



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

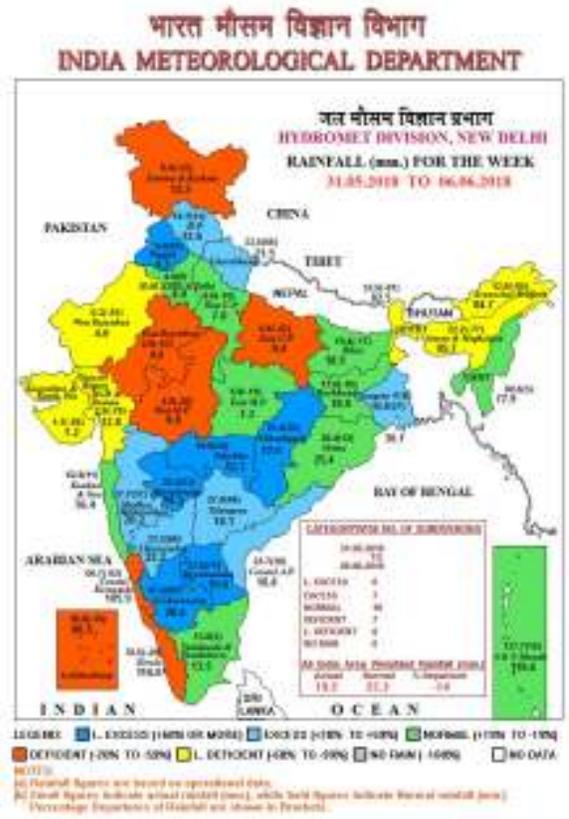
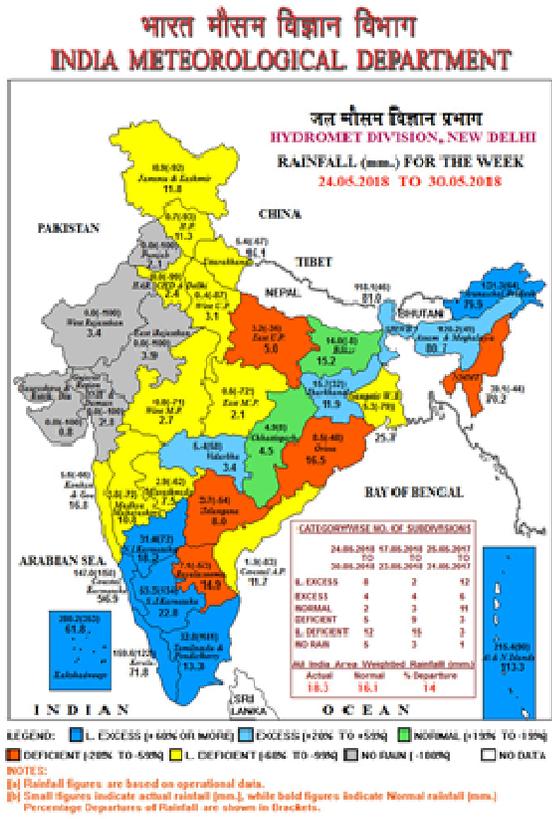
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India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (24th May to 6th June 2018)



- Normal or above normal rainfall occurred during last two weeks in Bihar, Jharkhand, Chhattisgarh, Vidarbha, South and North Interior Karnataka, Tamil Nadu and Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the last two weeks in Himachal Pradesh, Uttarakhand, Punjab, Haryana Chd & Delhi, West Uttar Pradesh, Sub-Himalayan West Bengal & Sikkim, Gangetic West Bengal, Odisha, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura, East Madhya Pradesh, Konkan & Goa, Madhya Maharashtra, Marathwada, Andhra Pradesh, Telangana, Coastal Karnataka, Kerala and Lakshadweep.
- Below normal rainfall occurred in both the weeks in Jammu & Kashmir, East Uttar Pradesh, West Madhya Pradesh, and
- No rain occurred in first week in Punjab, Gujarat and Rajasthan.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 6 June)

