



National Agromet Advisory Service Bulletin

Date of issue: 12 August 2022

based on

Extended Range Weather Forecast (ERFS)

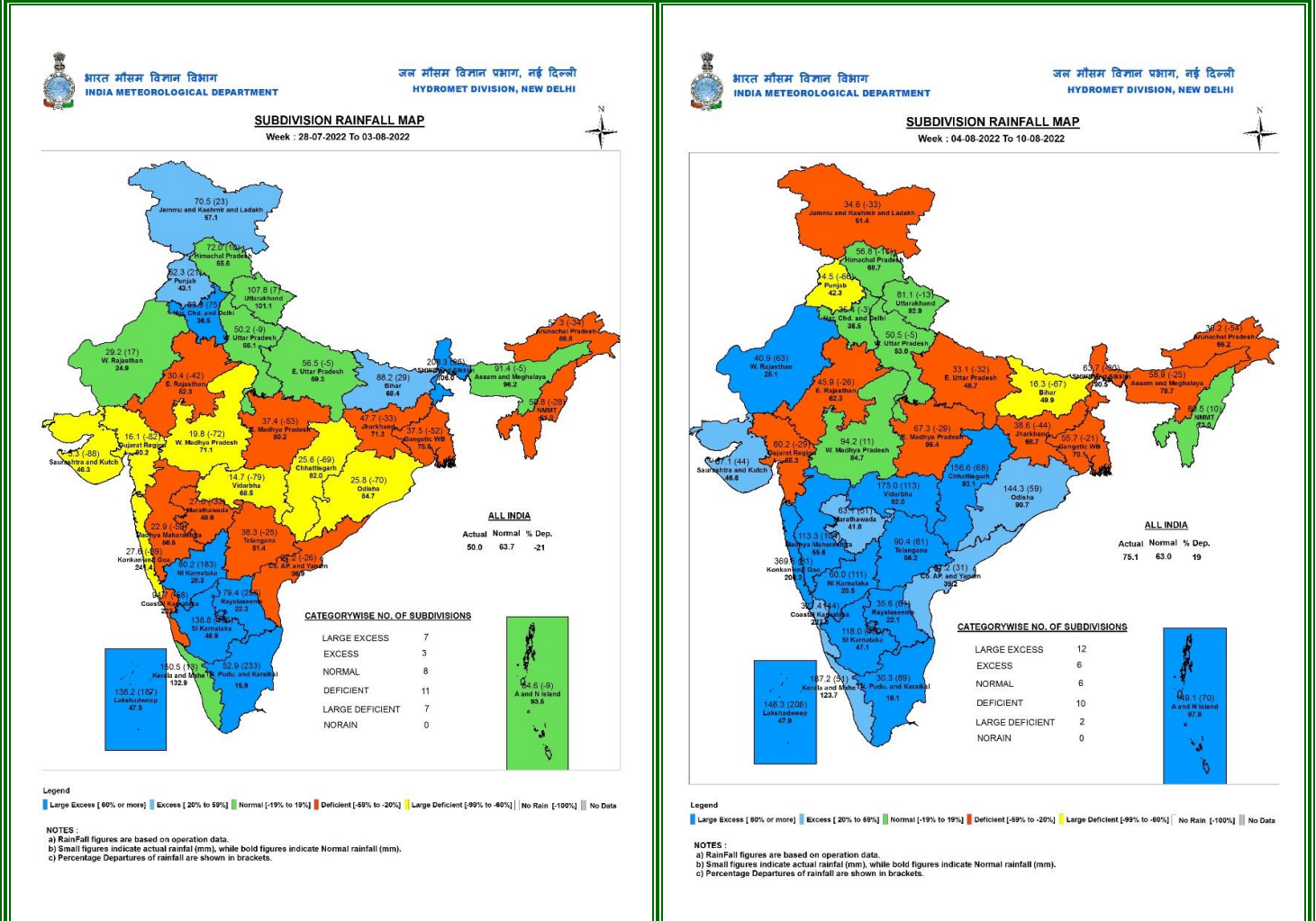
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Issued by

**AICRP on Agro-Meteorology (AICRPAM)
Central Research Institute for Dryland Agriculture (CRIDA)
Indian Council of Agricultural Research (ICAR)
&
India Meteorological Department (IMD)
Earth System Science Organization**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

