and Karnataka; at a few places over Madhya Maharashtra, Chhattisgarh, East Uttar Pradesh, Bihar, Jharkhand and Gangetic West Bengal and at isolated places over Coastal Andhra Pradesh, Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands. Weather remained mainly dry/dry over rest parts of the country. The amounts of rainfall (2 cm or more) recorded at 1730 hours IST of yesterday were: Diu 7; Phalodi 6; Washim, Katra & Pachmarhi 4 each; Deesa, Amreli, Goa, Yeotmal, Kolkata & Uluberia 3 each; Malegaon, Harnai, Tanabelapur, Palakkad, Gondia, Solan, Batote, Canning, Puri, Mayabandar, Panagarh, Titlagarh, Midnapore, Mana, Mumbai & Khajuraho 2 each.
- Temperature:** Yesterday maximum temperatures were above normal by 2-5°C at many places over south Rajasthan and Madhya Pradesh; at a few places over Assam & Meghalaya and Tamilnadu; at isolated places over Saurashtra & Kutch, and Andaman & Nicobar Islands. They were below normal by 2-5°C at many places over Jammu & Kashmir, Himachal Pradesh, Odisha, Gangetic West Bengal & Sikkim and Maharashtra; at a few places over West Rajasthan, Bihar, Jharkhand, Coastal Andhra Pradesh, Telangana and interior Karnataka and at isolated places over East Uttar Pradesh and near normal over rest parts of the country.

### Weather Forecast

#### Weather Forecast for next 3 days (upto 0830 hours IST of 5<sup>th</sup> September, 2014)

- Rain/thundershowers would occur at most places over West Madhya Pradesh, Gujarat State, Konkan & Goa and Coastal Karnataka during the period.
- Rain/thundershowers would occur at many places over Himachal Pradesh, Uttarakhand, Punjab, Haryana, Delhi, Chhattisgarh, Andaman & Nicobar Islands during the period.
- Rain/thundershowers would occur at most places over Kerala during next 24 hours; over East Madhya Pradesh during next 48 hours and at many places thereafter.
- Rain/thundershowers would occur at a few places over West Uttar Pradesh and West Rajasthan during next 24 hours; over Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura and Bihar during next 48 hours and at many places thereafter.
- Rain/thundershowers would occur at most places over Odisha and Vidarbha during next 24 hours; at many places on 3<sup>rd</sup> and at a few places thereafter.
- Rain/thundershowers would occur at many places over East Rajasthan during next 24 hours and at most places thereafter.
- Rain/thundershowers would occur at many places over Gangetic West Bengal, Jharkhand, Marathwada, Telangana and South Interior Karnataka during next 24 hours; over Jammu & Kashmir, Madhya Maharashtra and Lakshadweep during next 48 hours and at a few places thereafter.
- Rain/thundershowers would occur at a few places over Arunachal Pradesh, Sub-Himalayan West Bengal & Sikkim, East Uttar Pradesh and Coastal Andhra Pradesh during the period.

#### Weather Warning during next 3 days

- 02 September (Day 1):** Heavy to very heavy rainfall would occur at a few places with isolated extremely heavy falls over Gujarat region, Saurashtra & Kutch. Heavy to very heavy rainfall would occur at a few places over Konkan & Goa. Heavy to very heavy rainfall would occur at isolated places over West Madhya Pradesh. Heavy rainfall would occur at isolated places over Himachal Pradesh, Uttarakhand, East Rajasthan, East Madhya Pradesh, Vidarbha, Odisha, Coastal Karnataka and Kerala.
- 03 September (Day 2):** Heavy to very heavy rainfall would occur at a few places over Gujarat region, Saurashtra & Kutch. Heavy to very heavy rainfall would occur at isolated places over East Rajasthan and West Madhya Pradesh. Heavy rainfall would occur at isolated places over Himachal Pradesh, Uttarakhand, West Rajasthan, Odisha and Konkan & Goa.
- 04 September (Day 3):** Heavy to very heavy rainfall would occur at a few places over Gujarat region, Saurashtra & Kutch. Heavy to very heavy rainfall would occur at isolated places over East Rajasthan and West Madhya Pradesh. Heavy rainfall would occur at isolated places over Himachal Pradesh, Uttarakhand, West Rajasthan and Konkan & Goa.

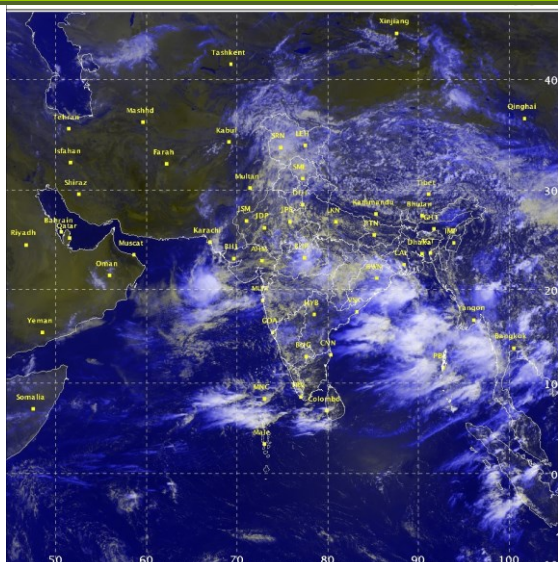
#### Weather Outlook for subsequent 4 days from 05<sup>th</sup> September 2014 to 09<sup>th</sup> September 2014

- A low pressure area would form over northwest Bay of Bengal around 4th September.
- Increase in rainfall intensity over west & northwest India.

