



# *National Agromet Advisory Service Bulletin*

based on

## **Extended Range Weather Forecast**

Valid for 24<sup>th</sup> September to 7<sup>th</sup> October 2015

Date of Issue: 24<sup>th</sup> September 2015

**Issued by**

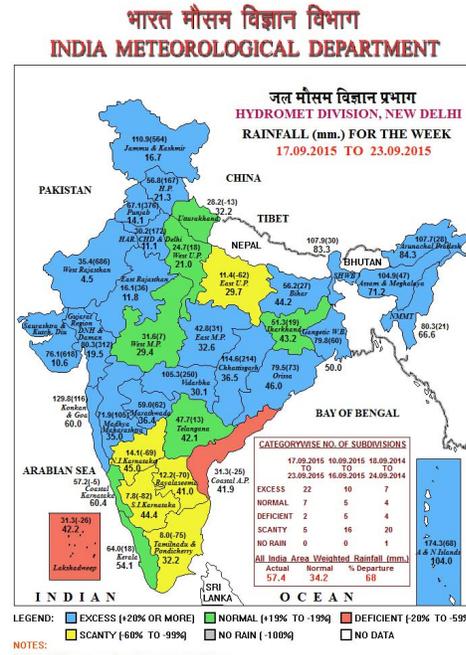
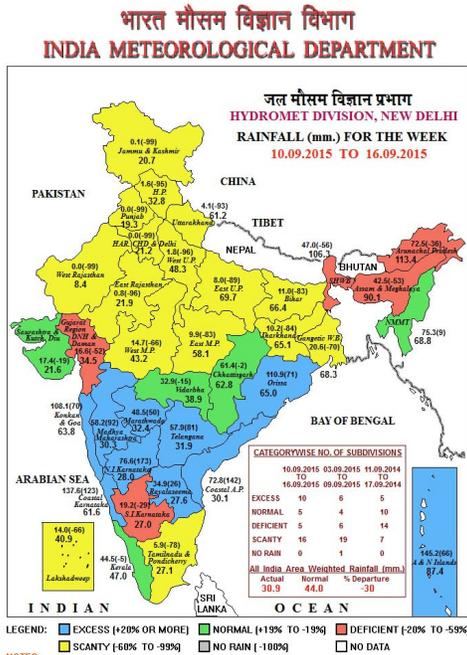
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## Realized Rainfall (10<sup>th</sup> to 23<sup>rd</sup> September 2015)

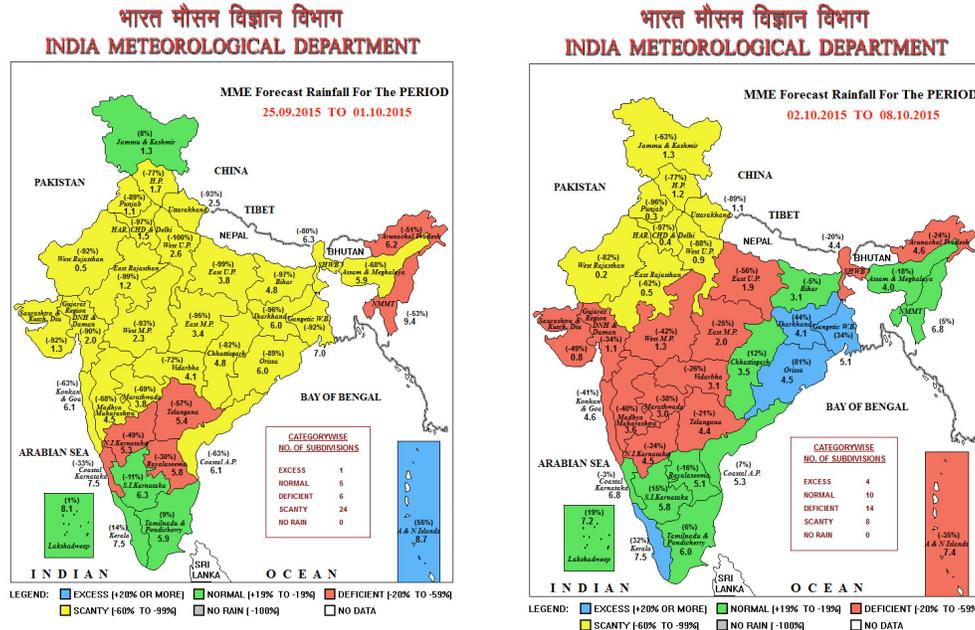


- Normal or above normal rainfall would occur during next fortnight over Nagaland, Manipur, Mizoram, Tripura, Odisha, Chhattisgarh, Maharashtra, Saurashtra & Kutch, Coastal Karnataka and Kerala.
- Normal or above normal rainfall would occur in either of the next two weeks in Jammu & Kashmir, Himachal Pradesh, West Uttar Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Rajasthan, Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Bihar, Jharkhand, Madhya Pradesh, Gujarat region, North Interior Karnataka, Andhra Pradesh and Telangana.
- Below normal rainfall would occur during the next two weeks over East Uttar Pradesh, South Interior Karnataka and Tamil Nadu.

