



National Agromet Advisory Service Bulletin
Based on
Extended Range Weather Forecast (ERFS)

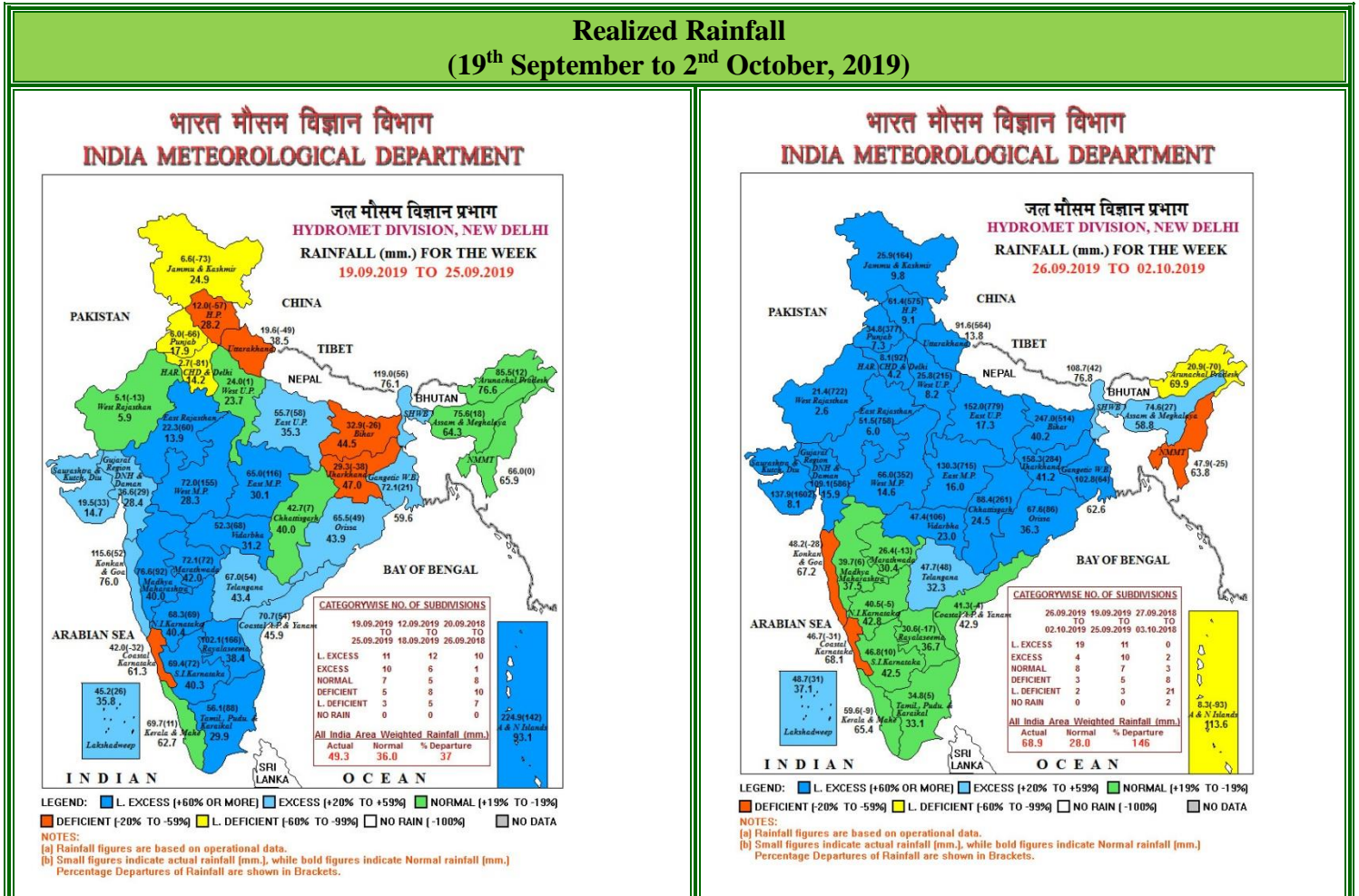
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&
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India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (19th September to 2nd October, 2019)



