



National Agromet Advisory Service Bulletin

based on

Extended Range Weather Forecast

Valid for 4th to 17th September 2015

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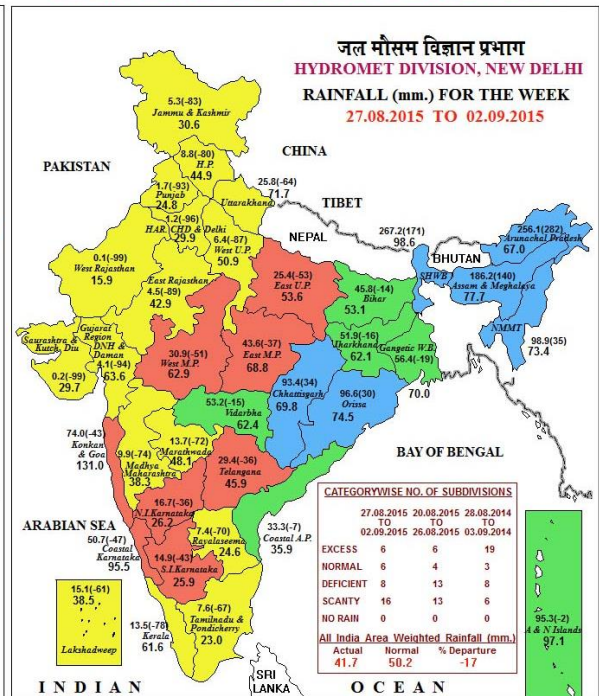
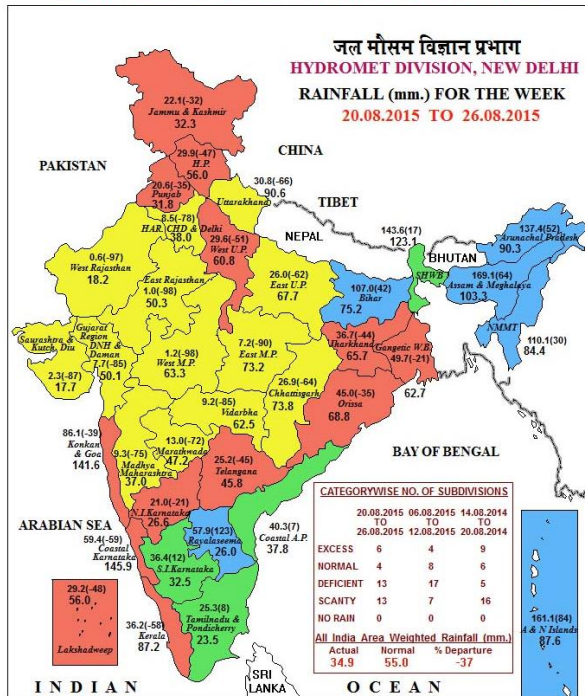
Indian Council of Agricultural Research
AICRPAM, CRIDA, Hyderabad

Realized Rainfall

(20th August to 2nd September 2015)

भारत मौसम विज्ञान विभाग
INDIA METEOROLOGICAL DEPARTMENT

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LEGEND: ■ EXCESS (+20% OR MORE) ■ NORMAL (+19% TO -19%) ■ DEFICIENT (-20% TO -59%) ■ SCANTY (-60% TO -99%) ■ NO RAIN (-100%) □ NO DATA

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NOTES:
[a] Rainfall figures are based on operational data.
[b] Small figures indicate actual rainfall [mm.], while bold figures indicate Normal rainfall [mm.]
Percentage Departures of Rainfall are shown in Brackets.

