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Status of monsoon and contingency plans for some rainfall deficit/excess areas

During 1st June to 22nd September, the country as a whole experienced 11% deficit rainfall, which is considered as normal. Except Northwest India, all other regions have received normal rainfall. Rainfall was deficit by 21% over North-West India, 6% over Central India, 5% over Southern peninsula and by 14% over East and North-East India. East and Northeast India received heavy rainfall during last week. Current rainfall status and contingency plans for major rainfall deficit regions in the country are given below.

Haryana

As the deficit rainfall situation continues (55% deficit), crop diversification is advocated and short duration mung bean (MH 421, SML 668) or maize or fodder crops as per local demand/ market are suggested in place of paddy.

- Continue sowing of mustard (RH-30, RH -819, RB-24, RB 50, RH- 781 and Varuna) and chickpea (C-235, H-208 and HC-1).
- Undertake plantation of new orchard with expected rainfall during last week of September
- Apply irrigation to pearl millet and recently transplanted fruit crops through micro irrigation system.
- Undertake hoeing in guar and pulses for conserving soil moisture. Alternate wetting and drying in rice fields and irrigation is advised in alternate rows in sugarcane in case of shortage of water for irrigation.

Uttar Pradesh

Rainfall is deficit by 41 and 54% in Eastern and Western UP, respectively.

East Uttar Pradesh

- Undertake transplanting of cauliflower (60x60 cm row spacing), brinjal (75x60 cm row spacing), cabbage, tomato and chilli and planting of fruit crops in Raibareilly, Amethi and Sultanpur districts of Eastern Plain Zone.
- Undertake sowing of toria @ 4kg seed per hectare in Fatehpur, Pratapgarh, Allahabad, Chitrakut, Kaushambi , Agra, Mathura, Lucknow and Kanpur districts of Central Plain Zone; varieties like Sangam, TL-17, 67 in Western Plain Zone and continue sowing of toria (T-9, T-36, Bhavani, Pant -30,303, 507) at a row spacing of 30 cm in Raibareilly, Amethi, Sultanpur, Deoria and Ballia districts of Eastern Plain Zone and Central Plain Zone.
- Sowing of early varieties of potato like Kufri Chandramukhi, Ashoka in Central Plain Zone is also recommended.
- Sowing of ladies finger and lobia in Gorakhpur, Raibareilly and Sultanpur districts may be continued.
- Top dressing of urea fertilizer in paddy crop at panicle initiation stage in Faizabad, Kannauj, Mathura, Agra, Kanpur district is advised.

West Uttar Pradesh

- Sowing of pigeon pea (Bahar, Narendra 1 and 2) + pearl millet (NDFB 3) + blackgram (Ajad) or Pigeon pea (Bahar, Narendra 1 and 2) + Sorghum (Varsha, CSH 13 and 23, Bundela) is recommended.
- Planting of fruit crops like mango, papaya, lemon, amla, etc. in Jhansi district of Bundelkhand Zone is suggested. Second top dressing of urea @ 20 kg + Zinc Sulphate @ 5 kg per hectare in rice is also suggested.
- Select maize hybrid as Ganga-2, 5, 7 or composite as Kishan , African tall and Vijay or indigenous variety Type-41 for fodder.
- Undertake weeding in standing crops like rice, maize, sorghum, pigeon pea, black gram and green gram.

Punjab

Rainfall situation is deficit in the state so far (48%). Following recommendations are given.

- Sowing of toria and early varieties for potato is recommended.
- Transplant tomato seedlings for autumn-winter crop.
- Sowing of leguminous and non-leguminous crops in mixture to improve the nutritive value of the fodder i.e. maize + cowpea, sorghum + guar is advised
- In Western Plain Zone of Punjab, field preparation and sowing of short duration hybrid maize (PMH 2) is suggested.
- In Undulating Plain Zone of Punjab, continue nursery sowing of mid-season cauliflower, desi varieties of radish, carrot and turnip.
- Adopt moisture conservation practices like hoeing, weeding, mulching in crops like sugarcane, maize, cotton to reduce the evapotranspiration losses and to conserve moisture for rabi crops.