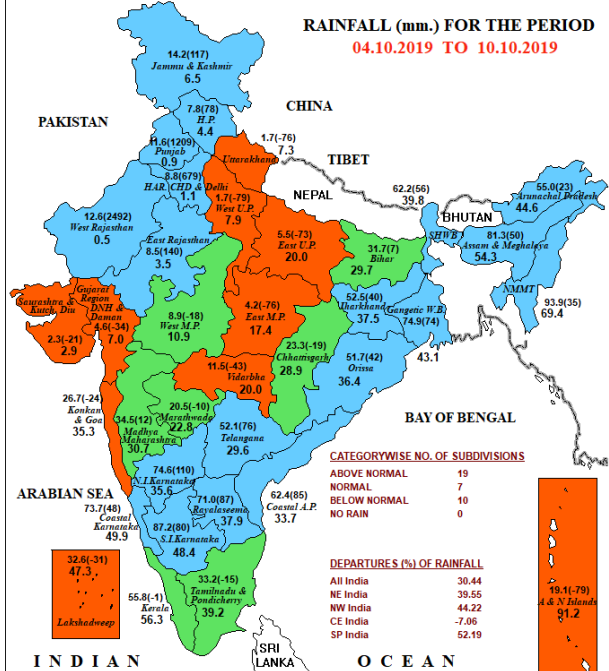
- Normal or above normal rainfall occurred in both the weeks in East Uttar Pradesh, West Uttar Pradesh, East Rajasthan, West Rajasthan, East Madhya Pradesh, West Madhya Pradesh, Chhattisgarh, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, Odisha, Assam & Meghalaya, Gujarat Region, Saurashtra & Kutch, Madhya Maharashtra, Marathwada, Vidarbha, Telangana, Coastal Andhra Pradesh & Yanam, Rayalaseema, North Interior Karnataka, South Interior Karnataka, Kerala & Mahe, Tamil Nadu Puducherry & Karaikal and Lakshadweep.
- Normal or above normal rainfall occurred in either of the two weeks in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, Bihar, Jharkhand, Arunachal Pradesh, Nagaland, Manipur, Mizoram & Tripura (NMMT), Konkan & Goa and Andaman & Nicobar Islands.
- Below normal rainfall occurred in both the weeks in Coastal Karnataka.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 02 October) (4th to 17th October 2019)

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Rainfall Forecast Map - Normal RF Based Categories

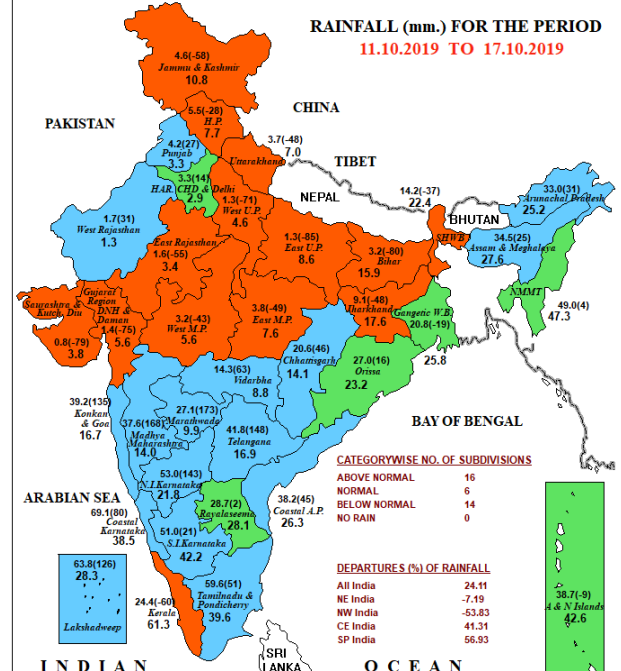


LEGEND: ■ ABOVE NORMAL (+20% OR MORE) ■ NORMAL (+19% TO -19%)
■ BELOW NORMAL (-20% TO -99%) ■ NO RAIN [-100%] ■ NO DATA

NOTES:
 [a] Rainfall figures are based on MME Forecast 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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Rainfall Forecast Map - Normal RF Based Categories