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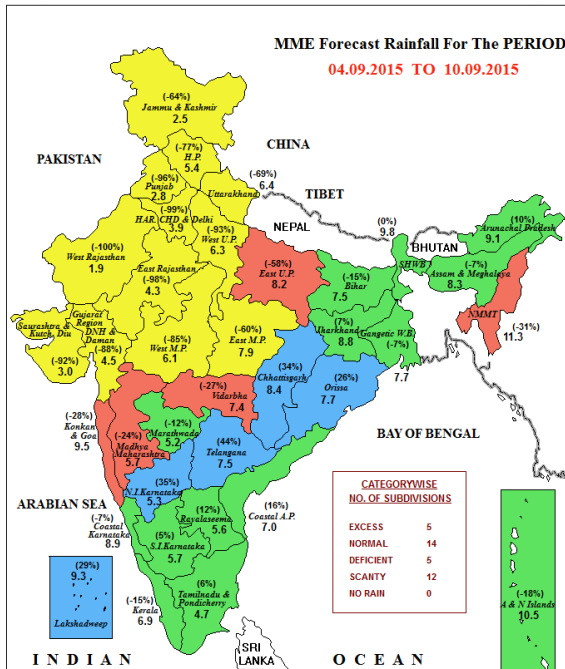
- Normal or above normal rainfall occurred during last two weeks in Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Bihar, Sub-Himalayan West Bengal & Sikkim and Coastal Andhra Pradesh.
- Normal or above normal rainfall occurred in either of the last two weeks in Jharkhand,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

Extended Range Forecast System

Subdivisionwiseraainfall forecast map for the next 2 weeks (IC =2September)

Rainfall forecast (mm/day) (4 – 17 September, 2015)

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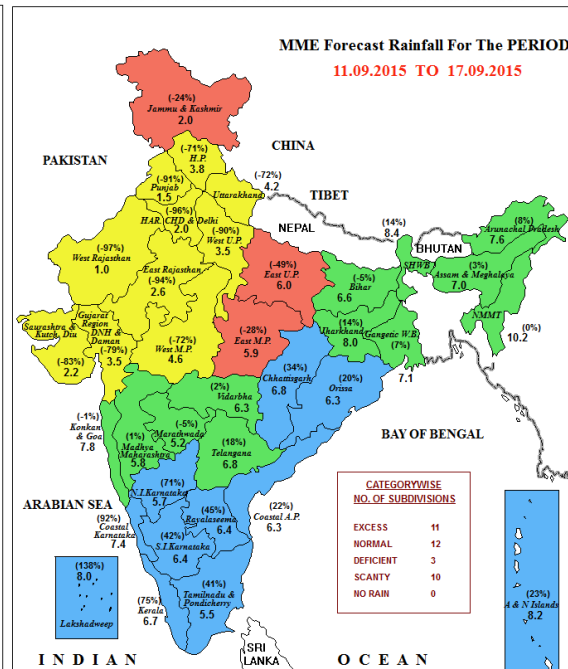


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- Normal or above normal rainfall would occur in next fortnight over Arunachal Pradesh, Assam & Meghalaya, West Bengal & Sikkim, Bihar, Jharkhand, Odisha, Chhattisgarh, Marathwada, Telangana, Andhra Pradesh, Karnataka, Kerala and Tamil Nadu.
- Normal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

Strategic Agricultural Planning based on rainfall during next two weeks till 17 September

Good rainfall occurred mainly over Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram, Tripura, Bihar, Jharkhand, Odisha, West Bengal & Sikkim, Chhattisgarh, Vidarbha, Andhra Pradesh, South Interior Karnataka and Tamil Nadu during last fortnight. However, the Southwest Monsoon has withdrawn from western parts of Rajasthan. The withdrawal line passes through Anupgarh, Nagaur, Jodhpur and Barmer.

Even though crops experienced moisture stress situation over the region like **Royalaseema** up to first fortnight of August due to deficient rainfall during earlier weeks, the situation improved due to good rainfall during last few weeks.

Over the regions like **Marathwada, North Interior Karnataka, Telangana, Madhya Maharashtra, Gujarat State and Uttar Pradesh**, crops have been still experiencing moisture stress situation due to deficient rainfall during last few weeks. There are reports of floods in some districts of **Assam** during last week and in **Gangetic West Bengal** during first week of August due to heavy to very heavy rainfall.