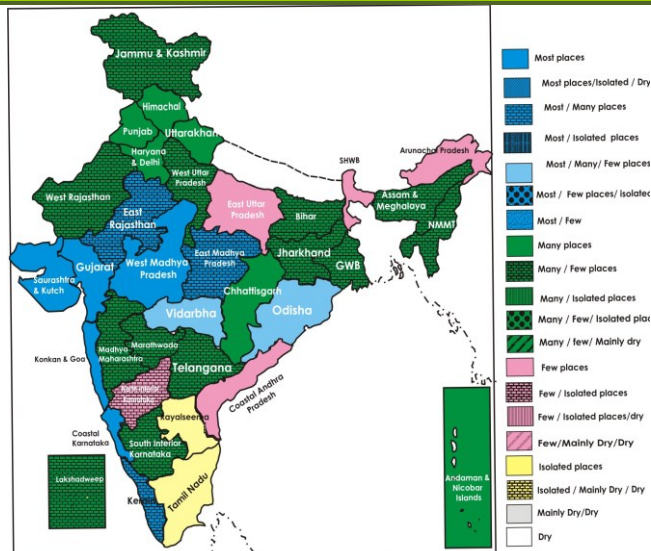
- Rain/thundershowers would occur at a few places over North Interior Karnataka during next 48 hours and at isolated places thereafter.
- Rain/thundershowers would occur at isolated places over Rayalaseema, Tamil Nadu & Pudducherry during the period.

- Rain/thundershowers would occur at many places along west coast, Northwest India, East & Northeast India and at a few places over central and adjoining peninsular India
- Rain/thundershowers would occur at isolated places over remaining parts of the country.

**Satellite image dated, 02.09.2014, 0600 UTC**



**Weather Forecast Map (Valid upto 0830 hours of 5<sup>th</sup> September 2014)**



## Salient Advisories

- In Western Plain Zone of **Punjab**, continue field preparation and sowing of short duration hybrid maize (PMH 2) utilizing the expected rainfall. In Western Plain and Undulating Plain Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot and turnip.
- In **Marathwada region** in Maharashtra, as rain occurred at many places, in unsown areas, sowing of contingency crops like sesame, sunflower and pigeon pea may be continued. Undertake rain water harvesting methods by making furrows in cotton, soybean and jowar fields.
- Continue sowing of horse gram, sunflower and fodder crops like cow pea, moth bean in the North Dry Zone utilising the realised and expected rainfall.
- In the **Southern Telangana** Zone, complete sowing of cotton, maize, groundnut, pulses, castor etc. utilising the realised and expected rainfall.
- In Scarce Rainfall Zone of **Rayalaseema**, continue sowing contingency crops like sorghum, bajra, foxtail millet, cowpea, sunflower, green gram, field bean, castor and horse gram utilizing the realised and expected rainfall.
- In Upper Brahmaputra Valley Zone and North Bank Plain Zone of **Assam**, farmers in the flood affected areas should select short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown within 1<sup>st</sup> week of September. Long duration cultivars like Monohar Sali, Andrew Sali and Gitesh can be transplanted with 60 days seedling, where as Prafulla can be transplanted with 90 days old seedlings. Therefore, farmers should be ready with this type of cultivars to cope up with flood situation.
- As rain/thundershowers would occur at most/many places over Madhya Pradesh during the period with heavy to very heavy rainfall at isolated places over West Madhya Pradesh during the period and heavy rainfall at isolated places over East Madhya Pradesh on 2<sup>nd</sup> September, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops. Provide adequate drainage in standing crops to remove excess water.
- As rain is likely to occur at most places of **Gujarat** State with heavy to very heavy rainfall at a few places during the period with isolated extremely heavy falls on 2<sup>nd</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to avoid water stagnation.

## Detailed Zonewise Agromet Advisories

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



*Transplanting of Rice*



*Sugarcane*



*Okra*



*Soybean*

- **Realised Weather:** Rain/thundershowers occurred at many places over Karnataka and at isolated places over Coastal Andhra Pradesh. Weather remained mainly dry/dry over rest parts of the region. Maximum temperatures were above normal by 2-5°C at a few places over Tamilnadu. They were below normal by 2-5° C at a few places over Coastal Andhra Pradesh, Telangana and interior Karnataka and near normal over rest parts of the region.
- **Weather Forecast:** Rain/thundershowers would occur at most places over Coastal Karnataka; at a few places over Coastal Andhra Pradesh during the period. Rain/thundershowers would occur at many places over Telangana and South Interior Karnataka during next 24 hours and at a few places thereafter. Rain/thundershowers would occur at a few places over North Interior Karnataka during next 48 hours and at isolated places thereafter. Rain/thundershowers would occur at isolated places over Rayalaseema, Tamil Nadu & Pudducherry during the period.
- **Weather Warning:** Heavy rainfall would occur at isolated places over Coastal Karnataka and Kerala on 2<sup>nd</sup> September.
- **Weather Outlook:** Rain/thundershowers would occur at a few places over peninsular India adjoining to central India. Rain/thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
  - **Karnataka:**
    - As rain/thundershowers would occur at most places over Coastal Karnataka during the period along with heavy rainfall at isolated places on 2<sup>nd</sup> September and rain/thundershowers would occur at many places over South Interior Karnataka on 2<sup>nd</sup> September, postpone irrigation, inter-cultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to remove excess water in Coastal Karnataka.
    - Continue sowing of horse gram, sunflower and fodder crops like cow pea, moth bean utilising the realized and expected rainfall in the North Dry Zone of Karnataka.
    - In Eastern Dry Zone of Karnataka, continue sowing of ragi and planting of coconut, sapota, guava and mango.
    - Due to the prevailing humid weather, green leaf eating caterpillar is noticed in soybean and likely to persist in North East Transition Zone of Karnataka. Spray Quinolphos @ 2 ml per liter of water to manage green leaf eating caterpillar after current spells of rain.
    - Due to prevailing humid weather, blue beetle insects were noticed in rice fields and likely to spread in the Southern Dry Zone of Karnataka. Spray Bavistin @ 1mg / litres of water after current spells of rain.
    - Due to cloudy weather, sucking pest is noticed in one month old cotton and likely to continue in the Central Dry Zone of Karnataka, spray Dimethoate 30 EC @1.7 ml in one liter of water on a non rainy day for controlling sucking pests.
  - **Kerala:**
    - As rain/thundershowers would occur at most/ many places over Kerala during the period along with heavy rainfall at isolated places on 2<sup>nd</sup> September, postpone irrigation, inter-cultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to remove excess water.
    - Present cloudy weather with high humidity condition is congenial for incidence of rice bug on rice in the Problem Area Zone of Kerala. Monitor the crop and spray Malathion @ 2ml/litre of water in the morning or evening hours after current spells of rain.
    - High humidity is congenial incidence of rice bug on rice and bud rot disease in coconut in the Southern and Central Zone of Kerala. Apply Sevin @600 g in 200 litre of water / acre to manage rice bug and to control bud rot disease, remove the affected portion and apply Bordeaux paste after current spells of rain.
    - High humidity and rainfall is congenial for the incidence of sigatoka leaf spot in banana in the Central Zone of Kerala. Phytosanitation and application of fungicide 1% Bordeaux mixture or Propiconazole @1ml/litre of water or Hexaconazole 2ml/litre of water may be done after current spells of rain to manage the disease.
  - **Telangana and Andhra Pradesh:**
    - As rain/thundershowers would occur at many places over Telangana on 2<sup>nd</sup> September, postpone irrigation,

intercultural operations and application of fertilizers and plant protection measures in standing crops.