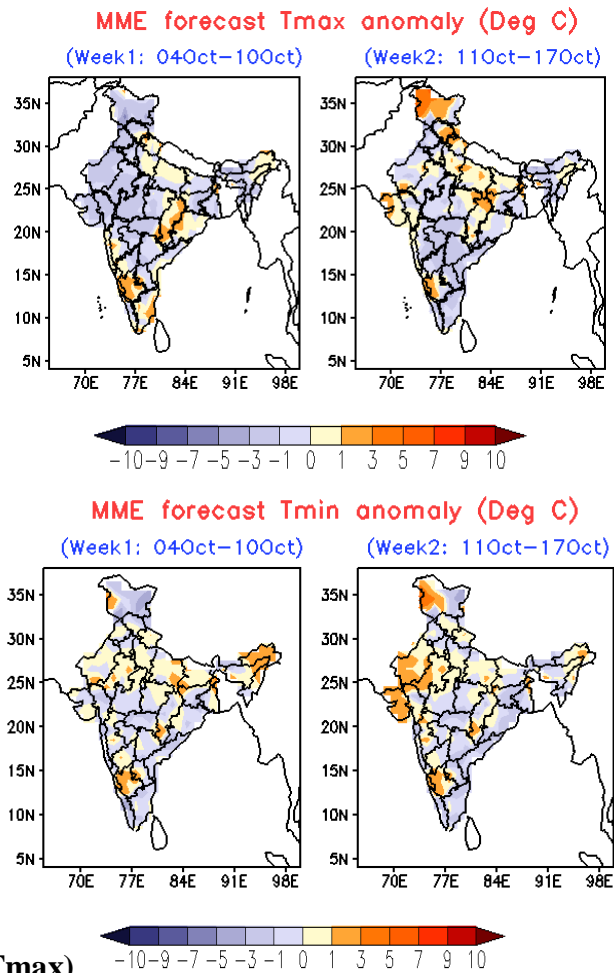


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 Percentage Departures of Rainfall are shown in Brackets.

- **Week 1 (04.10.2019 to 10.10.2019):** Though the rainfall is reduced from previous week, positive rainfall anomaly is noticed in week 1 forecast over Northwest India.
- **Week 2 (11.10.2019 to 17.10.2019):** Northwest and central India rainfall decreased substantially. However, rainfall over south peninsula increases in week 2. (Possibility of early commencement of northeast monsoon).

**Maximum and Minimum temperature anomaly ($^{\circ}$ C) forecast
for next 2 weeks (IC – 02 October)
(4th to 17th October 2019)**



Maximum Temperature (Tmax)

Week 1 (04.10.2019 to 10.10.2019) and Week 2 (11.10.2019 to 17.10.2019): Tmax anomaly is mostly negative over India during the period except some parts over Indo-Gangetic region and adjoining northern India.

Minimum Temperature (Tmin)

Week 1 (04.10.2019 to 10.10.2019) and Week 2 (11.10.2019 to 17.10.2019): Slight above normal Tmin over northern and northern-western parts of India during the period and weak negative anomaly over rest of the region.

Strategic Agricultural Planning based on rainfall during next two weeks till 17th October 2019

Agromet Advisories

Kerala

Amount of rainfall received over Kerala during the period from 01st June to 4th October 2019 is 2310.2 mm (13% normal). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is normal for week-1 and below normal for week-2.

- Due to intermittent rainfall and sunshine, there is a chance of attack of rhizome maggot in ginger. It is advised for proper drainage in the field. Also, drench the field with 2.5 ml Chlorpyrifos per one litre of water to control this pest.
- Farmers are advised for providing propping to standing banana crop as there is a chance of high wind speed in the coming days. As there is chance of Pseudo stem weevil infestation, it is advised to adopt strict phyto -sanitary measures.
- There is a chance of aphids in cowpea. Apply 2% neem oil emulsion or apply 20 g Verticillium lecanii per one litre of water in 10 days intervals. If aphid attack is severe, apply 3 ml Imidacloprid or 2 g Thiamethoxam per 10 litre of water.

Tamil Nadu

Amount of rainfall received over Tamil Nadu is 401.9 mm (18 % normal) during the period of 01st June to 4th October 2019. The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is normal for week-1 and above normal for week-2.

