

All India Coordinated Research Project on Agrometeorology

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Daily Crop Weather Information as on 28 September 2020

Attention: Rajiv Maheshwari, OSD, ICAR

Significant Weather Features (IMD)

- The Southwest Monsoon has withdrawn from some parts of west Rajasthan and Punjab today the 28th September, 2020. Conditions are becoming favourable for further withdrawal of Southwest-Monsoon from some more parts of Rajasthan and Punjab and some parts of Haryana, Chandigarh & Delhi, Uttar Pradesh and Madhya Pradesh during next 2-3 days.
- A trough runs from a cyclonic circulation over east Bihar to westcentral Bay of Bengal off Andhra Pradesh coast across Gangetic West Bengal and coastal Odisha at lower tropospheric levels. Under the influence of this system:
- Scattered to fairly widespread rainfall with moderate thunderstorm & lightning very likely over south peninsular India during next 3 days. Isolated heavy falls are very likely over Tamilnadu during next 2 days; over Rayalaseema, South Interior Karnataka and Kerala on 29th September, 2020.
- Dry weather very likely over most parts of the northwest India during next 5 days.
- Moderate thunderstorm with lightning very likely at isolated places over north peninsular India, Central and northeast India during next 12 hours.
- The images showing the latest satellite picture in the figure. 1.

Main Weather Observations (IMD)

- Rain/Thundershowers observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at most places over Andaman & Nicobar Islands and Arunachal Pradesh; at many places over Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, North Interior Karnataka and Lakshadweep; at a few places over Sub-Himalayan West Bengal & Sikkim, Konkan & Goa, Madhya Maharashtra, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal; at isolated places over Gangetic West Bengal, Odisha, Jharkhand, Bihar, East Uttar Pradesh, Uttarakhand, Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Rajasthan, Madhya Pradesh,

Vidarbha, Chhattisgarh, Marathwada, Gujarat region, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Coastal & South Interior Karnataka.

- Thunderstorm observed (from 0830 hours IST of yesterday to 0830 hours IST of today): at isolated places over East Madhya Pradesh, East Uttar Pradesh, East Rajasthan, Odisha, Chhattisgarh, Assam & Meghalaya, Tamil Nadu, Puducherry & Karaikal and Sub-Himalayan West Bengal & Sikkim.
- Maximum Temperature Departures as on 27-09-2020: Maximum temperatures were above normal (1.6°C to 3.0°C) at most places over Uttarakhand and Odisha; at many places over Himachal Pradesh and Gangetic West Bengal; at a few places over Punjab, Tamil Nadu, Puducherry & Karaikal, Kerala & Mahe, Konkan & Goa, East Madhya Pradesh and Haryana, Chandigarh & Delhi and at isolated places over West Rajasthan and West Uttar Pradesh. They were markedly below normal (-5.1°C or less) at many places over Arunachal Pradesh; appreciably below (-3.1°C to -5.0°C) at many places over Bihar; below normal (-1.6°C to -3.0°C) at most places over Rayalaseema, at many places over North Interior Karnataka and Madhya Maharashtra; at a few places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan, Muzaffarabad, Assam & Meghalaya, Telangana, Sub-Himalayan West Bengal & Sikkim, East Rajasthan and Andaman & Nicobar, Coastal Andhra Pradesh & Yanam and at isolated places over Saurashtra & Kutch and West Madhya Pradesh and near normal over rest parts of the country. Yesterday, the highest maximum temperature of 39.2°C was reported at Ganganagar (West Rajasthan).
- Minimum Temperature Departures as on 28-09-2020: Minimum temperatures are appreciably above normal (3.1°C to 5.0°C) at a few places East Rajasthan; at isolated places over West Rajasthan and East Madhya Pradesh; above normal (1.6°C to 3.0°C) at a few places over Punjab, Uttarakhand, East Uttar Pradesh, Jharkhand, West Madhya Pradesh, West Bengal & Sikkim, Assam & Meghalaya, Andaman & Nicobar and Lakshadweep; at isolated places over Himachal Pradesh, Saurashtra & Kutch and Tamil Nadu, Puducherry & Karaikal. They were below normal (-1.6°C to -3.0°C) at isolated places over Jammu & Kashmir, Ladakh, Gilgit-Baltistan & Muzaffarabad and Vidarbha and near normal over rest parts of the country. Today, the lowest minimum temperature of 18.4°C is reported at Belgaum (North Interior Karnataka) over the plains of the country.