(8th June to 21st June 2018)



Extended Range Rainfall Forecast

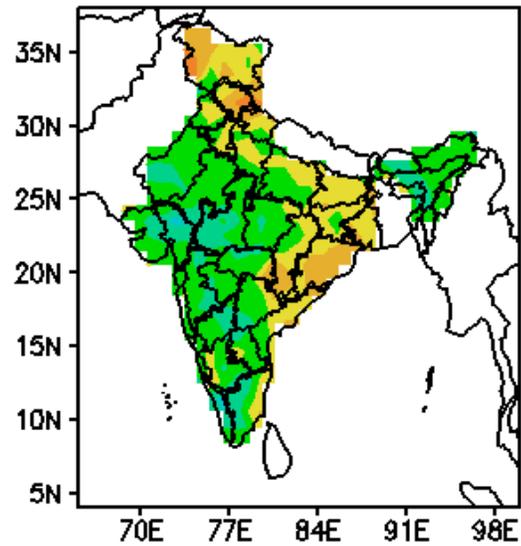
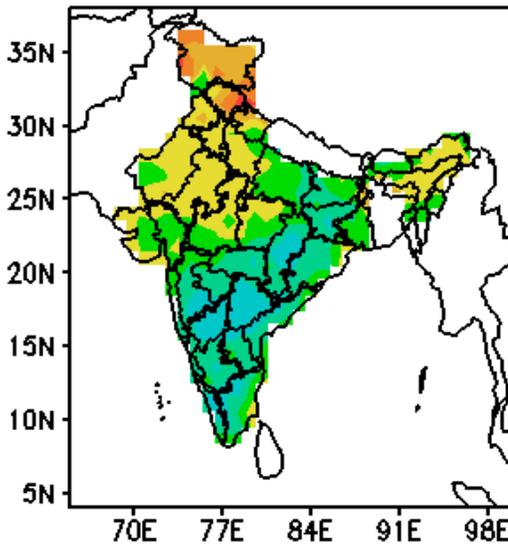
- **Week 1 (08.06.2018 to 14.06.2018):** West-coast of India including southern part of Gujarat and eastern parts (Odisha, WB, Jharkhand, Bihar and Chhattisgarh) of India likely to be active. Heavy rainfall over Konkan and Maharashtra coast is likely during the week.
- **Week 2 (15.06.2018 to 21.06.2018):** Except Northeast India and parts of southern peninsula, below normal rainfall is expected over rest of India during the week.

Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast for next 2 weeks (IC - 6 June)
(8th June to 21st June 2018)

MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 08Jun-14Jun)

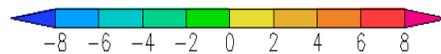
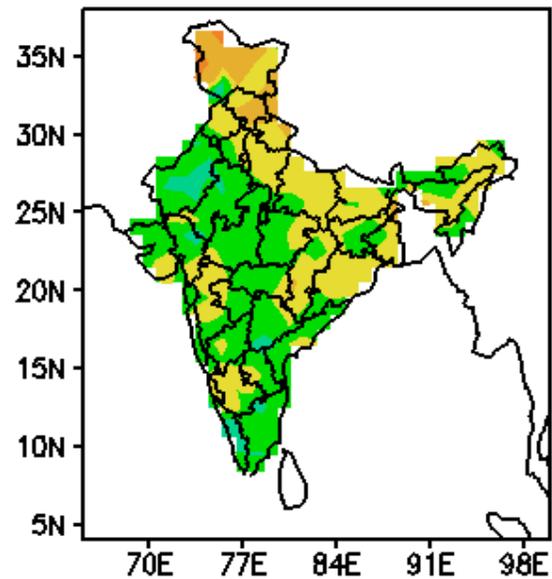
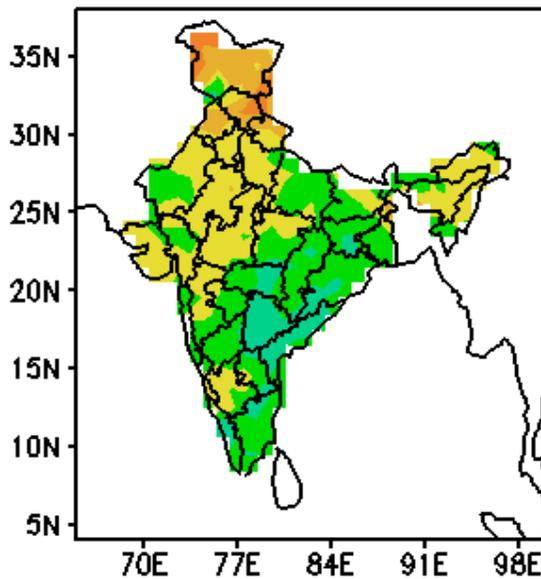
(Week2: 15Jun-21Jun)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 08Jun-14Jun)