Realized Rainfall (28th July to 10th August, 2022)



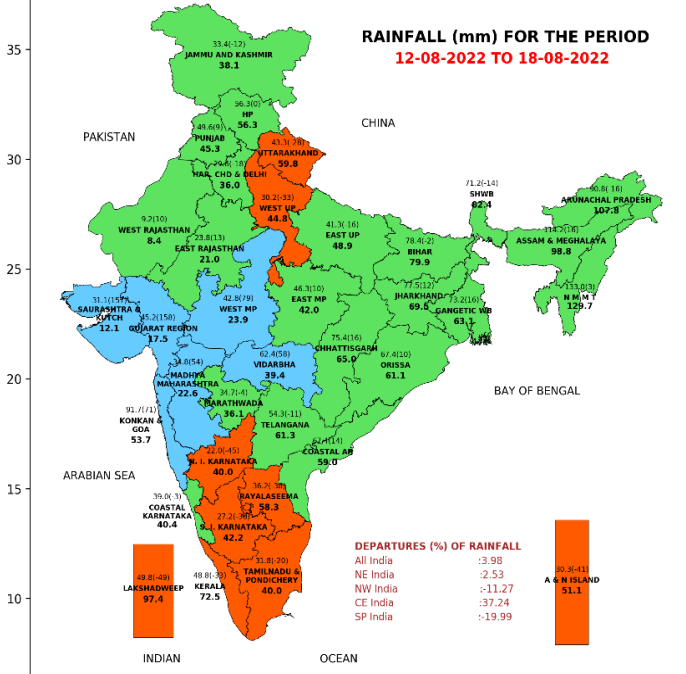
- Normal or above normal rainfall occurred in both the weeks in Himachal Pradesh, Uttarakhand, West Uttar Pradesh, Haryana Chandigarh & Delhi, West Rajasthan, Rayalaseema, Interior Karnataka, Tamil Nadu Puducherry & Karaikal, Kerala & Mahe, Lakshadweep and Andaman & Nicobar Islands.
- Normal or above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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 10th August) (12th to 25th August 2022)

INDIA METEOROLOGICAL DEPARTMENT

Rainfall Forecast Map - Normal RF Based Categories

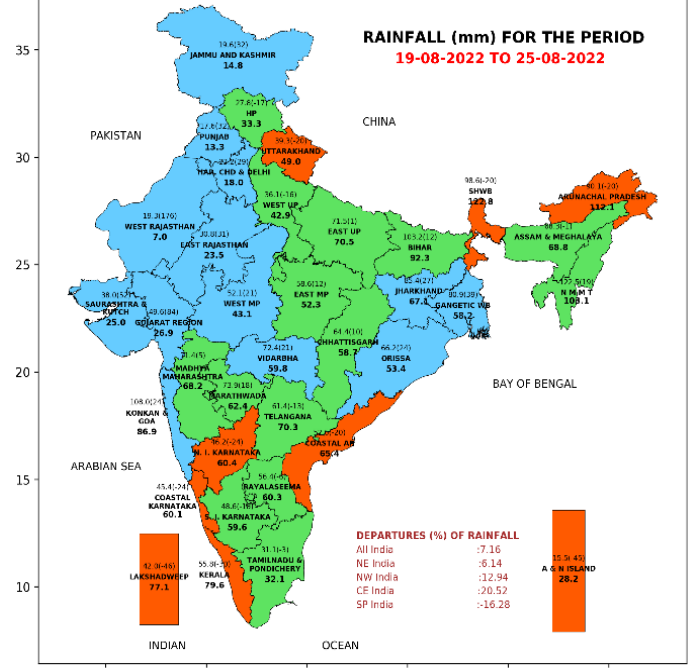


LEGEND: □ No data □ BELOW NORMAL (-20% TO 99%) □ ABOVE NORMAL (20% OR ABOVE)
■ NO RAIN (-100%) ■ NORMAL (19% TO -19%)

NOTES:
 (a) Rainfall figures are based on MME forecast data.
 (b) Small figures indicates actual rainfall (mm), while bold figure indicates normal rainfall (mm)
 Percentage departures of rainfall are shown in brackets.