Northwest India will be very dry (large negative departure) and western parts of central India will also be deficient during week 1 (4-10 September). The rainfall belt will be mainly over eastern parts of the country and southern peninsula. During week 2 (11-17 September), almost similar pattern as of week 1 is likely to occur.

In view of prevailing poor rainfall situation in Marathwada, North Interior Karnataka, Madhya Maharashtra, Gujarat State, Telangana and West Uttar Pradesh and likely occurrence of good rainfall in Marathwada, North Interior Karnataka, Madhya Maharashtra and Telangana, following agricultural activities are suggested.

Marathwada

- Protective irrigation to standing crops.
- Drip irrigation to sugarcane crop and orchard crops like orange and sweet lime.
- Further sowing of *kharif* crops is also not profitable. Instead, early *rabi* crops may be undertaken in view of likely occurrence of good rainfall during next couple of weeks.
- For taking early *rabi* crops, compartmental bunding to conserve soil moisture wherever sowing is not carried out.
- Preparation of fields for early *rabi* crops like Jowar and safflower.
- There is a chance for stem fly infestation in soybean due to subdued rainfall and partly cloudy weather in; spray Chloropyriphos @ 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.

North Interior Karnataka

- Long dry spell has resulted in severe depletion of soil moisture, hampering the growth of the sown crops. However, there is possibility of rainfall during next fortnight improving soil moisture status.
 - Thinning may be done by removing alternate rows that have majority of week seedlings, as the moisture stress is severe.
 - Keep the crops free from weeds.
 - Open conservation furrow after two rows in wider spaced crops and after every 8th row in narrow spaced crops.
- Sowing of fodder crops like jowar, maize, bajra in the North East Dry Zone and North East Transition Zone.
- In view of highly deficit rainfall so far, it is essential to conserve soil moisture before the start

of *rabi* season. Compartment bunds, ridges & furrows and conservation furrows may be taken up.

- Selection of short duration, drought resistant crops and variety (*rabi* sorghum: Maldandi and Mugati; chickpea: A-1, JG-11, Jaki-9218; Safflower: A-1).
- Adoption for intercropping systems instead of sloe 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)).
- Sowing of crops across the slope.
- Adoption of wider row spacing (120-135cm) in sunflower during rainfall deficit condition in rainfed situations.

Madhya Maharashtra

- Maintenance of 5 cm water level in transplanted rice in Western Ghat (western parts of Sangli, Satara, Kolhapur, Pune, Ahmednagar, Dhule, Nandurbar and Nasik districts).
- Protective irrigation (sprinkler / drip irrigation method) in jowar, groundnut, cotton, soybean and sugarcane crops and orchards under moisture stress to conserve soil moisture during week 1 (4 Sep. - 10 Sep.).
- Light hoeing, weeding and organic mulching in newly planted orchards.
- Spraying of 2% Potassium Nitrate in *kharif* crops like soybean, groundnut, green gram, black gram, cotton and red gram.
- Further sowing of *kharif* crops is also not profitable. Instead, early *rabi* crops may be undertaken.
- For taking *rabi* crops, compartmental bunding to conserve soil moisture wherever sowing is not carried out.
- Preparation of fields for early *rabi* crops like Jowar and safflower.

Gujarat

- Due to deficit rainfall in the region, spraying of 2% Urea in transplanted paddy under below normal rainfall region.
- Maintenance of 5 cm water level in transplanted rice field.
- Protective irrigation in standing crops like pearl millet, groundnut, cotton, green gram, black gram, vegetable, castor etc. under moisture stress condition.
- Sowing of castor and sorghum in Bhal and Coastal Zone.

Telangana

- Maintenance of 5 cm water level in rice fields.
- Frequent intercultivation to control weeds and to conserve soil moisture.
- Harvesting of rain water.