(Week2: 15Jun-21Jun)



Tmax (Maximum Temperature)

- **Week 1 (08.06.2018 to 14.06.2018)** : Tmax positive anomaly to continue over Northwest India during the week.
- **Week 2 (15.06.2018 to 21.06.2018)**: With the likely weakening/stagnation of monsoon Tmax is likely to be above normal over eastern belt of the country during the week.

Tmin (Minimum Temperature)

- **Week 1 (08.06.2018 to 14.06.2018) and week 2 (15.06.2018 to 21.06.2018)**: Slightly above Normal Tmin over Northwest India during week 1 and over eastern and north-eastern belt in week 2.

Strategic Agricultural Planning based on rainfall during next two weeks till 21 June 2018

Agromet Advisories

Tamil Nadu

Rainfall Situation

Rainfall received during the period of 01 June to 06 June 2018 over Tamil Nadu is 13.4 mm, which is 17% excess as compared to the normal. The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) are Below Normal for week-1 and week-2.

- Prevailing weather condition is favorable for mealy bug and red cotton bug incidence in cotton. To control mealy bug farmers are advised to spray Profenophos 2 ml/litre. To control red cotton bug, spray Phosphamidon 40 SL 600 ml/ha.
- Prevailing weather condition is favorable for fruit rot and die back disease incidence in chilli. Use of disease-free seeds is important in preventing the disease. To control, spray wettable sulphur 0.2%, copper oxychloride 0.25%.
- To avoid heat stress due to high temperature on animals provide adequate drinking water and green fodder and spray water on gunny bags surrounding the cattle shed.

Kerala

Rainfall Situation

Rainfall received during the period of 01 June to 06 June 2018 over Kerala is 73.7 mm, which is 27% deficit than normal. The extended range weather forecast provided for next two weeks 08 to 14 June and 15 to 21 June are Above Normal for week-1 and Normal for week-2.

- **Banana:** Due to the pre monsoon showers, there is chance of Sigatoka disease in banana. As a precaution, Spray Pseudomonas 20g/litre. In case of severe attack spray 1 gm Bavistin by mixing it with gum in 1 litre of water on lower surface of leaf.
- **Pepper:** There is a chance of Quick wilt disease due to high relative humidity. Apply Trichoderma or pseudomonas culture in soil or 1% Bordeaux mixture can be sprayed on the leaves and small branches.
- **Coffee:** Apply fertilizers @ 85 kg urea, 150 kg rock phosphate and 66 kg potash per hectare of coffee. Leaf rust disease may become severe due to increase in relative humidity.
- **Cardamom:** Ideal time for main field planting. Take necessary phytosanitary measures to manage capsule rot (Azhukal disease) and spray 1% Bordeaux mixture (500-1000 ml/plant) before the onset of monsoon. Apply mulch and clean the drainage channels.