INDIA METEOROLOGICAL DEPARTMENT

Rainfall Forecast Map - Normal RF Based Categories



LEGEND: □ No data □ BELOW NORMAL (-20% TO 99%) □ ABOVE NORMAL (20% OR ABOVE)
■ NO RAIN (-100%) ■ NORMAL (19% TO -19%)

NOTES:
 (a) Rainfall figures are based on MML forecast data.
 (b) Small figures indicates actual rainfall (mm), while bold figure indicates normal rainfall (mm)
 Percentage departures of rainfall are shown in brackets.

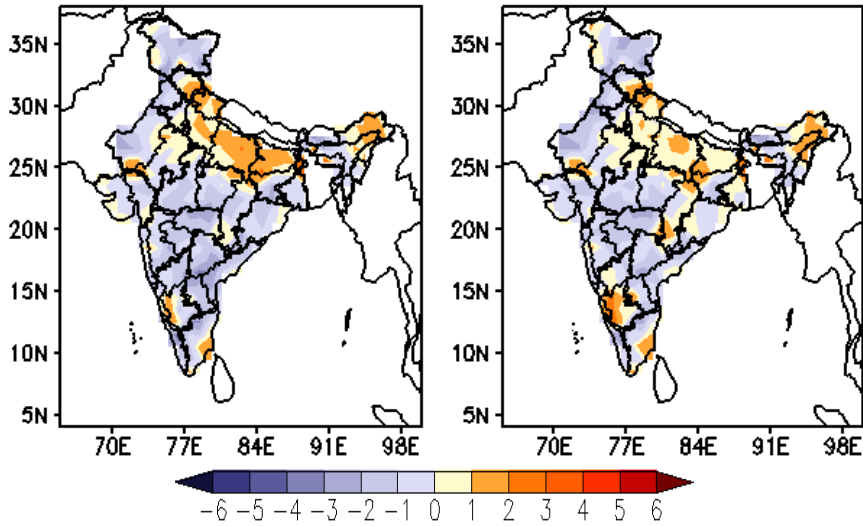
- **Week 1 (12.08.2022 to 18.08.2022):** Rainfall will be normal to above normal over central parts of India and it will be slightly below normal over Uttar Pradesh, Bihar and South Peninsula.
- **Week 2 (19.08.2022 to 25.08.2022):** Rainfall will be normal to above normal over central parts of India, Jharkhand, Bihar and Uttar Pradesh.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 10th August)
(12th to 25th August 2022)**

MME forecast Tmax anomaly (Deg C)

(Week1: 12Aug–18Aug)

(Week2: 19Aug–25Aug)



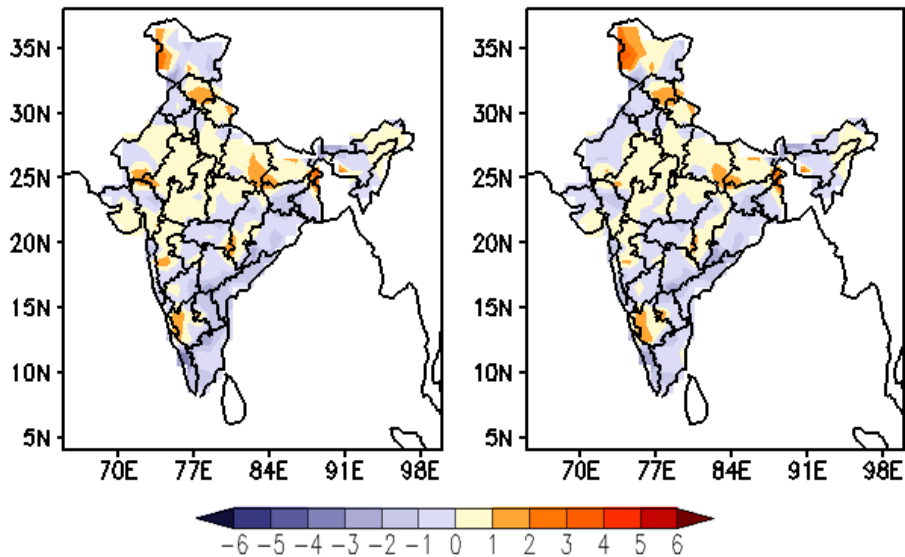
Maximum Temperature (Tmax)

- **Week 1 (12.08.2022 to 18.08.2022) and Week 2 (19.08.2022 to 25.08.2022):** Tmax will be above normal over some parts of Rajasthan, Uttar Pradesh, Bihar, Jharkhand, Odisha, Chhattisgarh and North Madhya Pradesh.