- In the Southern Telangana Zone, complete sowing of cotton, maize, groundnut, pulses, castor etc. utilising the realised and expected rainfall.
- Due to severe moisture stress, maize crop has been damaged in Medak, Karimnagar and Mehbubnagar districts of Telangana. Stunted growth is also noticed in Bt Cotton which is at square formation stage. Top dressing of nitrogen may be carried out in cotton after current spells of rain.
- In Scarce Rainfall Zone of Rayalaseema, continue sowing contingency crops like sorghum, bajra, foxtail millet, cowpea, sunflower, green gram, field bean, castor and horse gram utilizing the realised and expected rainfall. Lay out dead furrows across the slope for every 3.6mts / 12 rows in groundnut fields for moisture conservation.
- Due to cloudy and humid conditions, sucking pest incidence in cotton and helicoverpa in tomato was observed and likely to continue in Anantpur district in the Scarce Rainfall Zone of Rayalaseema. Apply Monochrotophos + water @ 1:4 ratio in the stem with brush at 20,40, 60 DAS to manage sucking pest incidence and spray Larvin @ 1.5 g/litre to manage helicoverpa incidence.
- Present humid condition is congenial for sucking pest incidence in cotton in the Southern Zone of Andhra Pradesh. Spray Phenophos 2 ml/litre of water or Diafenthiuron 1.25 gms/litre of water on a non rainy day to manage the incidence.
- Reddening of leaves due to Rhizoctonia root rot is observed in cotton and is likely to increase in the Southern Telangana Zone. Soil drench with Copper-Oxy-Chloride @3g or Carbendazim 25% + Mancozeb 50% @ 2.5g or Carbendazim 12% + Mancozeb 63% @ 3g per litre of water around the root zone of young seedlings after current spells of rain 2-3 times at 7-10 days interval .
- **Tamil Nadu:**
  - Continue sowing of *samba* rice in the Cauvery Delta Zone of Tamil Nadu.
  - Continue sowing of maize in irrigated as well as rainfed condition and winter irrigated cotton by utilizing realized rainfall in the Western Zone of Tamil Nadu.
  - Continue sowing of sorghum under rain fed condition utilizing the realized rainfall in the North Western Zone.
  - Prevailing cloudy weather is congenial for incidence of leaf minor in tomato in the Western Zone of Tamil Nadu. Spray Neem Seed Kernel Extract @50 g/litre to manage the incidence.
- **Animal Husbandry**
  - Prevailing weather conditions are congenial for Anthrax and Enterotoxaemia in livestock in the Scarce Rainfall Zone of Andhra Pradesh. Vaccinate the animals to prevent the diseases.
  - Due to increase in temperature, clean the animals, provide good ventilation, protect animals from mosquitoes and give vaccinations to manage seasonal diseases in the Krishna Godavari Zone of Andhra Pradesh.

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



*Transplanting of Rice*



*Okra*



*Jute*



*Green Gram*

- **Realised Weather:** Weather remained mainly dry/dry over the region. Maximum temperatures were above normal by 2-5°C at a few places over Assam & Meghalaya and near normal over rest parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at a few places over Arunachal Pradesh during the period. Rain/Thundershowers would occur at a few places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura during next 48 hours and at many places thereafter.
- **Weather Warning:** Nil.
- **Weather Outlook:** Rain/thundershowers would occur at many places over northeast India.
- **Advisories:**
  - **Assam & Meghalaya, Arunachal Pradesh:**
    - As rain/thundershowers would occur at many places over Assam & Meghalaya on 4<sup>th</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
    - In Central Bramhaputra Valley Zone of Assam, continue sowing of green gram, black gram, sesame and nursery sowing of cole crops.
    - In flood affected areas of Lower Bramhaputra Valley Zone of Assam, the following contingency measures may be adopted for *sali* rice:

- Farmers who had lost seedlings in flood affected areas may opt for sowing seeds of short duration (90-95days) varieties like Luit, Kapili, Dishang etc. Seedlings of these varieties can also be transplanted when 20-25 days old up to middle of September.
  - In flood affected areas, transplantation of 60-70 days old seedlings of the varieties like Monohar Sali, Gitesh, Andrew Sali, Prasad Bhog, Prafulla etc. is possible upto Mid-September.
  - Top dressing of urea may be done at 25-30 days of transplanting *sali* paddy.
- In Upper Brahmaputra Valley of Assam, farmers from the flood affected areas should select cultivars like Jalashree, Jalkuwari, Plaban. Also, collect short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown within 1st week of September. More over long duration cultivars like Monohar Sali, Andrew Sali and Gitesh can be transplanted with 60 days seedling, where as Prafulla can be transplanted with 90 days old seedlings. Therefore, farmers should be ready with this type of cultivars to cope up with flood situation. Gap filling in the main field should be done with same age of seedling.
  - In North Bank Plain Zone of Assam, farmers in the flood affected areas should select short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc. 20-25 days old seedling of these cultivars can be transplanted in the main field upto mid of September. Late and staggered planting after receding flood with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) is also suggested up to mid of September. The old seedlings of other improved long duration variety like Monohar Sali, Salpona, Prasadbhog, Gobin bhog etc can be transplanted up to mid September.
  - In Hill zone of Assam, replanting of dead hills or gap filling with seedlings of *sali* rice of similar age should be done within 7-10 days of transplanting.
  - In Sub Tropical Hill Zone of Arunachal Pradesh, undertake harvesting of maize, black gram, green gram, cucurbits, French bean, okra in clear weather.
  - In Meghalaya, maintain water level of 3-5 cm in transplanted *sali* rice. 1<sup>st</sup> top dressing of 1/4<sup>th</sup> Urea (44Kg/ha) should be done after 1<sup>st</sup> hand weeding at 25-30 DAT. Continue nursery preparation/ sowing of vegetables like cabbage, cauliflower, carrot, radish, laipatta, broccoli and French bean, Undertake land preparation and planting of potato. Sowing of pea can be started now in high altitude of East Khasi Hills.
  - Cloudy and humid weather is favourable for attack of leaf folder and rice hispa in *sali* rice at tillering stage in North Bank Plain Zone of Assam. Monitor the crop and when there is one damaged leaf per hill due to attack of leaf folder or appearance of one adult hispa per hill is observed, spray Chloropyriphos 20EC or Monocrotophos 40EC @ 1.5ml per litre of water after current spells of rain.
  - Cloudy and humid weather is favourable for attack of Stem borer and caseworm in *sali* rice in Central Brahmaputra Valley of Assam. Spray Chloropyriphos(20%) @2ml/litre of water after current spells of rain.
  - Due to cloudy and humid weather, there is chance of attack of rice hispa in *sali* rice at tillering stage in Hill Zone of Assam, spray with Quinolphos @ 10 ml /5 litre of water. Also in cloudy weather, there is chance of attack of stem borer in maize, spray Fenitrotheon @1litre in 200-250 litre of water per ha after current spells of rain.
  - Due to prevailing humid weather conditions, there is chance of attack of gundhi bug in early transplanted rice in Arunachal Pradesh. Dust with Malathion 5D @ 20 kg/ha on a non rainy day. Repeat after one week.
  - In Meghalaya, due to cloudy weather & high humidity, there is chance of incidence of blast in direct seeded *ahu* rice. Spray Mancozeb @ 2g/litre or Carbendazim @1g/litre after current spells of rain.
- **Nagaland, Manipur, Mizoram and Tripura:**
  - As rain/thundershowers would occur at many places over Nagaland, Manipur, Mizoram and Tripura on 4<sup>th</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
  - In Manipur, maintain water level of 5-8cm in *Kharif* rice and weeding may be done before top dressing.
  - In Nagaland, provide good drainage in ginger fields to avoid rhizome rot.
  - In Mild Tropical Plain Zone of Tripura, provide adequate drainage in groundnut at pod filling stage particularly in low and medium lands and where there is a chance of water stagnation due to rain.
  - In Manipur, due to rainy season there is chance of rhizome rot / soft rot in ginger, apply Trichoderma Harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water after current spells of rain.
  - In Mizoram, due to continuous wet condition, there is chance of leaf spot on ginger & turmeric, spray Dithane M-45 @ 2.5g/litre of water or Bavistin @ 1g/litre of water or Blitox @ 3 g/litre of water after current spells of rain.
  - In Mild Tropical Plain Zone of Tripura, there is chance of attack Leaf Folder due to prevailing humid weather. The attack may be managed by application of Imidachloprid @2ml per litre of water. Also, in the present weather, there may be attack of downy mildew in bitter gourd and pointed gourd. Redomil –MZ @2 gm per liter may be applied to manage the attack. Apply the chemicals after current spells of rain.
- **Animal Husbandry**
  - In Assam, cattle should not be fed with water submerged rotten grass and give anti-worm drugs.
  - In Arunachal Pradesh, provide artificial heating through lighting of electric bulb during night time to protect the poultry birds (day old to 25 days old) from low temperature. Pig shed/stay should keep dry and avoid dampness during rainy days.
  - In Nagaland, precaution should be taken against Japanese encephalitis, a mosquito borne disease in pig. Avoid

stagnant water in and around the sty, maintain proper hygienic condition. High humidity is favourable for occurrence of Coccidial disease in poultry, provide anti-coccidial drugs.

- In Tripura, due to rain, animals are mostly kept in the shade. Damp litter and high moisture are good media for the growth of protozoa which causes Coccidiosis in the chicken, so avoid dampness in the deep litter.
- In Manipur, provide clean drinking water to livestock. Avoid water logging around the sheds as it may help in mosquito breeding.

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



**Sugarcane**



**Jute**



**Onion**



**Transplanting of Rice**

- **Realised Weather:** Rain/thundershowers occurred at a few places over Bihar, Jharkhand and Gangetic West Bengal and at isolated places over Sub-Himalayan West Bengal & Sikkim and Andaman & Nicobar Islands. Weather remained mainly dry/dry over rest parts of the region. Maximum temperatures were above normal by 2-5°C at isolated places over Andaman & Nicobar Islands. They were below normal by 2-5° C at many places over Odisha and Gangetic West Bengal & Sikkim; at a few places over Bihar and Jharkhand and near normal over rest parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at many palces over Andaman & Nicobar islands during the period. Rain/Thundershowers would occur at a few places over Sub-Himalayan West Bengal & Sikkim during the period. Rain/Thundershowers would occur at many places over Gangetic West Bengal and Jharkhand during next 24 hours and at a few places thereafter. Rain/Thundershowers would occur at most places over Odisha during next 24 hours; at many places on 3<sup>rd</sup> September and at a few places thereafter. Rain/Thundershowers would occur at a few places over Bihar during next 48 hours and at many places thereafter.
- **Weather Warning:** Heavy rainfall would occur at isolated places over Odisha on 2<sup>nd</sup> and 3<sup>rd</sup> September.
- **Weather Outlook:** Rain/thundershowers would occur at many places over East India.
- **Advisories:**
  - **West Bengal:**
    - As rain/thundershowers would occur at many places over Gangetic West Bengal on 2<sup>nd</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops.
    - In Old Alluvial Zone, undertake sowing of black gram utilizing the realised rainfall.
    - In Old Alluvial Zone, avoid water stagnation in turmeric and ginger, to prevent rhizome rot. Due to cloudy and humid weather, there is a chance of stem borer in aman rice, apply Carbofuran 3g@ 25Kg per hectare. In this weather condition, there is chance of collar rot in vegetables. Spray Copper Oxychloride (Blitox) @4g/ Tricyclazole @ 0.5g/ Trichoderma Viridae @ 4g per litre of water. Apply chemicals on a non rainy day.
    - Due to cloudy and high humid weather conditions, there is chance of attack of leaf folder in aman rice in New Alluvial Zone. As a control apply Triazophos @ 0.5 ml/litre or Chlorpyriphos 50% + Cypermethrin 5% @ 1.5 ml/litre of water. Also attack of white fly in okra has been reported leading to the spread of yellow mosaic virus. Spray Difenthiuron @ 0.75g per litre of water to prevent the further spread of the disease. Apply Redomil -MZ (@2 g per litre to control downy mildew and mosaic in bitter and pointed gourd. Spray Difenthiuron @ 0.75g per litre of water against thrips and mites in chilli after current spells of rain.
    - In Laterite and Red Soil Zone, due to cloudy weather conditions, there is chance of attack of cutworm or termites in maize. To protect the crop, apply Chloropyrithos @ 3.5 kg / bigha (1.5% powder) after current spells of rain.
    - In Terai Zone, due to wet condition, brown spot with yellow halo is found on the leaf of betel vine. To manage the disease, spray Mancozeb 64% + Matalaxyl 8% @ 1.5 g/litre by wetting the whole vine.. To protect aman rice against blast and sheath blight, spray Propiconazole @1 ml/litre of water. Apply chemicals on a non-rainy day.
  - **Andaman and Nicobar Island**
    - In North and Middle Andaman, prepare seed beds for nursery for early brinjal and chilli.
    - In North and Middle Andaman, to minimize the sheath blight disease in rice, apply Pseudomonas Fluroscens @ 2.5 kg/ha 30 days after transplanting and for control of leaf folder apply Chlorpyriphos 20 EC @ 2-3 ml/lit or Dimethoate 1.5 ml/litre.
- **Odisha:**
  - As rain/thundershowers would occur at most/ many places over Odisha on 2<sup>nd</sup> and 3<sup>rd</sup> September along with heavy rainfall at isolated places, postpone irrigation, intercultural operations, application of plant protection measures and