# Extended Range Forecast System

## Subdivisionwise rainfall forecast map for the next 2 weeks (IC =23 September)

### Rainfall forecast (mm/day) (25 September – 8 October 2015)



- Normal or above normal rainfall would occur during next fortnight over South Interior Karnataka, Tail Nadu and Kerala.
- Normal or above normal rainfall would occur in either of the next two weeks in Jammu & Kashmir, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Gangetic West Bengal, Bihar, Jharkhand, Odisha, Chhattisgarh, Konkan & Goa and Andhra Pradesh.
- Below normal rainfall would occur during the next two weeks over Himachal Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim Arunachal Pradesh, Madhya Pradesh, Madhya Maharashtra, Marathwada, Vidarbha, Gujarat State, North Interior Karnataka, Coastal Karnataka and Telangana.

### Strategic Agricultural Planning based on rainfall during next two weeks till 7<sup>th</sup> October

Rainfall occurred over Nagaland, Manipur, Mizoram, Tripura, Odisha, Chhattisgarh, Maharashtra, Coastal Karnataka, Kerala, Jammu & Kashmir, Himachal Pradesh, West Uttar Pradesh, Uttarakhand, Punjab, Haryana & Delhi, Rajasthan, Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Bihar, Jharkhand, Madhya Pradesh, Gujarat state, North Interior Karnataka, Andhra Pradesh and Telangana during last fortnight. Rainfall will be mainly over southern peninsula and extreme north India during week 1 (25.09.2015 to 01.10.2015). Rest of India will be deficient to scanty; rainfall will increase over southern peninsula and also over the eastern states of India (particularly over Odisha, CAP, GWB, Chhattisgarh, Bihar, Jharkhand, Assam etc.) during week 2 (02.10.2015 to 08.10.2015).

Over the regions like **Marathwada, North Interior Karnataka** and **Madhya Maharashtra**, either sowing of crops was poor or the already sown crops have experienced moisture stress situation due to deficient rainfall during earlier weeks. However, most parts of these regions received good rainfall during last couple of weeks which may be beneficial for taking early *rabi* crops. Over **Central Plain Zone, Undulating Plain Zone** and **Sub-Montane Undulating Zone** of **Punjab** and **Western Zone** of **Haryana** standing crops are under moisture stress condition during last couple of weeks.

**In consideration of poor rainfall situation in Marathwada, North Interior Karnataka, Madhya Maharashtra and Uttar Pradesh during earlier weeks and receipt of good rainfall during last few weeks in Marathwada, North Interior Karnataka and Madhya Maharashtra, following agricultural activities are suggested.**

#### **Marathwada**

- Sowing of early *rabi* jowar (Parbhani Moti, Phule Mauli, Phule Vasudha, Phule Anuradha), safflower (Parbhani-12, Parbhani-40, Phule Kusum, Sharda), sunflower (Morden or SS-56) or rainfed gram (Vishawas, Vijay, Vishal, Dig-Vijay or BDN-9-3).
- Maintenance of 5-7 cm water level in transplanted rice.

#### **North Interior Karnataka**

As there is improvement in rainfall situation in North Interior Karnataka due to good rainfall during last few weeks and likely occurrence of rainfall during next couple of weeks, following agricultural activities are suggested.

- Sowing of *rabi* crops like sorghum, safflower, sunflower, chick pea and horse gram.
- Sowing of sorghum (DSH-4, M-35-1, Muguthi, DSV-5), safflower (A-1) and niger (No. 71, RCR-18) in North East Transition Zone.
- Sowing of short duration, drought resistant crops and variety (*rabi* sorghum: Maldandi, Muguthi; chickpea: A-1, JG-11, Jaki-9218; safflower: A-1) in North Dry Zone.
- Adoption for intercropping systems instead of sole crop, so as to overcome the failure of crops during soil moisture deficit situation. (*rabi* sorghum + chickpea (2:1 row proportion); chickpea + safflower (4:2 row proportion), wheat + safflower (7:1 row proportion)) in North Dry Zone.
- Adoption of wider row spacing (120-135 cm) in sunflower in rainfed situations.