MME forecast Tmin anomaly (Deg C)

(Week1: 12Aug–18Aug)

(Week2: 19Aug–25Aug)



Minimum Temperature (Tmin)

- **Week 1 (12.08.2022 to 18.08.2022) and Week 2 (19.08.2022 to 25.08.2022):** Tmin will be close to normal over the country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 254 mm (-47% deficit) and 248 mm (-39% deficit) rainfall observed over West Uttar Pradesh during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is normal over East Uttar Pradesh and below normal over West Uttar Pradesh for week-1 and; normal over East Uttar Pradesh and West Uttar Pradesh for week-2.

Western Uttar Pradesh

- Under prevailing weather condition, sowing of late sown pigeon pea varieties like *Bahar*, *Amar*, *Azad*, *Pusa-9* etc. is advised.
- Farmers are also advised for sowing of Black Gram varieties like *Pant U-35*, *Pant U-30*, *Pant Urd-31* *Azad Urd-2*, *Azad Urd-3*, *Sekhar-1*, *Sekhar-2*, *Sekhar-3*, and *Narendra Urd-1* etc. Green Gram varieties like *Pant Moong-3,4*, *Samrat*, *Asha*, *HUM-16*, *MH-2-3*, *K.M.-2241*, *IPM-2-3*, *K.M.-2195* and *IPM-205-7* etc.

Eastern Uttar Pradesh

- For transplanting of rice till 15 August, use short duration varieties (100-110 days) like NDR 118. Transplanting to be done with 21 days old seedlings from conventional nursery or 12 days old seedlings for SRI method
- Under prevailing weather condition, sowing of improved varieties of red gram is advised with varieties *Pusa 2002*, *Pusa 2001*, *Pusa 992*, *Pusa 991* and *Narendra Arhar 2*.
- Pearl millet can also be taken up with varieties 9444, MP-7792, 86M86, BIO-448, LKBH-676, JKBH-26, Kaveri Supar Boss, GHB 905, MPMH-17, RHB-173, HHB-223, GHB-577, HHB-146, PB-112, GHB-526, GHB-558, RHB-121, Pusa 605, nandi-8, Nandi-32, Pusa 415, JBH-1
- Farmers are also advised for transplanting of chilli, brinjal and cauliflower seedlings from nursery to main field.

Jharkhand

The amount of rainfall received over Jharkhand is 372 mm (-41% deficit) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is normal for week-1 and above normal for week-2.

- In-situ moisture conservation measures covering both soil and land management practices to be practiced such as field bunding, ridges and furrows, conservation furrows, broad bed and furrow systems, mulches etc.
- Sowing needs to be done only when sufficient moisture is available in soil root zone. Unless until 50-60mm rainfall is received over a period of 2-3 days, sowing should not be carried out.
- Facility of crop insurance including weather-based insurance to be availed.

Recommended medium and short duration, drought tolerant varieties for the region are:

- Rice: Vandana, Sahbhagi, Uday 111, Aditya, Rasi, Heera, Birsa dhan101, Naveen, Shabhagi, IR- 64, Lalat, Hybrid- 6444
- Maize: Suwan, Birsa Makka 1, Birsa Vikas Makka 2, KMH 3426, HM 12, KMH 3712, Bisco x 1, P 3441, Vivek Maize Hybrid 43, Vivek Maize Hybrid 39, Vivek Maize Hybrid 25, Malviya Hybrid Makka 2, HM 9, D 994, DK 701
- Finger millet: Birsa Marua, GPU 67, VL149, A404, VR 520, BM -2
- Barnyard millet: VL Madira, VLmadira 181
- Little millet: Birsa Gundli 1, Kolab, OLM 20
- Arhar: UPAS 120, Bahar, Birsa Arhar 1, Bahar, Sharad Narndra Arhar 2 and Pusa 9
- Green gram: Pant M-4, Malviya jagriti (HUM-12)
- Black gram: Pant U 19, Birsa Urd 1, WBU 109, Azad Urd 1, Uttara, Pant U 31
- Cowpea: Pant-lobia-1, Pant lobia -2, Pant lobia-3
- Ground nut: Birsa Mungfali 2, Birsa bold-1, Ginar 3, GPBD 5, Vijetha, Mallika
- Soybean: Indira soya 9, Samrudhi, Pratap Soya 1, Pratap Soya 2, JS 97-52, Ahilya 4, Pratishta, JS 93-05, MAUS 81,
- Sesame: Amrit, Tarun
- Niger: NRS 96-1, Birsa Niger 2, JNS 9, BNS 10, Birsa Niger 1, Pooja 1, BNS 8

