



National Agromet Advisory Service Bulletin

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based on

Extended Range Weather Forecast (ERFS)

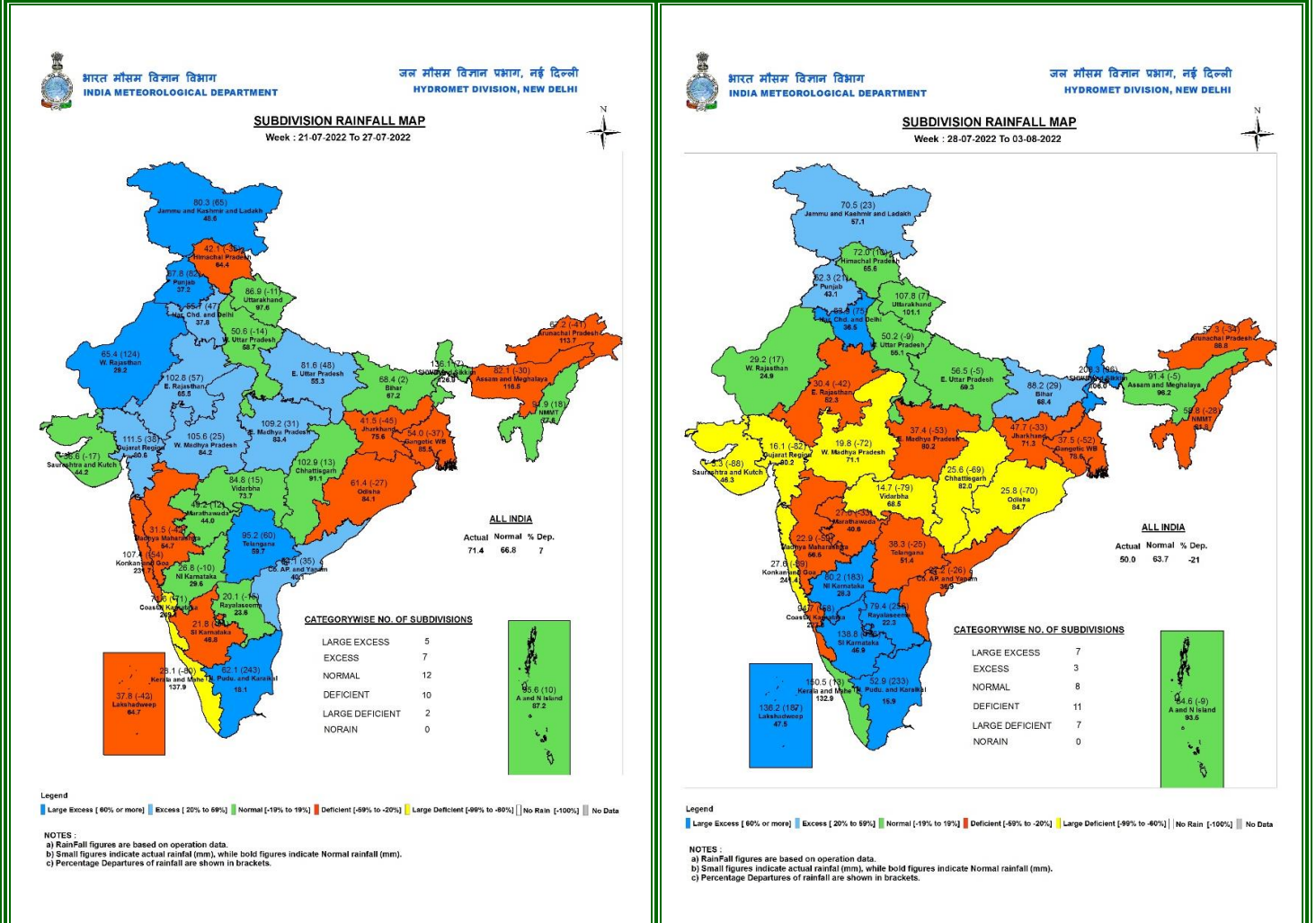
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Issued by