- In the prevailing weather condition, rhinoceros beetle and red palm weevil occurrence is noticed. Apply mixture of either neem seed powder + sand (1:2) @150 g per palm or neem seed kernel powder + sand (1:2) @150 g per palm in the base of the 3 inner most leaves in the crown.
- In the prevailing weather conditions, wilt is likely to appear in the banana. To control wilt in banana, soil drenching of Carbendazim 0.1% solution around the pseudostem at bimonthly intervals is required starting from five months after planting.

Maharashtra

Rainfall received over Madhya Maharashtra is 1166.9 mm (55% excess), over Marathwada is 590.7 mm (-12% deficit), Vidarbha is 1054.6 mm (12% normal) and Konkan region 4385.8 mm (53% excess) during 01st June to 4th October 2019. The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) over Madhya Maharashtra, and Marathwada is normal and Konkan, Vidharbha are below normal for week-1 and in week-2 Konkan, Madhya Maharashtra, Vidharbha and Marathwada is above normal.

Konkan

- Due to forecast of light rainfall, maintain 5 cm level of water in rice field where mid- late rice varieties are in grain filling stage and late rice varieties in flowering stage. Drain out water from the field where early rice varieties are in maturity stage.
- Due to forecast of no rainfall and increase in temperature, provide irrigation to arecanut orchard.

- It is advised to preserve the available green fodder by adopting silage method which helps to feed animals during the period when green fodder is not available. For this, sprinkle the prepared solution of 2 kg jaggery + half kg urea + 2kg salt in 5-6 litre of water onto 100kg finely chopped grasses. Keep the silos in shade to protect from rain and heat.

Madhya Maharashtra

- In *rabi* season, pre sowing management, arrangement for improved varieties and availabilities of fertilizers should be done along with soil testing should be done for chemical fertilizers management.
- If sufficient water is available, planting of recommended varieties of pre seasonal sugarcane should be done before mid of October.

Marathwada

- It is advised to remove excess amount of water from the banana orchard and apply 50 g Potash per plant in banana orchard. To control of Sigatoka disease in banana orchard, take a spray of Propiconazole 10 ml + Sticker 10 ml per 10 litre of water during clear weather condition.
- With increase in blood sucking flies, there is likely chance of spread of Trypanosomosis (Surra) disease in livestock. Hence, it is recommended to treat the livestock with Chemo prophylactic drug showing symptoms like circling movement, reddish eyes, discharging secretions and sudden drop in milk yield.
- It is advised to collect and destroy the infected plant parts due to leaf roller in pigeonpea crop. Spray 5 % Neem cake extract to control leaf roller in pigeonpea crop during clear weather condition. Remove excess amount of water from the field.

Rajasthan

Rainfall received during 01st June to 4th October 2019 over East Rajasthan was 919.5 mm (53% excess). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) over east Rajasthan is above normal for week-1 and below normal for week-2.

- Farmers are advised to harvest *kharif* crop at physiological maturity and vacate the field for sowing of *rabi* crops (mustard, taramira & gram) under conserved moisture.
- Start sowing of *rabi* crops where field are under sowing conditions. Use improved varieties of gram viz. Dahod yellow, GNG-146, GNG-1581, RSG-44, RSG-888, RSG-902, RSG-895 and Pratap Chana-1, Pratap raj chana, improved varieties of mustard: RGN-73, Bio-902 (Pusa Jaikisan), Aashirwad, RH9304 (Vasundhara), RH-9802 (Swarn Jyoti), RH-8812 (Laxmi), Pusa sarso-30. Use improved varieties of Taramira are: T-27, Narender tara, RTM-314.

Haryana

Rainfall received during 01st June to 4th October 2019 in Haryana 258.6 mm (-42% deficit). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is above normal for the week-1 and normal week-2.

- Due to anticipated rains, irrigation may be postponed in fodder crops and continue cutting for green fodder. Sowing of berseem may be undertaken.
- Due to rainy conditions, it is advised to postpone irrigation in vegetables and fruits and also monitor for insect-pest.
- It is advised to provide plenty of clean drinking water and green forage to the animals as per requirement. Recommended vaccination schedule may also be taken up.