fertilizers in the standing crops. Provide adequate drainage in standing crops to remove excess water.

- In East and South Eastern Coastal Plain Zone of Odisha, in case of complete failure of crops due to flood in medium uplands, undertake sowing of pre-rabi green gram, black gram, horse gram, sesame and castor.
- In North Central Plateau Zone of Odisha, continue planting of lemon and mango.
- In Western Undulating Zone of Odisha, waterlogged conditions with high humidity (75-80%) favours buildup of scale insect, whitefly and Pyrrilla in sugarcane. Spray Imidacloprid @ 1 ml / 4 litres of water after current spells of rain.
- In East and South Eastern Coastal Plain Zone and North Central Plateau Zone of Odisha, prevailing temperature may favour egg laying of stem borer in rice. To attract the borer butterflies, place 4 Pheromone Traps/acre, collect the adults and destroy them by burying them under soil or by burning and spray Prophenophos @ 2 ml per litre water after current spells of rain.
- In North Central Plateau Zone of Odisha, infestation of thrips has been occurred on groundnut and likely to spread. Spray Dimethoate 30EC @ 2 ml per 1 litre of water . Also Bud necrosis has been found. Spray Imidacloprid @ 4ml /10 litre water to control the vector after current spells of rain.
- In North Central Plateau Zone of Odisha, fruit and shoot borer in brinjal has been found. To control it, install Pheromone trap @12 nos /ac. Alternately, spray Sevin WP @ 4 g or Malathion @2 ml in 1 litre of water. For control of Root rot in pointed gourd, spray 10 g Plantomycine along with 20 g Blitox 50 in 10 litres water after current spells of rain.
- **Bihar:**
- As rain/thundershowers would occur at many places over Bihar on 4<sup>th</sup> September, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops
- In North West Alluvial Plain Zone of Bihar, continue planting of onion. Undertake weeding in early transplanted rice on a non-rainy day and after weeding apply 20 kg nitrogen/ha. Continue sowing of pigeon pea and urad in upland areas. Continue planting of Mango, Litchi, Guava and Papaya.
- In North East Alluvial Plain Zone of Bihar, in transplanted rice, apply top dressing of 1/3<sup>rd</sup> urea (44 kg/ha) after 1<sup>st</sup> hand weeding at 25-30 days after transplanting and apply remaining 1/3<sup>rd</sup> urea (44 kg/ha) after 2<sup>nd</sup> hand weeding at 40-45 days after transplanting. Complete transplanting of chilli, brinjal and cauliflower in raised bed.
- In South Bihar Alluvial Zone, apply urea as 1<sup>st</sup> top dressing in 20-25 days old transplanted rice and 2<sup>nd</sup> top dressing after 40-45 days of transplanting of rice. Continue planting of Mango, Litchi, Guava and Papaya.
- **Jharkhand:**
- In Western Plateau Zone of Jharkhand, in upland areas, continue sowing of kulthi, niger and black gram by selecting improved varieties. In rice, apply urea after 20-25 days of transplanting. Prepare field for sowing of early potato and pea. Undertake sowing of maize in medium land. Select short duration variety like Birsa Vikas Maize-2 (Duration- 70-80 days) and medium duration variety like Birsa Maize-1 (Duration-80-85days). Undertake sowing of toria in medium land.
- In South Eastern Plateau Zone of Jharkhand, in fallow sloppy lands, undertake cultivation of Septemper Pigeonpea, Kulthi, Niger, Lobia, Rice bean.
- In South Eastern Plateau Zone of Jharkhand, due to high humidity and extended leaf wetness, there are chances of Blast in rice crop, spray Tricyclazole @ 6 g per litre of water on a non rainy day. Also due to cloudy weather and intermittent rain, there are chances of leaf blight in pulse crop, spray Indofil M 45 @ 2 g per litre of water a non rainy day.
- Due to hot and humid weather, attack of stem borer in rice crop is being seen in Western Plateau Zone of Jharkhand. To control the stem borer spray insecticide Monocrotophos 36 E.C. @ 1-2 ml per litre of water and mix Tipol in the solution or prepare the solution in soap water. In case of heavy infestation of the insect, apply granular insecticide like Carbofuran 3 G @ 12 kg per acre) or phorate 10 G (@ 4 kg per acre). However, at the time of broadcasting of granular insecticide, stagnated water in the field is must.
- Due to prevailing humid weather conditions, there is chance of attack of gundhi bug in timely sown rice in Western Plateau Zone of Jharkhand. To control the insects, dusting of Chlorpyrifos / Quinolphos / Methyl parathion dust @ 10 kg per acre on a non rainy day. As an alternative method (in the case of unavailability of the insecticides), dusting of coal / wood ash mixed with keroséne.
- **Animal Husbandry**
- In Coastal Saline Zone of West Bengal, due to humid weather, there is chance of worm infection in case of grazing cattle. Feed Bolus (albomer, albozen, wormer-1.5 g) @ 1 bolus per 150 kg body weight.
- **Fishery**
- In Old Alluvial Zone West Bengal, due to incursion of muddy water, there may be lack of oxygen in water in fish ponds. Apply Potassium per magnate @250-500g/bigha/meter in pond water.