Karnataka

Rainfall Situation

Rainfall has received during the period of 01 June to 06 June 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka is 33.2 mm (61 % excess), South Interior Karnataka is 43.2 mm (72 % excess) and Coastal Karnataka is 49.5 mm (50 % deficit). The extended range weather forecast provided

from 08 to 14 June and 15 to 21 June over North Interior Karnataka is above normal for week-1 and below normal for week-2, over South Interior Karnataka is below normal for both the weeks and over Coastal Karnataka is above normal for week-1 and normal for week-2.

North Interior Karnataka

- Plough the land across the slope which is to be spared for sowing of Rabi crops so as facilitate better conservation of Soil and soil moisture.
- The farmers are advised to take up plant protection measures carefully mixing adhesive gum in the spray mixture in horticultural crops like Pomegranate for bacterial blight, Lime for leaf minor and watermelon for sucking pests.
- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) . Care should be taken that excess moisture is not there in the Vermin-compost pits.
- Vaccinate (ET vaccine) sheep and goats against Enterotoxemia.

South Interior Karnataka

- In mango, due to heavy downpour of rain during thunderstorm, fruit drop is observed in mango consequently fruit fly damage is also noticed. Suitable control measure by spraying Carbaryl 4 g/litre of water.
- Animal Husbandry: Vaccinate the cow against the Foot and Mouth Disease (FMD) & Black Quarter.

Maharashtra

Rainfall Situation

Rainfall received during 01 June to 06 June 2018 over different meteorological sub divisions of the state viz., Konkan: 62.6 mm (18% excess), Madhya Maharashtra: 27.7 mm (44% excess), Vidarbha: 19 mm (66% excess) and Marathwada: 35.2 mm (95 % Deficit). The extended range weather forecast provided for next two weeks viz. 08 to 14 June and 15 to 21 June are normal for week-1 and below normal for week-2 over Marathwada, over Vidarbha is normal for week-1 and below normal for week-2, over Madhya Maharashtra is Above normal for week-1 and below normal for week-2, over Konkan and Goa is Above normal for week-1 and below normal for week-2.

Marathwada

- **Cotton:** Select varieties for cultivation of cotton crop as per soil type and weather condition. Cultivation of Bt cotton varieties on black cotton soil and light soil select for non Bt cotton varieties.
- **Grapes:** Due to rainfall and cloudy weather condition occurrence of diseases may observed in grape orchard. To control this take a spray of fungicides during clear weather condition.
- **Groundnut:** Select JL-24, LGN-123, TLG-45, SB-11, AK-159, TPG-41 varieties for cultivation of Kharif groundnut.
- **Banana:** Plantation of Mrig bahar banana orchard should be done at 1.5 x 1.5 m. distance. Select varieties like Ardhapuri, Basrai, Shrimanti etc. for plantation of banana orchard.
- **Vegetables:** Sowing of seed should be done in nursery on raised bed for preparation of seedling for

cultivation of vegetable crops during Kharif season.

- **Animal husbandry:** Vaccination against Hemorrhagic septicemia and Blackquater disease should be done in cow. Due to forecast of rainfall keep animals in shed.

Madhya Maharashtra

- Undertake sowing of kharif crops only after arrival of monsoon with sufficient rainfall of 3 to 4 days.
- Farmers are advised to prepare raise beds for different vegetable seedlings for kharif season.
- For control of fruit borer in tomato, use 5 to 7 Pheromone traps per acre. For biological control of fruit borer spray 5% Neem Seed Kernel Extract.
- Always give clean drinking water to animals. For control and prevention of diseases all animals should be given vaccine and medicine in consultation with veterinary doctor.

Chhattisgarh

Rainfall situation

17.3 mm of rainfall received over Chhattisgarh during 01 June to 06 June 2018 which is 44% excess as compared to normal . The extended range weather forecast provided for next two weeks viz. 08 to 14 June and 15 to 21 June, are above normal for week-1 and below normal for week-2.