Weather Warning during the next 5 days (IMD)

- 28 September (Day 1): Heavy rainfall very likely at isolated places over Andaman & Nicobar Islands, Assam & Meghalaya, and Tamil Nadu, Puducherry & Karaikal. Thunderstorm with lightning at isolated places very likely over Madhya

Pradesh, Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, north Konkan, Madhya Maharashtra, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamil Nadu, Puducherry & Karaikal.

- 29 September (Day 2): Heavy rainfall very likely at isolated places over Andaman & Nicobar Islands, Rayalaseema, South Interior Karnataka, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Thunderstorm with lightning at isolated places very likely over Vidarbha, Chhattisgarh, Andaman & Nicobar Islands, Assam & Meghalaya, north Konkan, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema, Kerala & Mahe and Tamil Nadu, Puducherry & Karaikal. Strong Winds (speed reaching 45-55 kmph) very likely over southeast and adjoining eastcentral Bay of Bengal and Andaman Sea. Fishermen are advised not to venture into these areas.
- 30 September (Day 3): Heavy rainfall very likely at isolated places over Odisha. Thunderstorm with lightning at isolated places very likely over Gangetic West Bengal, Odisha, Nagaland, Manipur, Mizoram & Tripura, north Konkan, Madhya Maharashtra, Marathwada, Coastal Andhra Pradesh & Yanam, Telangana, Rayalaseema and Tamil Nadu, Puducherry & Karaikal. Strong Winds (speed reaching 45-55 kmph) very likely over southeast and adjoining eastcentral Bay of Bengal and Andaman Sea. Fishermen are advised not to venture into these areas.
- 01 October (Day 4): Heavy rainfall likely at isolated places over Odisha and Assam & Meghalaya. Thunderstorm with lightning at isolated places likely over Gangetic West Bengal, Odisha and Nagaland, Manipur, Mizoram & Tripura.
- 02 October (Day 5): Heavy rainfall likely at isolated places over Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura. Thunderstorm with lightning at isolated places likely over Odisha, Arunachal Pradesh, Assam & Meghalaya and Nagaland, Manipur, Mizoram & Tripura.
- The weather outlook for seven days i.e., 28 Sep to 06 October 2020 forecasted (Provided by Real-Time Weather Forecasts from NOAA/NCEP collected from <http://monsoondata.org/wx2/>) rain/thundershower may occur over Some parts of Extreme northern parts of India. (Fig. 2).

Agricultural activities (AICRPAM-CRIDA)

Maharashtra (Marathwada)

Weather condition:

A total of 64.0 mm of rainfall was recorded during the week as against the normal of 56.3 mm at Agromet observatory of IGKV, Raipur. District wise average rainfall as on 16 Sept., 2020 received from IMD is as follows Balod 979.8 (941.9, +4 % Normal), Baloda

Bazar 983.9 (889.6, +11% Normal), Balrampur 1030.6 (1086.5.0, -5% Normal), Bastar 1261.7 (1094.2, +15% Normal), Bemetara 980.9 (943.1, +4% Normal), Bijapur 2206.1 (1243.4, +77% Excess), Bilaspur 1089.2 (1032.5, +5% Normal), Dantewada 1424.9 (1209.1, +18% Normal), Dhamtari 1040.8 (971.4, +7% Normal), Durg 939.3 (917.8, +2 % Normal), Gariyaband 1086.2 (1010.9, +7% Normal), Janjgir 1151.5 (1103.4, +4% Normal), Jashpur 1204.1 (1303.8, -8% Normal), Kabirdham 874.8 (792.5 , +10% Normal), Kanker 963.6 (1219.6, -21% Deficit), Kondagaon 1393.3 (1101.8, +26% Excess), Korba 1244 (1240.5, +0% Normal), Koriya 1007.2 (1067.7, -6% Normal), Mahasamund 1189.8 (989.8, +20% Excess), Mungeli 793 (910.3, -13 % Normal), Narayanpur 1290 (1131.7, +14% Normal), Raigarh 1113 (1133.6, -2% Normal), Raipur 985.5 (978.3, +1 % Normal), Rajnandgaon 892.3 (915.2, -3% Normal), Sukma 1406.9 (1034.8, +36% Excess), Surajpur 1241.9 (1055.5,+18% Normal), Surguja 768 (1152.5,-33% Deficit), Chhattisgarh State 1152.7 (1071.5, +8% Normal) *Figures out side the parenthesis indicates average district-wise rainfall revied during current year as on reporting date and figures within the parenthesis indicates normal rainfall, its percentage and rainfall situation in respective districts.