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



*Sugarcane*



*Transplanting of Rice*



*Okra*



*Green Gram*

- **Realised Weather:** Rain/thundershowers occurred at many places over Madhya Pradesh; at a few places over Chhattisgarh. Weather remained mainly dry/dry over rest parts of the region. Maximum temperatures were above normal by 2-5°C at many places over Madhya Pradesh and near normal over rest parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at most places over West Madhya Pradesh and at many places over Chhattisgarh during the period. Rain/Thundershowers would occur at most places over East Madhya Pradesh during next 48 hours and at many places thereafter.
- **Weather Warning:** Heavy to very heavy rainfall would occur at isolated places over West Madhya Pradesh during the period. Heavy rainfall would occur at isolated places over East Madhya Pradesh on 2<sup>nd</sup> September.
- **Weather Outlook:** Rain/Thundershowers would occur at a few places over Central India. Rain/Thundershowers would occur at isolated places over remaining parts of the region.

### Advisories:

#### ▪ Madhya Pradesh:

- As rain/thundershowers would occur at most/many places over Madhya Pradesh during the period with heavy to very heavy rainfall at isolated places over West Madhya Pradesh during the period and heavy rainfall at isolated places over East Madhya Pradesh on 2<sup>nd</sup> September, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops. Provide adequate drainage in standing crops to remove excess water.
- Due to cloudy weather, there are chances of attack of semilooper, tobacco caterpillar and gradle beetle in soybean, moong and urad in Jhabua Hill Zone of Madhya Pradesh, Spray Profenophos @ 2 ml per litre of water after current spells of rain.
- Due to cloudy weather, there are chances of incidence of leaf spot in urad crop in Gird Zone of Madhya Pradesh, spray Mancozeb @ 2.5 g per litre of water after current spells of rain.
- Due to humid weather, there is possibility of attack of gradle beetle in soybean in Bundelkhand Zone of Madhya Pradesh, spray Trizophos 40 E.C. @ 2.0 ml per litre of water after current spells of rain.

#### ▪ Chhattisgarh:

- As rain/thundershowers would occur at many places over Chhattisgarh during the period, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops.
- Due to humid weather, there are chances of attack of Tobacco caterpillar in soybean, black gram and pigeon pea in Plain Zone of Chhattisgarh, spray Quinalphos 25 E.C. @ 1.25 litre per hectare after current spells of rain.
- Due to cloudy weather, there are chances of attack of stem borer in rice in North Hill Zone and Plain Zone of Chhattisgarh, apply granular insecticide like Carbofuran 3G @ 12 kg per acre or Phorate 10G (@ 4 kg per acre. However, at the time of broadcasting of granular insecticide, stagnant water must be available in the field after current spells of rain.

#### • Animal Husbandry

- In Madhya Pradesh, provide clean water and concentrate feed mixed with dry and green fodder to cattle.
- In Chhattisgarh, create smoke around cattle sheds to protect from mosquitoes.