Maharashtra

The rainfall status of Marathwada remains deficit (37% deficit). Madhya Maharashtra and Konkan regions received near normal rainfall with 1% and 3% deficit, respectively. Vidarbha region has received normal rainfall (11% deficit) so far. Contingency plan for Marathwada region is as follows:

Marathwada

- Undertake intercultural operations in cotton, soybean, red gram and sunflower.
- Continue plucking of already matured green gram and black gram pods.
- Soybean is at flowering stage. For better growth, spray Urea @ 20 g per 10 litres of water.
- Plan for sowing of rabi crops like sorghum and safflower.

Telangana

The rainfall deficit of the state is 30% so far.

- In Adilabad, Karimnagar and Khammam districts, continue gap filling with survived hills (split into individual tillers), wherever the rice fields were inundated and the crop was damaged earlier.
- Undertake intercultural activities in cotton to create better aeration.
- Maintain optimum water level in rice fields.
- Plan for rabi crops like sorghum, Safflower, Sunflower.

Arunachal Pradesh, Assam & Meghalaya, NMMT

- In Central Brahmaputra Valley Zone of Assam, complete nursery sowing of cole crops and early radish. Undertake weeding in sesame. Nursery sowing of winter brinjal (Pusa Kranti, Pusa Purple Long, Pusa Purple Cluster, Pusa Bhairav, JC-2, BWR-12) may also be undertaken.
- In Hill zone of Assam, replanting or gap filling with seedlings of sali rice of similar age should be done within 7-10 days of transplanting. Land preparation for sowing of sesame (AST-1, Gauri, Vinayak) may be continued.
- In Lower Brahmaputra Valley Zone of Assam, transplanting of 25-30 days old seedlings of mid cauliflower, early cabbage, knol khol in the main field may be continued. Sowing of black gram (T-9, T-27, Pant U-19, T-122) and green gram (T-44, Kopergaon, K-851, ML-56, ML-131) may be continued. Sowing of garlic may be undertaken. Weeding and thinning in already sown sesame crops may be undertaken.
- In Upper Brahmaputra Valley Zone of Assam, transplanting of 25-30 days old seedlings of mid cauliflower, early cabbage, knol khol in the main field may be continued. Sowing of black gram (T-9, T-27, Pant U-19, T-122) and green gram (T-44, Kopergaon, K-851, ML-56, ML-131) may be completed. Weeding in sali rice may be undertaken.
- In Barak Valley Zone of Assam sowing of jute for seed purpose may be continued. Nursery sowing of mid cauliflower, early cabbage and knol khol may be undertaken. Sowing of bottle gourd may be undertaken.
- In North Bank Plain Zone of Assam nursery sowing of mid cauliflower, early cabbage, brinjal, tomato, carrot, spinach, beet, raddish and knol khol may be undertaken. Weeding and thinning in pulse crops may be undertaken.
- 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. Mulching can be done with locally available weed biomass, maize stalk, etc. Land preparation for sowing of potato and peas may be undertaken.
- In Manipur, in kharif rice, maintain water level of 5-8 cm. Continue raising off-season tomato nursery under poly houses. Preparation of nursery for onion may be continued. Continue preparation of main field for transplanting from raised cole crops nurseries (cabbage/ cauliflower/ broccoli). Sowing of French bean, broad bean and pea may be undertaken. Recommended varieties for French bean are – Pant Anupam, Anupam and Tangkhul Hawaii (local), for broad bean, plant local variety and for pea, Arkel or Azad may be planted. Weeding in soybean, groundnut and black gram may be carried out.
- In Mizoram, nursery preparation for cabbage, cauliflower, broccoli and knol khol may be continued. Carry out weeding in rice, maize, cowpea, turmeric and ginger field.
- In Mild Tropical Plain Zone of Tripura, weeding in aman rice may be carried out. In raised nursery beds sowing of winter vegetable like tomato, cauliflower, cabbage, broccoli is in progress.

Note: The above is a general overview for the states. However, ICAR (CRIDA) has prepared district level contingency plans (covering all farming situations within the district) and placed in the websites of the Ministry of Agriculture & Cooperation, Government of India (www.agricoop.nic.in) and CRIDA (www.crida.in) for further details.