- Farmers who want to grow fruit plantation crops are advised for field preparation and digging of pits. For fruit plantation trees pits should be kept ready. Farm yard manure, termite resistant insecticide and recommended dose of fertilizers should be mixed and filled 10 cms above the ground level.
- Drainage channels in the orchards should be rectified and should be kept in well maintenance condition.
- Need based irrigation and intercultural operation should be done in tomato, brinjal, chillies, okra and other vegetable crops. Increase frequency of irrigation as per environmental temperature.
- Animals must be fed 50-60 grams of salt mixed with water
- During the summer season, water quantity should be increased for poultry by 3-4 times.
- In diet of milch animals, concentrate quantity should be increased.

Jharkhand

Rainfall situation

16.1 mm of rainfall received over Jharkhand during 01 June to 06 June 2018 which is 6% deficit as compared to normal . The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) are above normal for week-1 and normal for week-2.

- **Rice (Summer)** - Most of the crops are at maturity stage but do not harvest the crop during next few days.
- **Land preparation** - Farmers, who have not ploughed their land till now are advised to plough their field as soon as possible. However, they should have preferred the upland, so that various kharif crops may be sown immediately after onset of monsoonal rain. After first ploughing, FYM or Compost should be spread in the field followed by the next ploughing. The field having serious infestation of

termites, Neem or karanj cake may be mixed in the soil at the time of final land preparation.

- **Vegetables:** Prepare land for sowing/transplanting of rainy season vegetables. For transplanting, they should have raised the seedlings of different vegetables.

Bihar

Rainfall situation

15.2 mm of rainfall received over Bihar during 01 June to 06 June 2018 which is 11% deficit as compared to normal. The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) are above normal for week-1 and normal for week-2.

- Farmers are advised to apply nitrogen @30 kg per hectare and Furadon @33 kg per hectare in sugarcane crop following which the work of Earthing up is suggested in the crop field. Also apply irrigation upon Earthing up.
- In view of expected timely onset of monsoon in Bihar, farmers are advised to start the sowing of paddy in the nurseries. For long duration varieties of paddy, seeding upto 10 June is advised. However, for medium duration varieties, farmers can sow it during 10-25 June.
- Sowing of kharif maize varieties such as Shaktiman 1, Shaktiman 2, Shaktiman 3, Shaktiman 4, Shaktiman 5, Rajendra Shankar Makka 3 and Suwan and Deoki is recommended.
- Nursery preparation is advised for *kharif* onion. Application of FYM/compost is also advised in nursery for healthy seedlings.

Odisha

Rainfall situation

21.4 mm of rainfall received over Odisha during 01 June to 06 June 2018 which is 8% deficit over normal. The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) are above normal for week-1 and below normal for week-2.

- The weather and time is optimum for sowing of green manuring crops like Sesbania and sunhemp in the areas receiving convectional rain. Green manuring crops are sown in medium and low land condition at 6-8 weeks before planting. Use 10 kg seeds per acre. Otherwise 6 kg/acre in case of mixed planting with paddy. Sowing time should be adjusted in such a way that the crop will attain 5-week stage just at 7 days before transplanting. Apply all the recommended dose of phosphorous of rice (100 kg of SSP) to the field during sowing time.
- Farmers are advised to go for immediate harvesting of matured groundnut crop to avoid viviparous germination
- Go for summer ploughing at places receiving soaking rainfall to reduce weed infestation, to destroy eggs and larvae of hibernated soil insects and to increase soil profile recharge.

Rajasthan

Rainfall situation

Rainfall received over West and East Rajasthan during 01 to 06 June 2018 is 0.3mm (91%deficit) and 2.5mm

(37% deficit) than normal respectively. The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) for West and East Rajasthan are below normal for both the weeks.