Punjab

Rainfall received during 01st June to 4th October 2019 in Punjab is 444.3 mm (-5% deficit). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is above normal for the week-1 and week-2.

- Prevailing rainy and cloudy weather is favourable for the development and spread of fruit rot in chilli. Farmers are advised to give 3-4 sprays of Folicur @ 250 ml of Indofil M-45 or blitox 50 WP @ 750 g/acre at 10 days interval during clear weather.
- Due to rainy and cloudy weather conditions, there is a chance of stem borer and leaf folder infestation in basmati rice fields. If stem borer damage exceeds ETL i.e., 2 % dead hearts, apply insecticides in rice like Coragen 18.5 SC@60 ml/acre or Ferterra 0.4g @ 4 kg/acre or Padan/Caldan/Nidan 4G @ 10 kg/acre or Regent /Mortel 0.3 G @ 6 kg/acre. These insecticides also control leaf folder.
- It is advised to maintain adequate water supply particularly at tasseling and silking stages of maize. Stress at these stages causes considerable losses in yield.

Jammu

Rainfall received during 01st June to 4th October 2019 in Jammu 445.8 mm (-21% deficit). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is above normal for the week-1 and below normal for week-2.

- Due to present rainy weather conditions and further chances of rainfall, sowing of toria sarson (RSPT-1, RSPT-2, RSPR-3) intercropped with gobi sarson (GSS-1) is advised.
- Rainy weather is favourable for the attack of brown spot in basmati crop. It is advised to spray the crop with Trycyclozole @ 0.06% to control the disease.
- It is advised to pick the mature pods in moong crop to avoid shattering loss. Do not allow water to stagnate in pulse crop.

Assam

Rainfall received during 01st June to 4th October 2019 in Assam 1567.9 mm (-12% deficit). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is above normal for the week-1 and week-2.

- Due to favourable weather, there may be attack of rice hispa in some pockets of rice field. The farmers are advised to spray Quinalphos 25EC @2000 ml/ha.
- Farmers involved in the fish farming in pond can go for supplementary feeding of rice bran and mustard oil cake mixed at the ratio of 1:1. The feed mixture should be supply on feeding tray or in bags at different depth of water.
- It is advised for routine vaccination for livestock and poultry against the dreaded virus. The floor and dairy shed should be cleaned with suitable antiseptic solution and maintain a proper sanitation. Poultry growers can use the hybrid breeds of chicken like BV300, Babcock and BV 380 etc for egg production.

Uttarakhand

Rainfall received during 01st June to 4th October 2019 in Uttarakhand 960.4 mm (-18% deficit). The extended range weather forecast for next two weeks (4th to 10th October and 11th to 17th October 2019) is below normal for the week-1 and week-2.

- Mushroom growing farmers are advised to mix span@1kg per 100 kg of compost and filled it in the polythene bags@10kg per bag. Close the bag and make 10-15 holes around, put it in the mushroom growing chambers and keep the temperature at 22-25°C.
- It is advised for proper sun drying of walnut fruits before storing. Collect and store wild walnut fruits for nursery. Use Zero Energy Cool Chamber for storage of fruits. Make processed product like jam, chutney etc from damaged fruits.
 - After veterinarian consultation, the newborn calves (15 days after birth) should be fed calcium, magnesium, phosphorus zinc, iron iodine, copper elements in the form of a salt mixture or mineral drop. Timely vaccinate poultry birds.

Uttar Pradesh

Amount of rainfall received over East Uttar Pradesh is 846.7 mm (1% normal) and West Uttar Pradesh is 527.4 mm (-27% deficit) during 01st June to 4th October 2019. The extended range weather forecast provided for next two weeks (4th to 10th October and 11th to 17th October 2019) over East Uttar Pradesh and West Uttar Pradesh is below normal for week-1 and for week-2.