Contingency measure:

- Weather Based Agro-advisories General S. No. Crop name Crop stage Agricultural activities Weather Based Advisory Rice: Panicle initiation stage Primary panicle initiation medium and late duration rice crop 60-75 days.
- Farmers are advised to go for third dose of top dressing with urea (40 kg/ha.) fertilizer farmers are advised to go for urea top dressing only after control of insects and disease.
- Farmers are advised to go for 25% potash top dressing to increase rice grain quantity and quality. The maximum water utilization for rice crop is in panicle initiation stage (amount 25% of total water requirement of crop.) Due to shortage of water crop production is severely affected. Therefore farmers are advised to go for impounding field with 5 cm. water. flowering stage Short duration rice is in flowering stage and if 50% of flowering may occur then farmers are advised for application of third dose of Nitrogen fertilizer. The maximum water utilization for rice crop is in reproductive to milking stage (amount 50% of total water requirement of crop.) Due to shortage of water crop production is severely affected. Therefore farmers are advised to go for impounding field with 5 cm. water. Insect pest (yellow stem borer) If the adult insects of yellow stem borer are there in the rice crop, then egg groups of YSB should be destroyed. Dead hearts (dried leaves) should be taken out of plants Insecticide spray phipronil 5% S.C@ 1 liter per ha. should be made The farmers are advised to continue monitoring field if they found symptom than should go for spray of herbicides / insecticides only in clear weather and when there is no forecasting of

rains. Leaf Folder If the population of leaf folder is more than 1 or 2 per leaf, Phipronil 5 SC should be sprayed @ 800 ml per acre Blast In the rice crop at the initial stages, light violet color spots and lesions are being observed and then increase in their size and look like eye/ boat type structures. They are wide in centre and are narrow in the corners. These spots are light brown coloured in the centre. Tabuconazole 750 ml. per ha. 500 litter water/ha. Should be applied. Looking into the forecast in coming days there is possibility that night temperature will be 25°C and RH 85%. Therefore there will be less chance of spread of blast disease Farmers should be continuously monitoring in field for symptom. Bacterial Leaf Blight (BLB) Water-soaked to yellowish stripes on leaf blades or starting at leaf tips with a wavy margin leaves with undulated yellowish white or golden yellow marginal necrosis, drying of leaves back from tip and curling, leaving mid rib intact are the major symptoms of this disease. In rice fields disease can be controlled by draining off water from rice fields. After 3-4 days, 25 Kg. Potash per hectare can be broadcast for control. Spray Streptomycin sulphate + Tetracycline combination 300 g + Copper oxychloride 1.25kg/ha. If necessary repeat 15 days later. Looking into the forecast in coming days there is possibility that temperature will be 31–34°C and RH 70-85%. Therefore there is a chance of incidence of bacterial leaf blight (BLB) disease.