West Bengal

The amount of rainfall received over Gangetic West Bengal was 452 mm (-37% deficit) and Sub-Himalayan West Bengal was 1274 mm (+5% surplus) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is normal over both the sub-divisions during week-1; above normal over Gangetic West Bengal and below normal over Sub-Himalayan West Bengal for week-2.

Gangetic West Bengal

- In place of *kharif* rice, brinjal (Mukthakeshi, Makra), Chillies (Suryamukhi, Jwala), greengram (Sukumar, Samrat-PDM 84-139; IPM-02-03, Bireswar), blackgram (WBU-108-Sharada, WBU-109-Sulota, Pant U-31,19) may be taken up.
- In upland situations, alternative crops for paddy such as maize, green gram, black gram may be taken up.
- Grow medium and short duration (preferably drought tolerant) varieties suggested as below.
- Maize: Ganga-11, Bio 9681 and Suwani-1 composite KMH 218+, KMH 3426, NMH 803, HM 12, HM 9, Malviya Hybrid Makka 2, Vivek Maize Hybrid 43, Vivek Maize Hybrid 39, Vivek Maize Hybrid 25, Suwan, BirsaVikas Makka 2, Pusa Early Sakatiman 1, DK 701,

Ganga 2, Sartaj 102; Composites- Kanchan, Azad Deccan 107, Navneet

- Pigeon pea: Narendra Arhar 1, Bahar, Sharad Narndra Arhar 2, Pusa 9,
- Black gram: Pant U-31, Pant U-19, WBU-108, WBU-109,
- Ground nut: Mallika, Vijetha, Ginnar-3
- Sesame: Tilottoma, Rama, Savitri, kanke white, SWB-32-10-1

Bihar

The amount of rainfall received over Bihar is 377 mm (-38% deficit) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is normal for week-1 and week-2.

- Wherever possible, select short duration or extra short duration rice varieties.
- For transplanting till 15 August, use short duration varieties (100-110 days) like NDR 118. Transplant 21 days old nursery or 12 days old in SRI method
- In upland situations, alternative crops to paddy such as pearl millet, maize, sesame, green gram, blackgram are to be taken up.
- In-situ moisture conservation measures covering both soil and land management practices to be practiced, which includes field bunding, ridges and furrows, conservation furrows, broad bed and furrow systems, mulches etc.
- Promote sowing of legumes as intercrop or in field bunds. Intercropping of Arhar+Moong/Urd or Maize+ Moong/Urd/Arhar ensured better yields.
- Ensure application of recommended doses of NPK fertilizers.
- Foliar spray of 1-3% urea (with or without 0.5% ZnSO₄), 2% DAP, 2% 13:0:45 or 2% 19:19:19 solutions during intermittent drought and immediately after rains to rejuvenate the crops.

Some of the recommended varieties for delayed sowing are as follows;

Grow short duration preferably drought tolerant varieties recommended for the region.