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



**Transplanting of Rice****Sugarcane****Bottle Gourd****Onion**

- **Realised Weather:** Rain/thundershowers occurred at many places over Jammu & Kashmir; at a few places over East Uttar Pradesh. Weather remained mainly dry/dry over rest parts of the region. Maximum temperatures were above normal by 2-5°C at many places over south Rajasthan. They were below normal by 2-5° C at many places over Jammu & Kashmir and Himachal Pradesh; at a few places over West Rajasthan; at isolated places over East Uttar Pradesh and near normal over rest parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at many places over Uttarakhand, Haryana & Delhi, Punjab and Himachal Pradesh during the period. Rain/Thundershowers would occur at a few places over East Uttar Pradesh during the period. Rain/Thundershowers would occur at many places over Jammu & Kashmir during next 48 hours and at a few places thereafter. Rain/Thundershowers would occur at many places over East Rajasthan during next 24 hours and at most places thereafter. Rain/Thundershowers would occur at a few places over West Uttar Pradesh and West Rajasthan during next 24 hours and at many places thereafter.
- **Weather Warning:** Heavy to very rainfall would occur at isolated places over East Rajasthan on 3<sup>rd</sup> and 4<sup>th</sup> September. Heavy rainfall would occur at isolated places over Himachal Pradesh and Uttarakhand during the period; over East Rajasthan on 2<sup>nd</sup> September and over West Rajasthan on 3<sup>rd</sup> and 4<sup>th</sup> September.
- **Weather Outlook:** Increase in rainfall intensity over northwest India. Rain/thundershowers would occur at many places over Northwest India. Rain/Thundershowers would occur at isolated places over remaining parts of the region.
- **Advisories:**
  - As rain/thundershowers would occur at most places over East Rajasthan, many places over Uttarakhand, Himachal Pradesh, Punjab, Haryana and Delhi during the period, over Jammu & Kashmir during next 48 hours and over West Uttar Pradesh on 3<sup>rd</sup> & 4<sup>th</sup> September, postpone irrigation, intercultural operations, application of plant protection measures and fertilizers in the standing crops.  
As heavy rainfall would occur at isolated places over Uttarakhand, Himachal Pradesh, isolated heavy to very heavy rainfall over East Rajasthan during the period and isolated heavy spells over West Rajasthan on 3<sup>rd</sup> & 4<sup>th</sup> September, provide adequate drainage in standing crops to remove excess water.
  - **Jammu & Kashmir:**
    - Undertake sowing of toria in fallow lands in Sub Tropical Zone of Jammu & Kashmir utilizing the realised and expected rainfall.
    - In Intermediate Zone of Jammu & Kashmir, continue nursery sowing of cabbage (Golden Acre, Pride of India and Pusa Mukta) and cauliflower (Giant Snow Ball and Pusa Synthetic).
    - Continue transplanting of cole crops and sowing of root crops preferably on ridges in Valley Temperate Zone of Jammu & Kashmir.
    - Due to humid weather conditions, there is attack of aphids on vegetable crops in Cold Arid Zone of Jammu & Kashmir. To control apply Malathion @ 1ml/litre of water after current spells of rain and repeat after 12 days of interval.
  - **Himachal Pradesh:**
    - Continue nursery sowing of mid season cauliflower and cabbage in poly house in mid hill and lower region and transplanting of ageti cauliflower and cabbage in Sub-Montane & Low Hills Sub-Tropical Zone after spells of heavy rain.
    - In Mid-Hills Sub-Humid Zone of Himachal Pradesh, continue sowing of carrot (var. Arkel, VL-7), cauliflower (Patna snowball and Joint snowball), cabbage (Pride of India, Golden anchor and hybrid) and transplanting of onion after spells of heavy rain.
    - Weather is conducive for attack of rice blast, hispa, leaf folder in rice in Mild Hills Sub Humid Zone of Himachal Pradesh. For control of rice blast, spray Bavistin 0.01 or Beam 75 WP 0.06% in 10-15 days interval. For rice hispa and leaf folder, spray Chloropyrifos 20 EC (2.5ml /litres) of water after current spells of rain.
    - In High Hill Dry Temperate Zone of Himachal Pradesh, due to prevailing humid weather condition, there are chances of attack of butterfly and aphids in cauliflower and cabbage. Spray Cypermethrin @ 1ml per litre of water after current spells of rain.
  - **Uttarakhand:**
    - In Sub humid Sub Tropical Zone of Uttarakhand, as rice crop is at active tillering stage, maintain 5cm water level.
    - Under present weather conditions, there are chances of leaf streak and BLB diseases in rice in Bhabar and Tarai Zone of Uttarakhand, if the incidence of disease is more than 10 %, spray a mixture of Copper Oxychloride @ 200 g and Stretocycline @ 6 g dissolved in 200 litres of water per acre after current spells of rain and repeat at an interval of 10 to 12 days.
  - **Punjab, Haryana and Delhi:**
    - In Western Plain Zone of Punjab, continue field preparation and sowing of short duration hybrid maize (PMH 2) utilizing the expected rainfall.
    - In Western Plain and Undulating Plain Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot and turnip.

- In Undulating Plain Zone of Punjab, complete new plantation of fruit crops as weather of this period is very favourable for the establishment and growth of small plants.
- Humid weather is favourable for stem and fruit rot in chilli in Central Plain Zone of Punjab, spray Indofil M-45 @750 g in 250 litres of water to check the disease. Also hot and humid weather is favourable for attack of fruit fly in guava, spray Fenvalrate (2.5 ml /litres of water) after current spells of rain and repeat at weekly interval. Fix fruit fly traps in orchards at the rate of 16 traps per acre.
- Due to partly cloudy weather, there are chances of occurrence of sucking pests viz. white fly and Jassids in cotton in Western Zone of Punjab. Monitor the crops and spray the Oberon @ 200ml/acre for white fly and Ulala 80g/acre for the management of Jassids.
- In Western Zone of Haryana, complete sowing of fodder crops such as jowar mixed with cowpea to increase the nutritive value for continuous supply of green fodder.
- In Delhi, continue transplanting of onion seedling in the prepared fields.
- **Uttar Pradesh:**
  - Continue nursery sowing of cauliflower, cabbage, tomato and chilli in Central Plain Zone and in Eastern Plain Zone of Uttar Pradesh utilizing the realized and expected rainfall.
  - Continue sowing of arhar (Bahar, Narendra Arhar 1,2, Azad, Pusa-9, Malveey-Vikas, Chamtkar, PDA-11) and complete moong (var. Pant-1, Narendra-1, PDM-54, Samrat and Asha) in Barabanki, Faizabad and Ambedkarnagar districts of Eastern Plain Zone of Uttar Pradesh utilizing the realized and expected rainfall. Intercropping of Moong or lobia with Arhar can also be undertaken. Continue sowing of ladies finger and lobia in Gorakhpur, Raibareilly and Sultanpur districts.
  - Undertake nursery sowing of cauliflower ( Japanese, Pusa Synthetic, Pusa Snowhall and Patna), Cabbage [Golden Acre, Pride of India, Pusa Mukta (Sel – 8)] and Knol Khol (White Vienna)in Jhansi district of Bundelkhand zone of Uttar Pradesh.
  - Under prevailing humid weather condition there are chances of attack of red beetle in vegetables and jassids and Thrips in ladies finger in Bundelkhand Zone of Uttar Pradesh. Spray Nimbisidin @ 2 litre or Monocrotophos @ 1 litre per 800 litres of water for red beetle and for control of Jassids and Thrips, spray Dimethiate 30 EC @ 800 ml in 800 litres of water per hectare.
  - Under prevailing humid weather condition there are chances of attack of stem borer in maize in Ballia and Deoria districts of Eastern Plain Zone of Uttar Pradesh. Apply Linden 6% @ 20 kg or Carbofuron granules 3% , 20kg or Linden+Carbaryl (4:4 G) 25 kg per hectare on a non rainy day.
  - Under prevailing humid weather condition, there are chances of incidence of blast disease in rice s in Western Plain Zone of Uttar Pradesh. For control of rice blast, spray Beem @ 120 g per 200 litres of water after current spells of rain. For control of leaf eating caterpillar in vegetable, spray Di-corovas @ 1ml per litre of water after current spells of rain.
  - Under prevailing humid weather condition, there are chances of incidence of yellow mosaic in soybean in Bundelkhand and Central Plain Zone of Uttar Pradesh. For control, spray Dimethoate 30EC @ one liter per 800 litres of water per ha after current spells of rain.
- **Rajasthan:**
  - Continue nursery sowing of cauliflower (Pusa hybrid-2, Improved Japanese, Pusa Shubhra and Pusa Himjyoti) in Flood Prone Eastern Plain Zone of Rajasthan after current spells of heavy rain.
  - Undertake nursery sowing of mid season cauliflower( Japanese, Pusa hybrid-2 and Himjoyti) and sowing radish (Pusa Chetki) in Arid Western Plain Zone of Rajasthan after spells of heavy rain.
  - Due to hot and humid weather condition there are attack of mealy bug on okra in Flood Prone Eastern Plain Zone of Rajasthan. To control spray a solution of Acephate 70 SP @ 1 g or 3 ml Profenophos per litre water after current spells of rain.
  - Due to warm and cloudy weather condition, there are attack of pod borer in *kharif* pulses in Transitional Plain Zone of Inland Drainage of Rajasthan, to control spray Quinalphos 25 EC 1 litre / ha. just after the start of pod formation stage.
  - Due to warm and cloudy weather condition, there are chances of girdle beetle & Semilooper on soybean in Southern Humid Plain Zone of Rajasthan. To control girdle beetle spray Dimethoate 30 EC @ 1 litre/ha and spray Profenophos 50 EC @ 1.0 lit/ha to control semilooper after current spells of rain.
- **Horticulture**
  - Hot and humid weather is favourable for the attack of fruit fly in guava in Intermediate Zone of Jammu & Kashmir. For control of fruit fly, harvest fruit when still hard, destroy fallen fruits and use bait. Install fruit fly traps in orchards.
  - Under prevailing humid weather condition, there are chances of incidence of scab in apple in Mild Hills Sub-Humid Zone of Himachal Pradesh. Apply Ziram or Captan @ 600ml per 200 litres of water 15-20 days before harvesting in clear weather.
- **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. 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]