Uttar Pradesh

- Due to deficit rainfall in the region, spraying of 2% Urea in transplanted paddy under below normal rainfall region.
- Mulching with crop residue to conserve soil moisture.
- Application of protective irrigation in standing crops in view of water stress condition.
- In Central Plain Zone, arrangement of seed of early potato (Kufri Chandramukhi and Kufri Ashoka) and vegetable pea (Azad-P-2 and P-3) may be undertaken for sowing as catch crop in place of damaged *kharif* crops due to deficit rainfall and high temperature condition prevailed during last week of August.
- In Bundelkhand Zone, completion of nursery sowing of early cauliflower, tomato, chilli and brinjal on raised beds and transplanting in main fields if nurseries are ready and application of

light irrigation in groundnut, soybean, sesame, vegetables and fodder crops.

- In Eastern Plain Zone, sowing of radish and spinach, planting of *kharif* onion at a distance of 15x10cm, nursery sowing of cauliflower, cabbage, tomato and chilli and sowing of okra, lobia, toria (T-9 (black), Type -36 (yellow), PT-303, 30, Narendra Toria-1, B-9 (yellow)) and completion of sowing of fodder crops like jowar, bajra, maize, chari and lobia and long duration varieties of pigeon pea (Bahar, PDA-11).

In view of improvement of condition in Rayalaseema due to good rainfall during last few weeks and likely occurrence of rainfall during next fortnight, following agricultural activities are suggested.

Rayalaseema

- Maintenance of 2-3 cm water level in rice field.
- Due to lack of sufficient rains during earlier weeks, already sown rainfed crops suffered under moisture stress situation in the districts of Rayalaseema. In view of receipt of good rainfall and likely occurrence of rainfall, sowing of contingency crops, as mentioned below-
 - Sowing of contingent crops like sorghum, cowpea, horse gram, korra, bajra in Anantpur district.
 - Sowing of contingent crops like korra in Kurnool district.
 - Sowing of red gram, castor, green gram, cowpea, sorghum, bajra and horse gram in the Southern Zone.
- Compartmental bunding to conserve soil moisture for taking *rabi* crops, wherever sowing is not carried out.
- Harvesting of rain water.

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.

- Drain out excess water from crop fields.
- In North Bank Plain Zone of Assam, in flood affected areas –
 - Cultivation of short duration HYV of rice like Luit, Kapili, Kolong, Dishang etc. These varieties can be transplanted or sown upto 1st week of September.
 - Transplanting of old seedlings of other improved long duration varieties like Monohar Sali, Salpona, Prasadbhog, Gobinbhog etc. up to mid-September.
 - Sowing of *kharif* sesame, green gram, black gram, early cauliflower and radish.
 - Late and staggered planting after receding of flood water with 60 to 80 days old seedlings of the varieties like Prafulla (80 days) and Gitesh (60 days) up to mid-September.
- In Lower Brahmaputra Valley Zone of Assam (Bongaigaon, Chirang and Kokrajhar districts), in flood affected areas, if nursery is available, undertake transplanting of short duration HYV rice varieties like Luit, Kapili, Kolong, Dishang etc., and if nursery is not available, undertake direct sowing of rice during 1st week of September.
- 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 Brahmaputra Valley Zone of Assam.

For post flood condition

- Go for wet seeding of sprouted rice after receding of flood water wherever possible with short

duration cultivars.

- In other areas, plan for sowing of green gram, lentil, early *rabi* vegetables etc.

West Bengal

12 districts in Bengal is flood-hit with heavy rain hitting the state in July and early August. Total area under cultivation damaged by the flood is 12 lakh hectares. Widespread damage to standing paddy crops occurred in Bardhaman, Murshidabad, East and West Midnapore districts. Total 243 blocks have been affected due to the floods.

Post Flood Crop Contingency Plan:

- In upland area where rice could not be cultivated, sowing of red amaranthus, spinach, coriander etc., land preparation and sowing of *vadukalai* like Kalindi and Swarna.
- In Old Alluvial Zone, undertake land preparation and sowing of black gram.
- Sow pulse crops like black gram, pigeon pea and horse gram in mid and uplands.
- Grow vegetables like cucurbits, ladies finger, brinjal, tomato etc.
- Grow maize, cow pea, sorghum hybrid napier, etc. for fodder.

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