**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 (21th July to 3rd August, 2022)

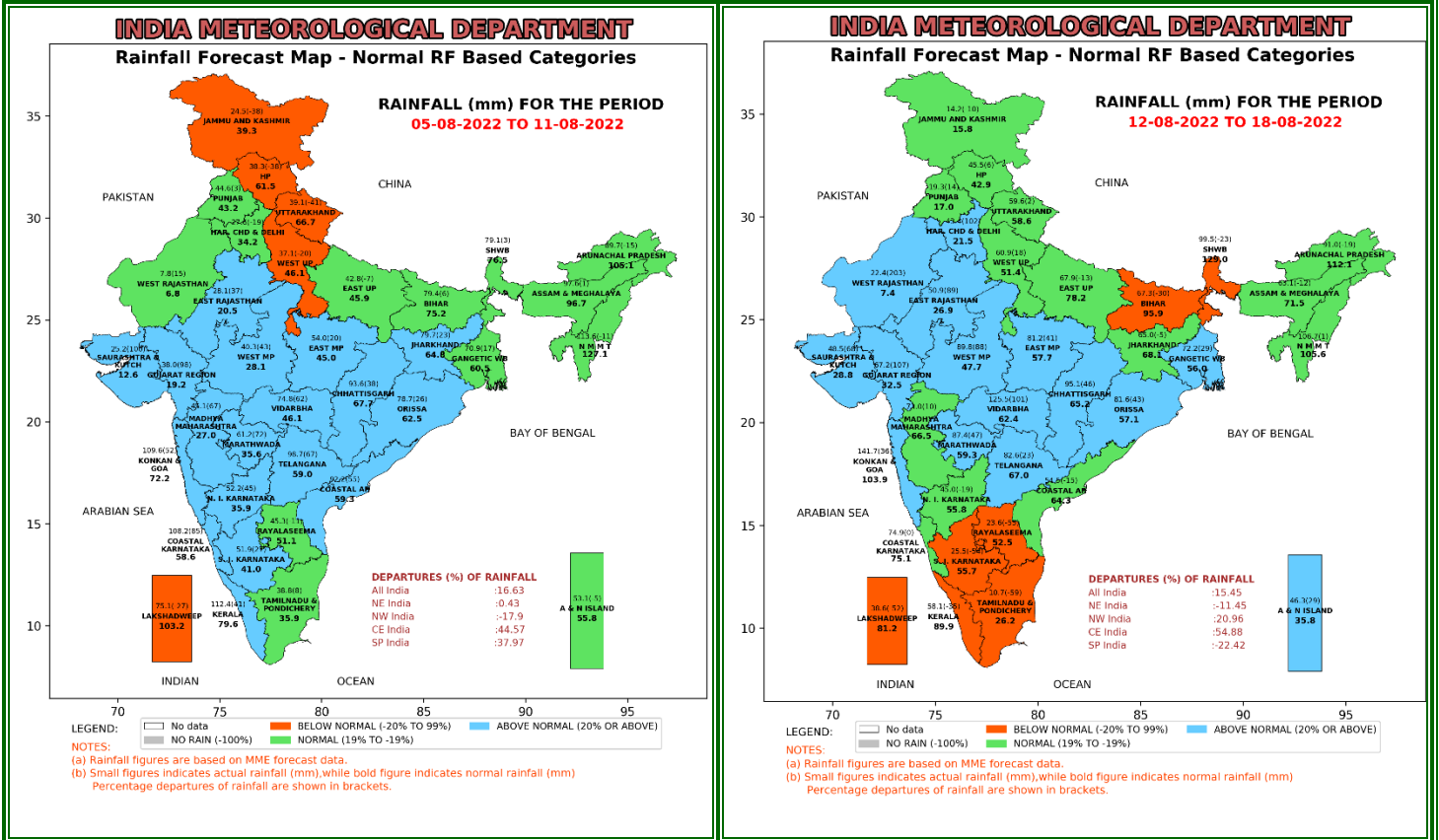


- Normal or above normal rainfall occurred in both the weeks in Jammu & Kashmir and Ladakh (UTs), Uttarakhand, Punjab, Haryana, Chandigarh & Delhi, West Rajasthan, Uttar Pradesh, Bihar, Sub-Himalayan West Bengal & Sikkim, North Interior Karnataka, Rayalaseema, Tamil Nadu Puducherry & Karaikal and Andaman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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 03rd August)