### *Transplanting of Rice*

### *Sugarcane*

### *Okra*

### *Soybean*

- **Realised Weather:** Rain/thundershowers occurred at many places over Konkan & Goa; at a few places over Madhya Maharashtra. Weather remained mainly dry/dry over rest parts of the region. Maximum temperatures were below normal by 2-5° C at many places over Maharashtra and near normal over rest parts of the region.
- **Weather Forecast:** Rain/Thundershowers would occur at most places over Konkan & Goa and Gujarat State during the period. Rain/Thundershowers would occur at most places over Vidarbha during next 24 hours; at many places on 3<sup>rd</sup> September and at a few places thereafter. Rain/Thundersowers would occur at many places over Marathwada during next 24 hours and over Madhya Maharashtra during next 48 hours and at a few places thereafter.
- **Weather Warning:** Heavy to very heavy rainfall would occur at a few places with isolated extremely heavy falls over Gujarat region and Saurashtra & Kutch on 2<sup>nd</sup> September. Heavy to very heavy rainfall would occur at a few places over Konkan & Goa on 2<sup>nd</sup> September and over Gujarat region and Saurashtra & Kutch on 3<sup>rd</sup> and 4<sup>th</sup> September. Heavy rainfall would occur at isolated places over Vidarbha on 2<sup>nd</sup> September and over Konkan & Goa on 3<sup>rd</sup> and 4<sup>th</sup> September.
- **Weather Outlook:** Increase in rainfall intensity over West India. Rain/thundershowers would occur at many places along west coast.
- **Advisories:**
  - **Maharashtra:**
    - As rain/thundershowers would occur at most over Konkan & Goa along with isolated heavy rainfall during the period, rain/thundershowers would occur at many places over Madhya Maharashtra on 2<sup>nd</sup> and 3<sup>rd</sup> September, over Marathwada 2<sup>nd</sup> and over Vidarbha on 2<sup>nd</sup> and 3<sup>rd</sup> September along with isolated heavy rainfall on 2<sup>nd</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to avoid water stagnation in Konkan & Goa and Vidarbha.
    - In Konkan, maintain water level upto 5 cm in main rice field. Drain out excess water from the rice, finger millet & vegetable fields.
    - In Madhya Maharashtra, continue planting of *adsali* sugarcane utilising the current rains and conserve rain water for future use. Maintain the water level of 5 cm in transplanted rice field. Undertake intercultural operations like weeding and fertilizer application in sugarcane, vegetables and in late sown cotton, jowar, redgram, soybean and sunflower after current spells of rain.
    - In Marathwada, as rain occurred at most places and is expected at many places, in unsown areas, sowing of contingency crops like sesame, sunflower and pigeon pea may be continued. Undertake rainfall harvesting methods by making furrows in cotton, soybean and jowar fields.
    - In Vidarbha, to avoid wilting in cotton & soybean, drain out excess water from crop field & drenching of Copper Oxychloride solution @30g per 10 litres water may be done after current spells of rain. Maintain water level upto 3-5 cm in transplanted rice fields. In West Vidarbha region, it is advised to plan for early *rabi* red gram (C-11, ICPL-87119) and early *rabi* sesame (N-8). Maintain water level upto 5 cm in already transplanted rice field in East Vidarbha.
    - Due to cloudy and rainy weather in Western Maharashtra Scarcity Zone there may be more incidence of thrips & blight in onion; spray Carbosulfan 10 ml + Mancozeb @25 g per 10 litres water with 10 ml sticker by hand pump after current spells of rain.
    - Due to cloudy & high humid weather, there may be leaf curl in chilli in Central Vidarbha Zone; spray Propineb @15 g per 10 litres water after current spells of rain.
  - **Gujarat:**
    - As rain is likely to occur at most places of Gujarat State with heavy to very heavy rainfall at a few places during the period with isolated extremely heavy falls on 2<sup>nd</sup> September, postpone irrigation, intercultural operations and application of fertilizers and plant protection measures in standing crops. Provide adequate drainage in standing crops to avoid water stagnation.
    - Undertake rain water harvesting for future use.
    - Due to cloudy weather condition, heavy attack of thrips is noticed in cotton in North Saurashtra Zone; spray Ethion

20 ml or Acephate @15 g in 10 liters of water after current spells of rain.

- Due to high humidity, there is chance of attack of viral disease transmitted by jassid in chilli in South Gujarat Heavy Rainfall Zone; spray Methyl-O-Dematone or Dimethoate @ 10 ml / 10 liters water after current spells of rain. Eradicate infected plant from the fields and destroy them completely.
- **Animal Husbandry**
- Keep fodder in safe places to avoid spoilage due to heavy rain.