



National Agromet Advisory Services Bulletin

Date of issue: 16 September 2022

based on

Extended Range Weather Forecast (ERFS)

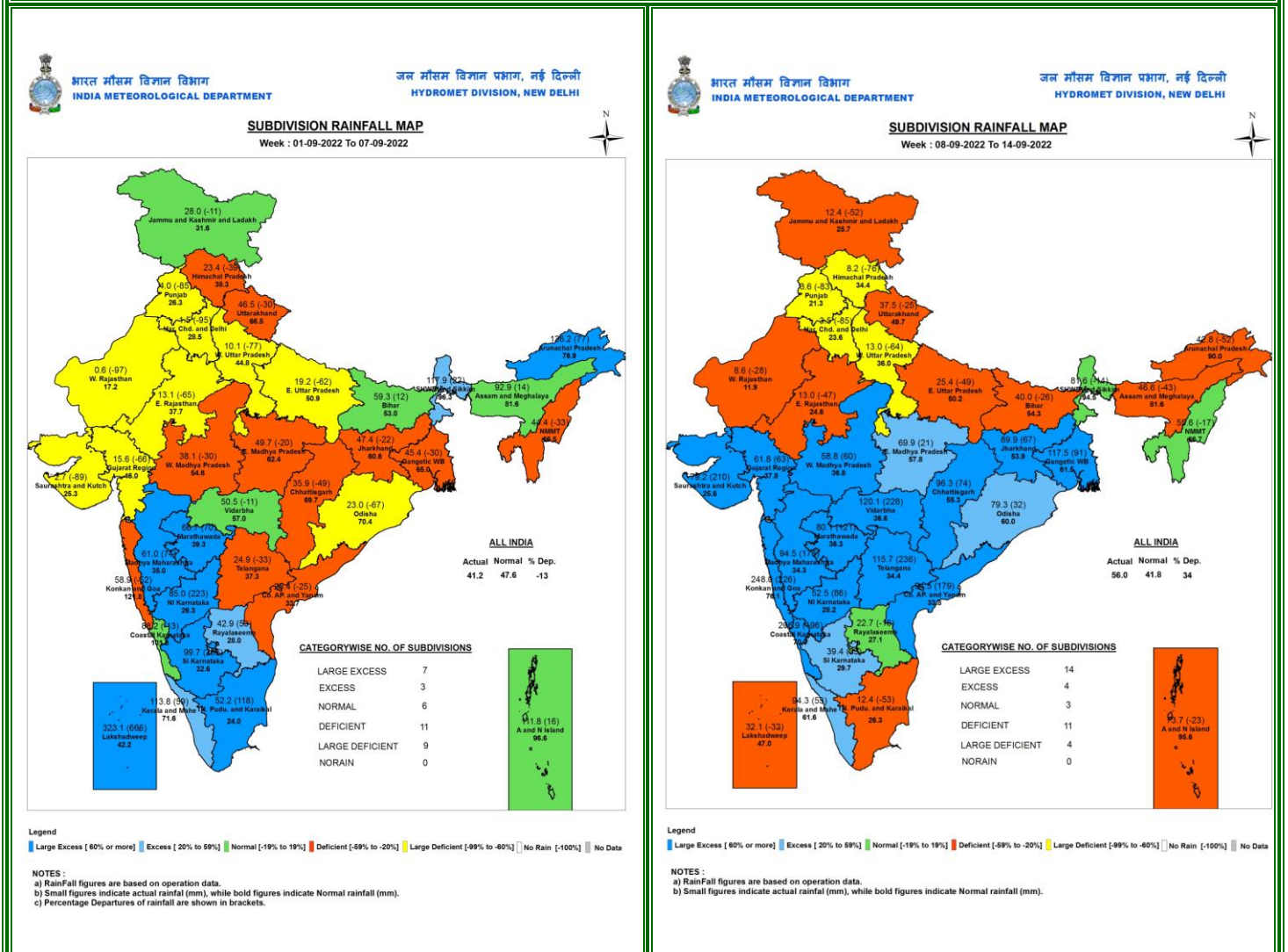
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**AICRP on Agro-Meteorology (AICRPAM)
Central Research Institute for Dryland Agriculture (CRIDA)
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&
India Meteorological Department (IMD)
Earth System Science Organization**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperature)