(5th to 18th August 2022)



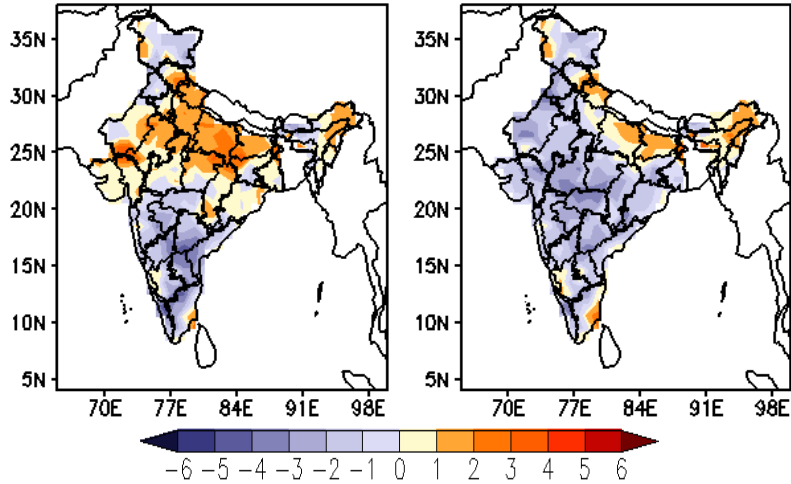
- **Week 1 (05.08.2022 to 11.08.2022):** Rainfall will be above normal over central parts of India
- **Week 2 (12.08.2022 to 18.08.2022):** Rainfall will be above normal over northwest India and central India.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 3rd August)
(05th to 18th August 2022)**

MME forecast Tmax anomaly (Deg C)

(Week1: 05Aug–11Aug)

(Week2: 12Aug–18Aug)



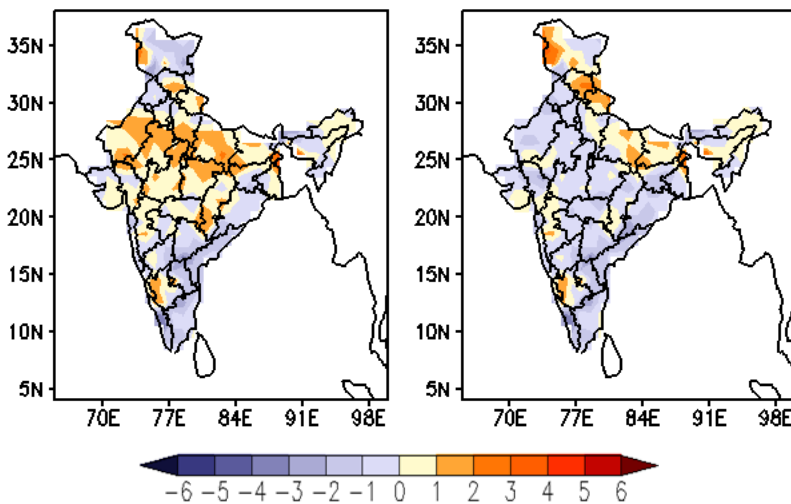
Maximum Temperature (Tmax)

- **Week 1 (05.08.2022 to 11.08.2022):** Tmax will be above normal over some parts of Jharkhand, Uttar Pradesh, Bihar, Odisha, Chhattisgarh, North Madhya Pradesh and Rajasthan. Tmax will be slightly below normal over South Peninsula.
- **Week 2 (12.08.2022 to 18.08.2022):** Tmax will be above normal over some parts of Uttar Pradesh, Bihar and adjoining northeast India. Tmax will be normal to slightly below normal over rest of the country.