#### **Madhya Maharashtra**

- Sowing of early *rabi* jowar (Maldandi-35-1, Phule Mauli, Phule Vasudha, Phule Anuradha), safflower (Bhima, Phule Kusum, Sharda or Girma), sunflower (SL- 11) and Chick pea (Vikas).
- Transplanting of mid-season onion (Rangda Kanda).
- Rain water harvesting in unsown areas and water reservoirs.
- Follow proper soil and water conservation practices for in-situ water conservation in *rabi* season.

#### **Uttar Pradesh**

##### **East Uttar Pradesh**

- Mulching should be done as to check the evaporation losses.
- In areas under moisture stress condition, where *khari* crops were lost, preparation for sowing of early *rabi* crops can be taken.
- Life saving irrigation in cereals, pulses and oilseed crops to be taken up to maintain proper moisture.

- Proper moisture in paddy at PI/milking stage should be ensured.
- Intercultural operation to conserve soil moisture.
- Emphasis on drip/ sprinkler irrigation.
- Soil and water conservation should be adopted properly.
- Under moisture stress condition, adopting the crops of low water requirement and short duration preferably catch/ cash crops.
- Ensuring supply of water in canals to tail end land and prevent more number of diversion to reduce the seepage loss and tenable to reach the water at tail end point.
- In Central Plain Zone, completion of sowing of bajra, green gram, black gram and sesame and nursery sowing of cabbage, radish and tomato, transplanting of capsicum, chilli, brinjal and cauliflower and sowing of potato, pointed gourd and parwal under optimum soil moisture condition. Maintain 2-3 cm water in rice fields, land preparation and sowing of toria (TA-9, Bhawani, PT-30 and PT-507), sowing of winter vegetables, tomato at a planting distance of 45-60 cm and high yielding varieties of radish (Kalyanpur No.1, Pusa Rashmi, Hisar Selection-1, Japani Safed, Pusa Chetaki, Pusa Himani, Pusa Deshi, Arka Nishant and Jaunpuri) under optimum soil moisture condition.
- In Eastern Plain Zone, sowing of radish, spinach, toria, pea and potato (Kufri Chandramukhi, Kufri Sadabahar, Kufri Ashoka), transplanting of cauliflower, brinjal, cabbage and tomato, planting of sweet potato and parwal under optimum soil moisture condition. Completion of sowing of fodder crops like jowar, bajra, maize, chari and lobia and long duration varieties of pigeon pea (Bahar, PDA-11).

#### **West Uttar Pradesh**

- In Bundelkhand Zone, maintenance of 5 cm water in rice fields; light irrigation in groundnut, soybean, sesame, vegetables and fodder crops.
- Transplanting of brinjal and tomato under optimum soil moisture condition.

#### **Punjab**

- Application of protective irrigation in standing crops like rice and sugarcane in Central Plain Zone, Undulating Plain Zone and Sub-Montane Undulating Zone and Undulating Plain Zone.
- Sowing of *desi* varieties of radish (Punjab Pasand), turnip (L-1) and carrot (Punjab Black Beauty, Punjab Carrot Red and PC 34) in Central Plain, Western Zone and Western Plain Zone.
- Planting of potato in Central Plain Zone.
- Planting of fruit plants viz. citrus, mango, litchi, guava, loquat, ber, *amla* and papaya in Central, Western and Undulating Plain Zone.

#### **Haryana and Delhi**

- Application of protective irrigation in standing crops like cotton, bajra in Western Plain Zone.
- Transplanting of tomato, onion chilli and early cauliflower on ridge. Completion of planting of fruits crops like acid lime, mango, jack fruit and jamun in Western Zone.
- Transplanting of *kharif* onion, chilli, brinjal, tomato and early cauliflower on ridges, sowing of radish, carrot, coriander, spinach, planting of early potato in Western Semi-Arid Zone of Delhi.

**In view of occurrence of floods in Assam during end of July and third week of August and in Gangetic West Bengal during first week of August, following agricultural activities are suggested.**

#### **Assam**

Due to continuous rain and flooding in Dhemaji, Lakhimpur, Tinsukia, Dibrugarh, Kokrajhar, Bongaigaon, Sonitpur, Barpeta, Jorhat, Goalpara, Morigaon, Cachar, Golaghat and Nagaon districts, standing crops have been affected.