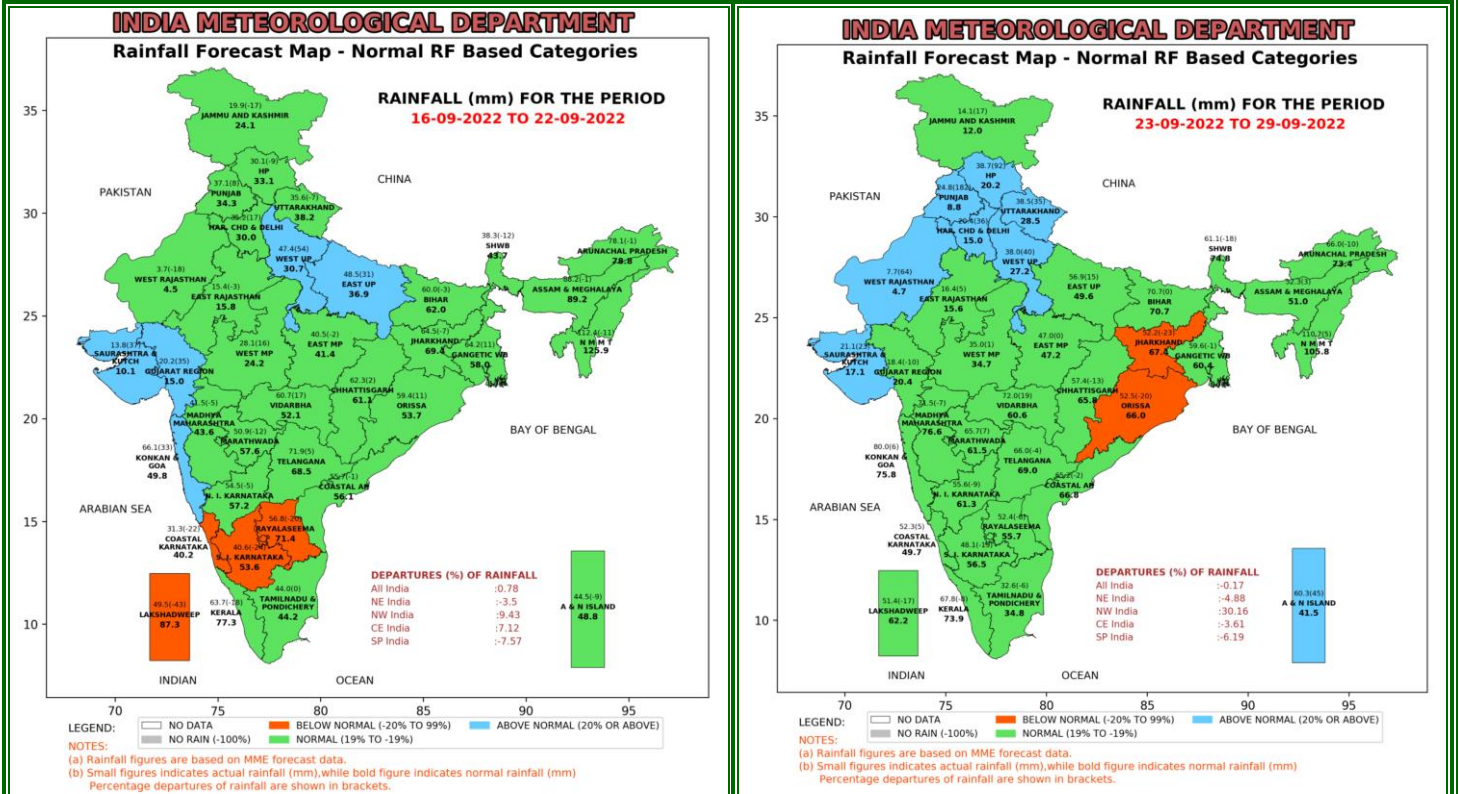
Realized Rainfall (1st to 14th September, 2022)



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

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC- 14th September) (16th to 29th September 2022)