MME forecast Tmin anomaly (Deg C)

(Week1: 05Aug–11Aug)

(Week2: 12Aug–18Aug)



Minimum Temperature (Tmin)

- **Week 1 (05.08.2022 to 11.08.2022):** Tmin will be close to normal over south peninsula and slightly above normal over Central and north India.
- **Week 2 (12.08.2022 to 18.08.2022):** Tmin will be normal to slightly above normal over some parts of Uttar Pradesh, Bihar and adjoining northeast India. Tmin will be normal to slightly below normal over rest of the country.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 243 mm (-44% deficit) and 231 mm (-38% deficit) rainfall observed over West Uttar Pradesh during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 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 302 mm (-48% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is above normal for week-1 and 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, Girmar 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 358 mm (-46% deficit) and Sub-Himalayan West Bengal was 1260 mm (+11% surplus) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 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, Girnar-3
- ✓ Sesame: Tilottoma, Rama, Savitri, kanke white, SWB-32-10-1

Bihar

The amount of rainfall received over Bihar is 370 mm (-34% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is normal for week-1 and below normal for 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 1218 mm (-15% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is above normal for week-1 and below normal for week-2.

- Due to the water-logged condition, there may be a chance for the development of gall midge infestation in the paddy field. If the attack was noticed in the field, it is advised to apply Fipronil 0.3 G @ 6kg per acre in the field.
- Since there is a chance of strong wind condition, it is advised to strengthen the vegetable pandals and harvest ripped fruits and vegetables as soon as possible.

Tamil Nadu

The amount of rainfall received over Tamil Nadu is 271 mm (100% large excess) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is normal for week-1 and below normal for week-2.

- Prevailing weather condition is favorable for bud worm infestation in Jasmine. Farmers are advised to spray Thiacloprid (Alanto) 240 SC 1 ml/litre or Spinosad (Tracer) @ 0.5 ml/litre.
- 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

536 mm (21% excess) rainfall over Madhya Maharashtra; 534 mm (54% excess) in Marathwada; 2011 mm (+2% surplus) in Konkan region and 713 mm (26% excess) over Vidarbha was recorded during 1 June – 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Konkan, Madhya Maharashtra, Marathwada and Vidarbha is above normal for week-1 and; normal over Madhya Maharashtra and above normal over Konkan, Vidarbha and Marathwada for week-2, respectively.

Madhya Maharashtra

- 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

- Under prevailing weather condition, there is a possibility for incidence of fruit fly on fruits of cucurbitaceous crops. For effective control of fruit fly, install cue lure 'Rakshak' trap @ 2 nos. per acre.

Vidarbha

- Due to heavy rain and wet spells past week, crops were damaged in some parts of the district. In damaged areas it is advised to prepare the field upon vapsa (optimum soil moisture condition) for re-sowing of contingent (alternate) crops like sesame, pigeon pea, sunflower, pearl millet and castor in affected areas.
- Under prevailing weather condition, cultivation of vegetables like bitter melon, tindora, cluster bean, cowpea, gourds etc. is advised during this period.

Haryana

The amount of rainfall received over Hisar was 296 mm (21% excess) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is normal for week-1 and above normal for week-2.

- Under prevailing weather condition, farmers are advised for sowing of sorghum, maize and lobia as a fodder crop.
- Due to prevailing hot and humid weather condition, farmers are advised to keep vigil for white fly, jassids and other sucking insect pests and withhold irrigation in existing cotton crop.

Jammu

370 mm of rainfall (+15% surplus) was received over Jammu during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Jammu is above normal for week-1 and normal for week-2.

- Prevailing weather condition is congenial for, root weevil and thread worm in paddy crop. To control, it is advised to apply Carbofuran 3G @ 1 kg/kanal of in fresh water.
- To control stem borer in maize, it is advised to apply Cartap hydrochloride/Carbofuran granules @ 5 g/plant during clear weather.

Assam

The amount of rainfall received over Assam during 1 June - 07 August 2022 was 1220 mm (+9% surplus). The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11

August 2022 and 12 - 18 August 2022) over Assam is normal for week-1 and week-2.

- Under prevailing weather condition, farmers are advised to continue to plant the suckers, slips and crowns of pineapple in the main field.
- Farmers are advised to continue the land preparation for cultivation of sesame. Select recommended varieties like *ST 1683*, *Punjab Til No. 1*, *AST-1* etc. to obtain higher yield.