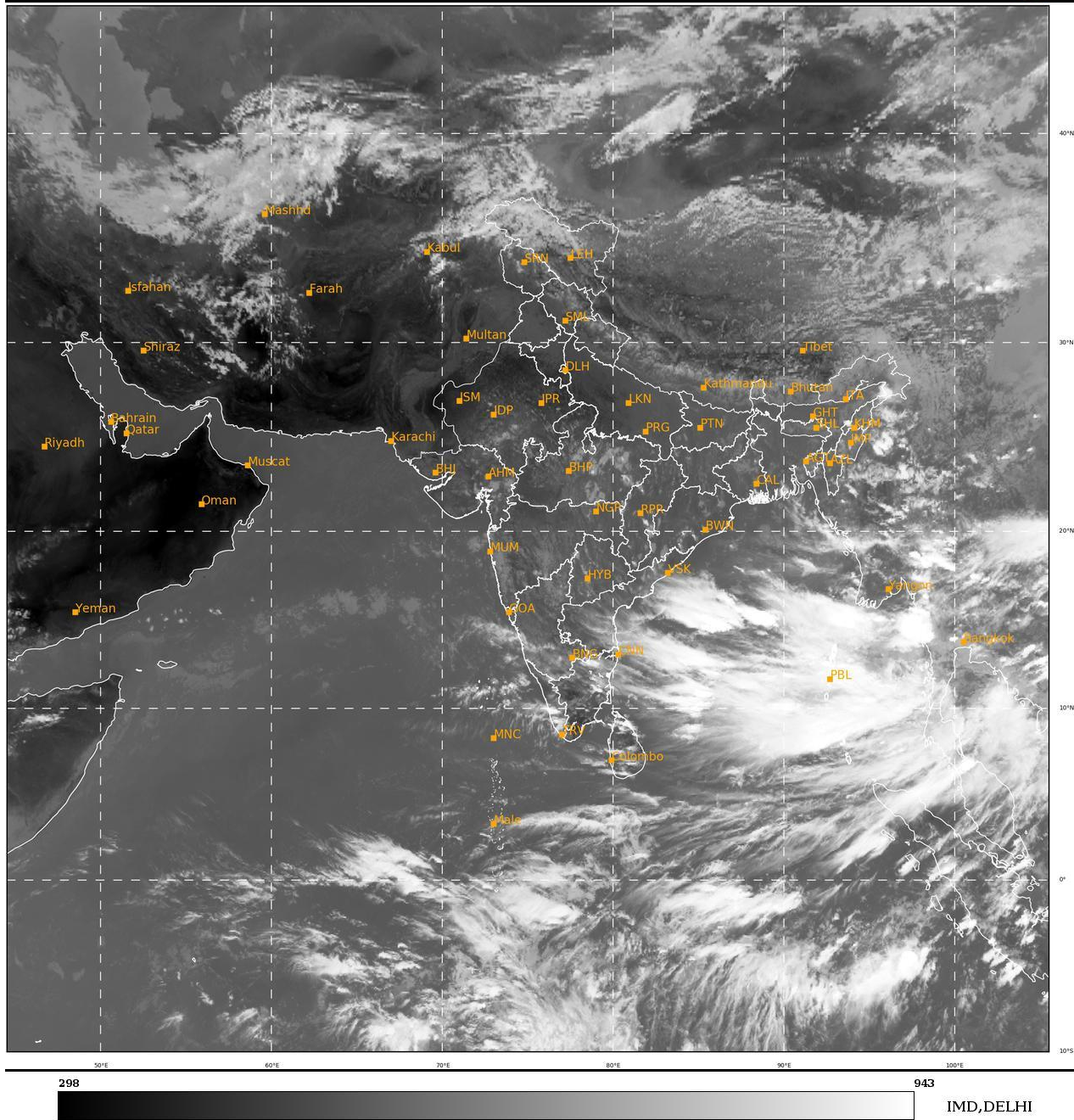
- Farmers are advised to go for suggested treatment after observation of symptom. Sheath Blight Symptoms of sheath blight in rice crop are dusty spots on rice stems and spots surrounded by violet colored patches. Farmers should spray Hexaconazole fungicide @ 1ml/ litre of water on the affected parts. If necessary, spray should be repeated after 12-15 days.
- Farmers are advised to go for suggested treatment after observation of symptoms.
- Pulses and oilseed crop Flowering to pod stage Continuous monitoring of the economically harmful insects in black gram and green gram crops should be done. First picking of matured pod should be done in black gram and green gram. As per weather forecasting there is no heavy rain, therefore the farmers are advised first picking of matured pod should be done in black gram and green gram. 04 Soybean Leaf caterpillar and Girdle Beetle If leaf caterpillar and girdle beetles is observed in soybean crop, apply Trizophos 40% EC 1 liter/ ha or Flubendiamide 39.35% SC 150 ml per ha. 500 liter water per ha. should be spray As per weather forecasting there is no prediction of heavy rain, therefore the farmers are advised that they should go for spray of fungicide/ insecticides only in clear weather.
- Fruits & Vegetables: The soil moisture content is going down slowly in the vegetable crops, therefore intercultural operation is recommended in these crops for moisture conservation. Cucurbitaceous vegetables particularly pointed gourd (Parval) is

vulnerable to fruit rotting and drying. Fields should be kept clean and copper oxychloride COC @ 4 gram per litre should be sprayed. Pruning work in fruit trees plantation should be completed at the earliest. Mid-duration cauliflower vegetable plantation should be completed. Fungicide and systemic insecticide root treatment should be done before planting. For avoiding the fruit shedding in papaya crop, Nephthalene Acetic Acid (NAA) should be sprayed @ 20 ppm.