- Rice: Sushak Samrat, Sahbhagi, Abhishek Rainfed Upland-Deepa, Kanchan, Prabhat, Rajendra Bhagwati, Turanta Dhan, Vandana, Vishnu; Rainfed Shallow Lowland- BR-34, Jayashri, Kanak, Malinja, Panidhan 1, Panidhan 2, Radha, Rajendra Kasturi, Rajendra Mashuri 1, R. Sweta, Rajshree, Santosh, Shakuntala, BPT-5204, Swarna sub-1; Semi Deep Water-Janaki, Satyam, Vaidehi; Deep Water-Sudha; Scented-Kamini, Rajendra Swetha, R. Suwashini, R. Bhagwati, Sugandha
- Maize: KMH 218+, KMH 3426, NMH 803, HM 12, HM 9, Malviya Hybrid Makka 2, Vivek Maize Hybrid 43, Vivek Maize Hybrid 39, Vivek Maize Hybrid 25, Suwan, BirsaVikas Makka 2, Pusa Early Sakatiman 1, DK 701, Ganga 2, Sartaj 102; Composites - Kanchan,

Azad Deccan 107, Navneet.,

- Pigeon pea: Narendra Arhar 1, Bahar, Sharad Narendra Arhar 2, Pusa 9,
- Cowpea: Kansi Kanchan, Kashi Nidhi
- Green gram: Pant M-4, Malviya Jagriti (HUM-12)
- Black gram: Birsa Urd-1, IPU-94-1, Sulata, Pant Urd -31
- Sesame: Krishna, Jawahar Til-11, TKG-22

Kerala

The amount of rainfall received over Kerala is 1284 mm (-15% deficit) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is below normal for week-1 and week-2.

- During rainy season, there is a chance of bud rot disease in coconut. As a prophylactic measure, 1% Bordeaux mixture can be sprayed on coconut crown. Pesticides should not be applied during rain.
- Propping is advised in banana plants and ensure proper drainage facilities to avoid water logging in banana gardens.

Tamil Nadu

The amount of rainfall received over Tamil Nadu is 281 mm (+91% large excess) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is below normal for week-1 and normal for week-2.

- Since dry weather is expected in week-1, farmers are advised to apply irrigation in crop fields.
- Prevailing weather condition is also favourable for mealy bug incidence in papaya. To control, it is advised to release *Acerophagus papayae* @ 100 parasitoids / field / village or block.

Maharashtra

633 mm (31% excess) rainfall over Madhya Maharashtra; 565 mm (51% excess) in Marathwada; 2329 mm (+10% surplus) in Konkan region and 866 mm (41% excess) over Vidarbha was recorded during 1 June - 11 August 2022. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Konkan, Madhya Maharashtra, Vidarbha is above normal and Marathwada is normal for week-1 and; normal over Madhya Maharashtra and Marathwada and above normal over Konkan and Vidarbha for week-2, respectively.

Madhya Maharashtra

- Due to rainfall received in the past week, farmers are advised to remove excess water from low laying areas.

- In areas where soil is affected with white grub and termites, application of phorate granules @ 15 kg per ha is recommended.
- For the control of aphids in green gram, black gram and cowpea, it is advised for spraying of Dimethoate @ 15 ml per 10 litres of water.

Konkan

- Due to very heavy realized rainfall and forecast of heavy to very heavy rainfall during next two weeks, it is advised to maintain optimum water level of 5 cm in rice field and make arrangement to drain out excess water.
- Due to forecast of heavy rainfall, it is advised to postpone the fertilizer application in fruit orchard.

Vidarbha

- Due to warning of heavy rainfall accompanied with thunderstorm and lightning forecast at isolated places of Vidarbha region, farmers are advised to postpone the top dressing of fertilizer and plant protection spray and also drain out any excess water stagnation occurring from standing crops, vegetables and orchards.
- To protect the fruit trees from thunderstorm and wind, farmers are advised for staking with bamboo.

Marathwada

- As per forecast of normal rainfall in next two weeks, it is advised to remove excess amount of water from vegetable crop fields after rainfall and postpone the spraying operations; and also provide stacking to newly planted vegetable crops.

Jammu

422 mm of rainfall (20% excess) was received over Jammu during 1 June - 11 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Jammu is normal for week-1 and above normal for week-2.

- Prevailing weather condition is congenial for, new plantation of horticultural crops like guava, ber, papaya, mango and citrus crop.
- Under prevailing weather conditions, farmers may go for intercultural operations (thinning, weeding and hoeing) at vattar condition (optimum moisture condition) keeping in view the moisture status of fields.

Assam

The amount of rainfall received over Assam during 1 June - 11 August 2022 was 1250 mm (+5% surplus). The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Assam is normal for week-1 and week-2.