Karnataka

Rainfall received during 1 June - 07 August 2022 over South Interior Karnataka was 638 mm (+60% large excess) and 373 mm (+49% excess) over North Interior Karnataka and 2390 mm (+9% surplus) over Coastal Karnataka. The extended range weather forecast (rainfall) for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) is above normal over South Interior Karnataka, North Interior Karnataka and Coastal Karnataka for week-1 and; below normal over South Interior Karnataka and normal over North Interior Karnataka and Coastal Karnataka during week-2.

South Interior Karnataka

- In long-duration field crops like pigeon pea, earthing up is advised for better availability of soil moisture to the crop rows.

Uttarakhand

The amount of rainfall received over Uttarakhand was 630 mm (-9% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Uttarakhand is below normal for week-1 and normal for week-2.

- Under prevailing weather condition, it is advised to facilitate good drainage system to remove excess rainwater from crop fields to avoid water stagnation and postpone the spraying of pesticides.

Punjab

The amount of rainfall received over Punjab was 278 mm (15% excess) during 1 June - 04 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Punjab is normal for week-1 and week-2.

- Prevailing weather condition is highly suitable period for planting of citrus, guava, mango, litchi, sapota, jamun, bael, amla etc.
- For the control of fruit rot and die back in chilli, it is advised to spray Folicur @ 250 ml or Indofil M 45 @ 750 g per acre at 10 days interval.

Himachal Pradesh

The amount of rainfall received over Himachal Pradesh was 400 mm (-6% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Himachal Pradesh is below normal for week-1 and; normal for week-2.

- In mid hills of the state, it is the optimum time for raising the nursery of mid-season cauliflower varieties. Recommended varieties are *Palam Uphar*, *Pusa Deepali*, *F1 Megha*, *F1 Barkha* and *F1 White Excel*.
- Farmers in the high hills temperate wet areas can go in for the sowing of pea crop. The recommended varieties are *Palam Samool*, *Pb-89*, *Lincoln*, *Azad P-1* and *Palam Priya*.

Gujarat

The amount of rainfall received over Gujarat was 697 mm (+25% excess) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Gujarat is above normal for week-1 and week-2.

- To control leaf miner in tomato crop, it is advised to spray Spinosad 3 ml per 10 liters of water during clear weather conditions.

Andhra Pradesh

The amount of rainfall received over Coastal Andhra Pradesh was 365 mm (+20% excess) and over Rayalaseema was 282 mm (+51% excess) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Coastal Andhra Pradesh is above normal and Rayalaseema is normal for week-1 and; normal over Coastal Andhra Pradesh and below normal over Rayalaseema for week-2.

- In Srikakulam, Vizianagaram, Guntur and Krishna districts, current weather conditions are favorable 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.

Madhya Pradesh

The amount of rainfall received over East Madhya Pradesh was 518 mm (-11% deficit) and over West Madhya Pradesh was 586 mm (+19% surplus) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over East Madhya Pradesh is above normal for week-1 and week-2.

- Farmers are advised to tie the sugar cane plants together to prevent from lodging due to strong winds.
- Under prevailing weather condition, farmers are advised for nursery bed preparation for sowing of *kharif* onion, chilli and brinjal seeds in the nursery.

Chhattisgarh

The amount of rainfall received over Chhattisgarh was 640 mm (-2% deficit) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over Chhattisgarh is above 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 rainfall, farmers are advised to make proper water drainage channels in the field.

Rajasthan

The amount of rainfall received over East Rajasthan was 439 mm (+22% excess) during 1 June - 07 August 2022. The extended range weather forecast (rainfall) provided for the next two weeks (05 - 11 August 2022 and 12 - 18 August 2022) over East Rajasthan is above normal for week-1 and week-2.

- Under prevailing weather condition, farmers are advised for transplanting of chilli, brinjal and early cauliflower in raised bed.
- Keeping in the view of rainfall forecast in next weeks, farmers are advised for proper management of drainage in standing crops and vegetable nurseries.

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