- Keeping in view of high temperature, farmers are advised for light irrigation as per requirement in all vegetable and standing crops. Irrigation should be done in the morning hours or in the evening hours.
- Procure certified seeds for cotton sowing during the 1st week of June. The improve varieties of cotton are PA-255 (Desi cotton), WagadKalyan (American Cotton), Hybrid-8 and DCH-32(Hybrid cotton).
- Apply 8-10 tons of well rotten FYM in fields before ploughing and incorporate into soil where cotton sowing is to be done.
- Deep ploughing of fields after harvesting of Rabi crops should be done as high temperature is prevailed which is suitable for killing insect's eggs and pupae and weed seeds.
- After harvesting of *Rabi* crops farmers are advised to test their soil from certified agencies and do laser levelling in their field if required.
- Optimum moisture level should be maintained in cucurbitaceous crops by light and frequent irrigation as dry conditions may lead to poor pollination and thus drop in yield of the crop.
- Protect poultry birds from heat wave condition.

Assam

Rainfall Situation

Rainfall received over Assam is 20.7 mm rainfall (75% deficit) during 01 June to 06 June 2018. The extended range weather forecast provided for 08 to 14 June and 15 to 21 June weeks is normal for week-1 and above normal for week-2.

- **Sali Rice** : Continue the sowing of well germinated seeds of Sali rice in the nursery bed. The nursery bed should be of 10 m length and 1.25 m wide in levelled well-puddled soil. About 6-7 such beds will be required to transplant one bigha of land. Apply 20 kg FYM, 80 gm urea, 80 gm SSP and 40 gm MOP in each bed and mixed thoroughly. Around 650g to 1 kg of seeds per nursery bed is recommended. The seeds should be treated with any one of the fungicides like Thiram, Captaf or Indofil M-45 @ 2.5 gm/kg of seeds before sowing.
- **Chilli** : During this period farmers may observed circular spot as well as water soaked sunken lesions with black margin on fruits. To control these diseased, spraying of captan or captaf 5 gm/2.5 litre of water may be advocated.
- **Citrus (Assam Lemon)**: Collect local cultivar of citrus viz. Assam lemon for planting in the orchard or homestead garden. Select high land with uniform soil texture for planting. Prepare pits of 0.5m×0.5m size with a spacing of 3m×3m and refilled with soil-manure mixture (1:1) and then allowed to settle.
- **Fodder** : Rooted slips of fodder crops like Hybrid Napier, Setaria and Guinea etc may be planted due to sufficient moisture in the field. These fodder crops can also be raised as intercrop in the arecanut and coconut orchards.

- **Fishery :** As water has already started to accumulate in the ponds, stocking with fingerlings or carried over seeds of 15 cm size @ 5000 per hectare of water surface area may be advocated. For composite fish farming stocking density for different species per ha area are : Rahu 750 nos, Silver carp 1000 nos, Catla 750, Grass carp 500 nos, Mrigal 1000 nos, and Common carp 1000 nos.
- **Poultry:** Vaccinate the 4-7 days old and 35 days old birds with F1/ Lasota vaccine @ 1 drop through eye and nostril.

Punjab

Rainfall Situation

Rainfall received over Punjab is 6.9 mm rainfall (82% excess) during 01 June to 06 June 2018. The extended range weather forecast provided for weeks 08 to 14 June and 15 to 21 June is below normal for both the weeks.