- Animal husbandry: Don't keep the large number of animals in the shed arrange the proper place for each animal and make the air condition shed. In September months goats & sheep should be given Entoroctosimia Vaccine at the age of 6-10 weeks to lambs the disease vaccine. 3. In poultry farms, appropriate space should be kept @ 1 sq. ft. per broiler and 2-2.5 sq. ft./ layer. For protection from diarrrohea, 30 grams wormix powder dissolved in water should be given.

SAT : INSAT-3D IMG
 IMG_TIR1 10.8 um
 LIC Mercator

28-09-2020/(0800 to 0826) GMT
 28-09-2020/(1330 to 1356) IST



**Figure: 1. Latest available satellite picture as on 28 September 2020 at 1356 Hrs (IST).
 (Source: IMD).**

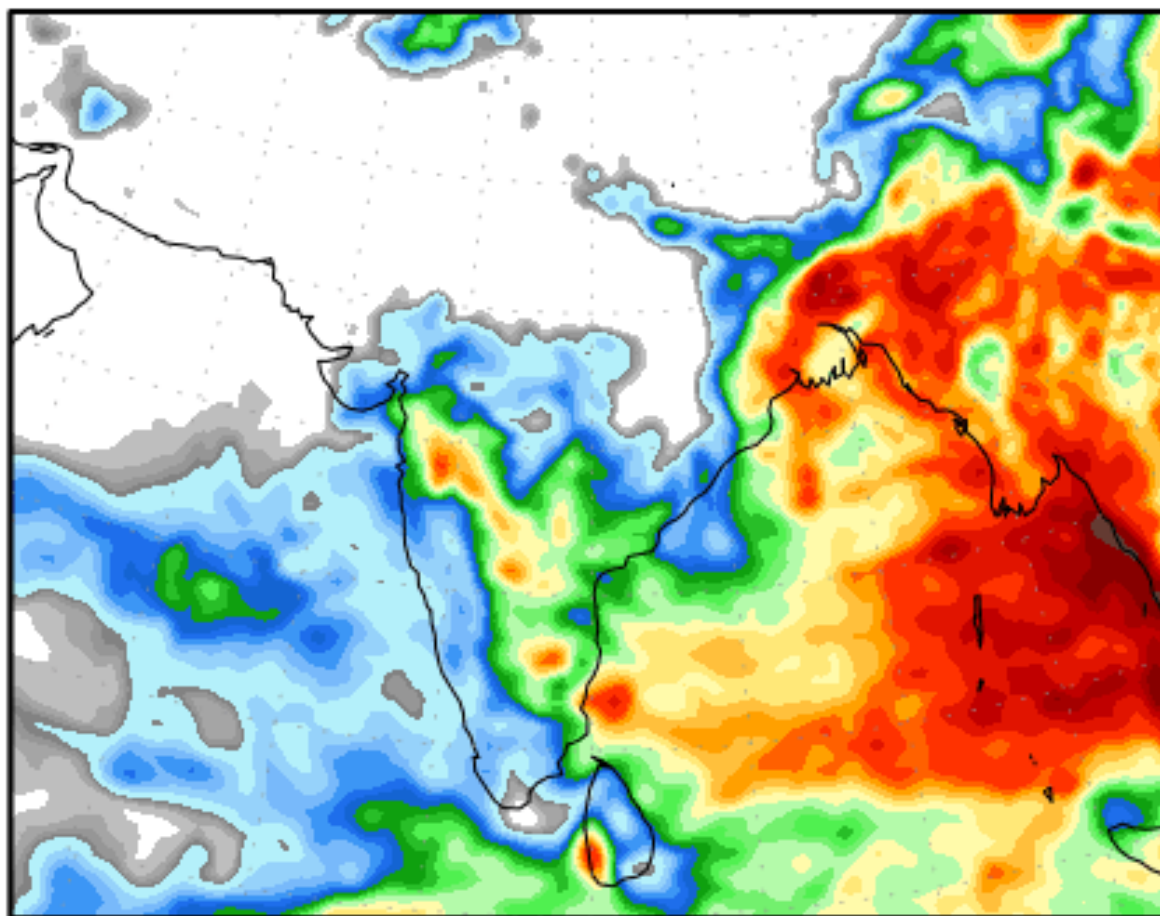


Figure:2. Precipitation forecast for 28 Sep to 06 October 2020 (Source: NOAA NCEP).

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