- If green hopper, brown hopper, leaf roller seen in paddy field, dusting of Carbofuran 3G @ 20.0 kg or Cartap hydrochloride 4G @ 18.0kg/ha. or spray Chloropyriphos 20% @ 1.5litre or Quinalphos 25% @ 1.5litre with 500 litre of water solution .
- Balanced ration should be fed to animals to maintain regularity of milk production and reproduction etc. It should be prepared with 40% grain (Maize/wheat/sorghum etc.), 30% wheat bran, 27% mustard cake, 1% common salt, 1% chalk (khadia) and 1% mineral mixture.
- It is advised to follow a regular vaccination programme in cattle, buffalo, goat, sheep and poultry to prevent the infectious diseases.

Jharkhand

Amount of rainfall received over Jharkhand is 865.6 mm (-18% deficit) during 01st June to 4th October 2019. The extended range weather forecast provided for next two weeks (4th to 10th October and 11th to 17th October 2019) over Jharkhand is above normal for week-1 and below normal for week-2.

- Under assured irrigation, farmers are advised to cultivate early potato and suggested to proceed for seeding only on ridge. Recommended varieties of potato is Kufri Ashoka and Kufri Pukhraj. Plant the seed at the distance of 40-50 cm (between row) and 15 cm (between tuber).
- It is advised to maintain the bunds of field under rice to keep submerged. Broadcast urea after 40-45 days of transplanting. However, before broadcasting weeding is must. If transplanted rice crops are attacked by blast disease (in which boat shaped brown spot appears on the leaves. The spots have ash colour in centre and deep brown stripes on margin) immediately spray the fungicide Beam @ 5 gram per 10 litre of water during clear weather.
- Under assured irrigation facility, go for sowing of pea with recommended variety Arkel, Kashi Nandani, P.E. – 6, Birsa Matar. The seed rate is 30-35 kg per acre. Before seeding, the seeds must be treated with Rhizobium culture.

Bihar

Amount of rainfall received over Bihar is 1050.4 mm (3% normal) during 01st June to 4th October 2019. The extended range weather forecast provided for next two weeks (4th to 10th October and 11th to 17th October 2019) over Bihar is normal for week-1 and below normal for week-2.

- Monitoring is advised for infestation of fruit and shoot borer in brinjal. Application of 1.0g Carbofuran 3 G per plant is advised near root zone after ten days of planting. If population of pest exceeds ETL, spraying of Spinosad 48 EC @ 1ml/4 litres of water or Quinalphos 25 EC @ 1.5ml/litre of water is advised. Infested fruits and shoots should be collected and buried before spraying.
- Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.
- Monitoring of diamond back moth (DBM) in cauliflower is advised. Under severe damage, only network of veins remains left and head formation is rarely observed. If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.

Chhattisgarh

Amount of rainfall received over Chhattisgarh is 1255.6 mm (10% normal) during 01st June to 4th October 2019. The extended range weather forecast provided for next two weeks (4th to 10th October and 11th to 17th October 2019) over Chhattisgarh is normal for week-1 and above normal for week-2.

- Blast disease is observed in many rice fields (boat like spots/lesions). Spraying of Tricyclazole fungicide @ 0.6g/litre water or Isoprothiolane @ 1ml/litre after 3 pm is advised, so that disease can be effectively controlled. The spray should be repeated after 10-12 days as per intensity of the disease.
- Weed management and cleanliness of weeds around cattle sheds, poultry sheds and ponds should be done so that flies, mosquitoes breeding is not there. Smoking should be done by cow dung cakes in cattle shed.

Odisha

Amount of rainfall received over Odisha is 1232.5 mm (7% normal) during 01st June to 4th October 2019. The extended range weather forecast provided for next two weeks (4th to 10th October and 11th to 17th October 2019) over Odisha is above normal for week-1 and normal for week-2.

- Prevailing weather conditions is highly favourable for bacterial blight/bacterial leaf streak. It is advised to spray with Plantomycin @ 200 g in 200 litres of water per acre or Streptocycline @ 30g + Copper Oxchloride @ 200 g in 200 liters of water per acre.
- Prevailing weather conditions is optimum time, for sowing of green pea in the fallow uplands. It is advised to sow high yielding varieties such as Rachana, Arkel. and T -163. It is advised that before sowing, seeds should to be treated with 2 g Carbendazim/kg seeds. Apply 10:16 :10 kg NPK/acre during final land preparation. Sow the seeds in line 30 cm apart with 10 cm plant to plant distance.

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