- In North Bank Plain Zone of Assam, in flood affected areas –
  - Sowing of *kharif* sesame, early cauliflower and radish.
  - Completion of sowing of pulses.
- Nursery raising of cole crops and early radish in North Bank Plain Zone and Central Bramhaputra Valley Zone.
- Completion of sowing of sesame, pulses in Central Bramhaputra Valley Zone.
- Transplanting of finger millet, sowing of green gram (T44, Kopergaon, K851, ML56, ML131, SG1 (Pratap), SG21-5) and black gram (T9, T27, Pant U 19, T122, Saonia Mah (SB123), KU 301, USJD113) and winter vegetables in Lower Bramhaputra Valley Zone of Assam.
- Nursery sowing of mid cauliflower and radish in Upper Bramhaputra Valley Zone.
- Completion of sowing of kharif sesame, green gram and black gram, nursery sowing of early cauliflower and radish in Lower Bramhaputra Valley Zone.
- Draining out excess water from transplanted rice fields and other standing *kharif* crops to avoid water stagnation.
- Maintenance of proper water level in rice field by draining out excess water from rice field.
- Rice: Seedling stage: Fertilizer management- Apply 2nd split of urea in long duration varieties like Manohar Sali, Gitesh, Mahsuri etc after 20 to 30 DAT.
- Prepare to sow seeds of green gram and black gram. Green gram : T-44, Kopergaon, K-851, ML-56, ML-131. Black gram : T-9, T-27, Pant U-19, T-122 are recommended.
- Sesame: Well-drained sandy-loam soil is preferable. Seed rate: 500 g/bigha, Spacing: 30cm (row to row) X 15 cm (plant to plant). FYM @1.3 qt/bigha, Urea: SSP: MOP: 9:19:5. Improved varieties are, SP-1181(Madhabi), Gauri, Binayak, ST 1683, Punjab Tall No.1

### **Madhya Pradesh**

- Nursery sowing of early winter vegetables and harvesting of matured soybean and maize in Malwa Plateau Zone.
- Sowing of toria, sweet corn and berseem and harvesting of matured sesame, moong and urad in Kymore Plateau and Satpura Hill Zone.
- Field preparation for sowing of green vegetables like radish, fenugreek, spinach, coriander and turnip and continue transplanting of vegetables like brinjal, tomato, chilli, cauliflower and cabbage on raised bed in Bundelkhand Zone.
- Harvesting of matured green gram and black gram in Nimar Valley Zone.
- Harvesting of matured black gram, soybean and matured cobs of maize and picking of matured okra, chilli and brinjal in Jhabua Hill Zone.
- Sowing of toria and harvesting of matured black gram and green gram in Grid Zone and nursery preparation for onion and garlic in Vindhya Plateau Zone.
- Sesame: For control of leaf-spot disease, spray Mancozeb @ 1 kg/ha per 500-600 litres of water.
- Fruits: Apply recommended dose of fertilizers. Apply insecticides as per the recommendations in Guava, Pomegranate, and Citrus fruits for controlling leaf-eating caterpillar.
- Vegetables: For control of white grub in onion, apply Thimet 10 G @ 8 kg/acre.

### **West Bengal**

- Irrigation in paddy crop as to maintain proper moisture at tillering/PI stage.
- Undertake intercultural operation and mulch with crop residue to conserve soil moisture in vegetable crop field (cabbage, cauliflower, chilli, onion etc.).
- Apply protective irrigation in standing crops in case of water stress condition.

- Undertake weeding operation in crop field.
- Priority should be given for in situ/ex situ rainwater harvesting during the remainder of the season.
- Sowing of urd (T9, Pant Urd 30 and Pant Urd 19), Moong (T44, Samrat), Arhar (Bahar, Pusa 9 and Narendra Arhar 1) and Kulthi (DV 7, BR 5, BR 10, S67/26, 14,31) in uplands can be sown with available seeds in locality/seed agencies.
- In Coastal Saline Zone, hand weeding in rice at tillering stage to keep the fields weed free. Application of top dressing with neem coated urea or mud coated urea after drain out of excess water. Sowing of *vadukalai* and complete the transplanting of winter vegetables.
- In New Alluvial Zone, land preparation of early winter vegetables, nursery sowing of onion, cabbage and cauliflower.
- In Old Alluvial Zone, nursery sowing of early cauliflower and cabbage.
- There is a chance for stem fly infestation in vegetables due to low rainfall and partly cloudy weather. Spray Chlorpyrifos @ 25 ml per 10 litres of water.
- Prevailing cloudy weather is congenial for the incidence of downy mildew in cucurbits; spray Metalaxyl 8% + Mancozeb 64% @ 20 g in 10 litres of water.

**Normal agricultural activities are continued over remaining parts of the country in view of receipt of good rainfall during the season.**