- For the management of early shoot borer in sugarcane, use Tricho-cards having 20,000 eggs (seven days old) of *Corcyra cephalonica* parasitized by *Trichogramma chilonis* per acre at 10 days interval. Control the weeds from the sugarcane crop.
- To control the damage caused by tobacco caterpillar (*Spodoptera litura*) in summer moong, spray 150 ml Rimon 10 EC (novaluron) or 800 g of Asataf 75 SP (acephate) or 1.5 litres of Dursban 20 EC (Chlorpyrifos) using 100 litres of water per acre with manually operated knapsack sprayer.
- It is a good time to sow rainy season vegetables i.e. cucurbits, okra and cowpea. Complete the harvesting of onion.
- During prevailing hot and dry weather, protect cucurbits from downy mildew by spraying Indofil M-45/Kavach @ 300-600 g in 100-200 litres of water per acre at weekly interval. Under heavy disease risk situation, spray of Ridomil Gold @ 500 g at 10 days interval.
- Tomato, brinjal, okra, chilli and cucurbits crops need to be irrigated at 5-7 days intervals depending on soil and crop condition for the maximum development of fruits.
- Brinjal fruit and shoot borer attack can be checked by spraying 800 ml Quinalphos or 500 ml Triazophos or 200 ml Cypermethrin or 160 ml Deltamethrin in 100-125 ml of water per acre.

Haryana

Rainfall Situation

Haryana has received 4.9mm of rainfall during 01 June to 06 June 2018, which is 17% excess. The extended range weather forecast provided for next two weeks (08 to 14 June and 15 to 21 June) is below normal for week-1 and week-2.

- **RICE:** Apply frequent need based irrigation in rice nursery. Prepare the field for rice transplanting.
- **COTTON:** Farmers are advise to apply irrigation in sown cotton crop.

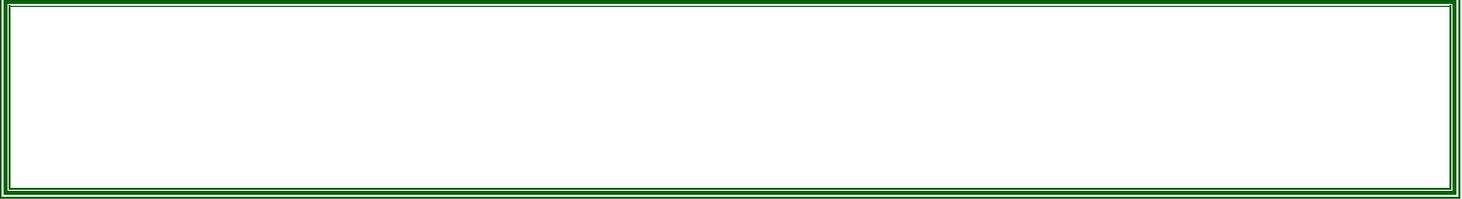
- **MOONG:** Farmers are advised to apply requirement based irrigation.
- **SUGARCANE:** Farmers are advised to apply irrigation and chemical spray.
- **VEGETABLES/ FRUIT CROPS:** Farmers are advised to apply irrigation. Keep proper management to protect the small fruit crop from heat waves.
- **LIVE STOCK:** Keep animals inside of shade while high winds and day time. Provide clean drinking water sufficiently. Give shower to animals to overcome the heat stress. Provide balanced feed.

Jammu

Rainfall Situation

Rainfall received during 01 June to 06 June 2018 over Jammu is 8.4 mm, which is 16% deficit. The extended range weather forecast provided for next two weeks (08 to 14 June (week-1) and 15 to 21 June (week-2) over Jammu is below normal for week-1 and normal for week-2.

- Farmers are advised to complete the nursery sowing of Basmati 370 and Ranbir Basmati without any further delay. Clean bunds of the field. Initiate land preparation of the fields where rice seedlings are to be transplanted and also apply the recommended quantity of well rotten FYM/Compost.
- Sowing of early sown maize under irrigated and rainfed conditions after the receipt of rains.
- To control fruit fly attack in cucurbits, use pheromone traps @ 1-2 traps/kanal. Apply malathion @ 1.5ml/.
- Prepare land for the sowing of rainy season bitter gourd, sponge gourd & bitter gourd.
- Farmers may spray imidacloprid @ 0.3ml/lt water to check leaf hopper & dimethoate @ 1ml/litre to control mango hopper.
- Spray dimethoate @ 1ml/lt to control citrus psylla, leaf miner & butterfly during clear day.



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