- Farmers are advised to start land preparation for green gram cultivation. Select recommended varieties like *SGC 16*, *SGC 20*, *Pratap*, *Sonai*, *K 851* etc. for obtaining higher

yield.

- As there is no possibilities of getting heavy rainfall in the coming next weeks, weeding followed by application of fertilizer @ 4 kg Urea and 6 kg SSP in three months old turmeric crop may be advocated.

Karnataka

Rainfall received during 1 June - 11 August 2022 over South Interior Karnataka was 705 mm (+64% large excess) and 407 mm (+50% excess) over North Interior Karnataka and 2563 mm (+9% surplus) over Coastal Karnataka. The extended range weather forecast (rainfall) for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) is below normal over South Interior Karnataka, North Interior Karnataka and normal over Coastal Karnataka for week-1 and; normal over South Interior Karnataka and below normal over North Interior Karnataka and Coastal Karnataka during week-2.

South Interior Karnataka

- Due to continuous rainfall in past weeks, there may be more weed infestation. It is advised to go for mechanical or chemical weed control measures.
- In long-duration field crops like pigeon pea, earthing up is advised for better availability of soil moisture to the crop rows.

Punjab

The amount of rainfall received over Punjab was 294 mm (+3% surplus) during 1 June - 04 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Punjab is normal for week-1 and above normal for week-2.

- Farmers are advised not to allow the rain water to stagnant in cotton crop because it may favour incidence of Para wilt disease. The affected plants can be saved by spraying Cobalt chloride @ 10 mg per litre of water (10 ppm) immediately after the appearance of symptoms.
- Prevailing weather condition is highly suitable for planting of citrus, guava, mango, litchi, sapota, jamun, bael, amla etc.

Himachal Pradesh

The amount of rainfall received over Himachal Pradesh was 448 mm (-5% deficit) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Himachal Pradesh is normal for week-1 and; week-2.

- In low hill of the state, it is the best time for sowing of root vegetables viz., radish (*Japanese White & Chinese Pink*), turnip, carrot (*Nantes, Pusa Kesar* and *Pusa Yamdagni*) and spinach (*Pusa Harit, All Green, Pusa Bharti* and *Benerjee Giant*).
- In mid-hills of the state, transplant seedlings of mid-season cauliflower varieties.

Recommended varieties are *Palam Uphar*, *Pusa Deepali*, *F1 Megha*, *F1 Barkha* and *F1 White Excel*.

Andhra Pradesh

The amount of rainfall received over Coastal Andhra Pradesh was 389 mm (+16% excess) and over Rayalaseema was 285 mm (+41% excess) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Coastal Andhra Pradesh is normal and Rayalaseema is below normal for week-1 and; below normal over Coastal Andhra Pradesh and normal over Rayalaseema for week-2.

- In Srikakulam, Vizianagaram, Guntur and Krishna districts, current weather condition is favourable for the incidence of sucking pests in cotton. To control, spraying of Imidacloprid @ 0.3 ml/litre or Acetamiprid @0.2g/litre of water is recommended.
- In Ananthapuramu, Kurnool, Kadapa, Chittoor and Prakasam districts, farmers are advised to select the redgram varieties like *LRG-41*, *LRG-52*, *PRG-176*, *ICPL 85063* and *ICPL 87119*. The optimum sowing time for redgram is June to August.

Chhattisgarh

The amount of rainfall received over Chhattisgarh was 783 mm (+10% surplus) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Chhattisgarh is normal for week-1 and week-2.

- The present weather is suitable for planting of fruit crops like papaya, mango, guava and banana etc. and also for agroforestry plants.
- Due to the possibility of light to moderate rainfall in the coming weeks at some places in Chhattisgarh plains, farmers are advised to prepare proper water drainage channels.

Odisha

The amount of rainfall received over Odisha was 699 mm (normal rainfall) during 1 June - 11 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (12 - 18 August 2022 and 19 - 25 August 2022) over Odisha is normal for week-1 and above normal for week-2.

- In rainy season there is a chance of infestation of red hairy caterpillar in pigeon pea. To control, it is advised to apply Chlorpyrifos dust @ 10 kg per acre during morning hour.
- Due to heavy rainfall in the last week, it is advised to drain out the excess water from jute field as it affects the quality of fibre.

Disclaimer:

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