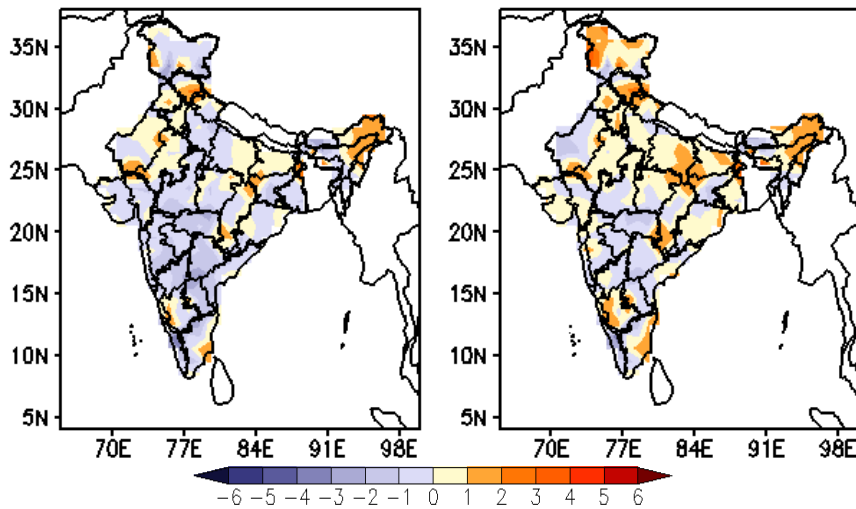
- **Week 1 (16.09.2022 to 22.09.2022) and Week 2 (23.09.2022 to 29.09.2022):** Rainfall is likely to be normal to slightly above normal over northwest, north and central India.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC- 14th September)
(16th to 29th September 2022)**

MME forecast Tmax anomaly (Deg C)

(Week1: 16Sep-22Sep)

(Week2: 23Sep-29Sep)



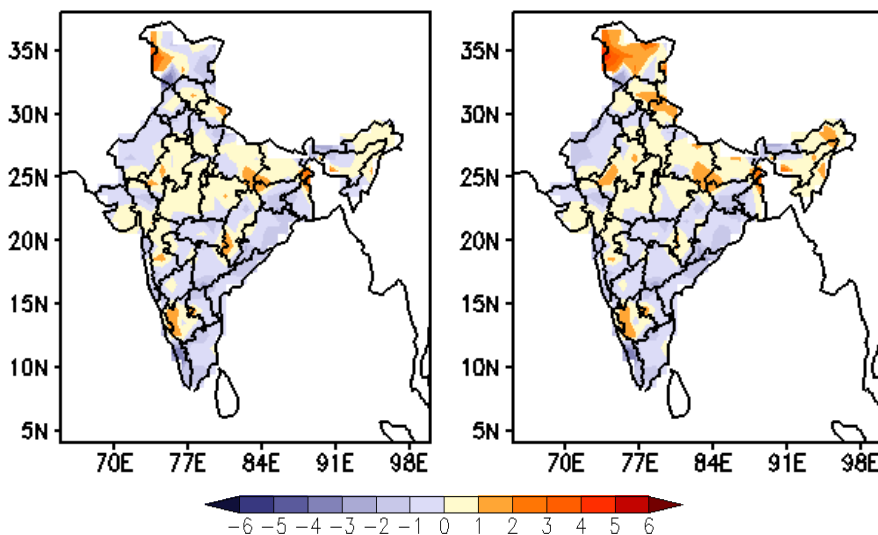
Maximum Temperature (Tmax)

- **Week 1 (16.09.2022 to 22.09.2022):** Tmax will be above normal over some parts of north and northwest India and slightly below normal over remaining parts of the country.
- **Week 2 (23.09.2022 to 29.09.2022):** Tmax will be slightly above normal over most parts of the country.

MME forecast Tmin anomaly (Deg C)

(Week1: 16Sep-22Sep)

(Week2: 23Sep-29Sep)



Minimum Temperature (Tmin)

- **Week 1 (16.09.2022 to 22.09.2022):** Tmin will be above normal over central and northern parts of India.
- **Week 2 (23.09.2022 to 29.09.2022):** Tmin will be slightly above normal over Indo-Gangetic region and central India.

Agromet Advisories

Uttar Pradesh

The amount of rainfall received over East Uttar Pradesh was 470 mm (-37% deficit) and over West Uttar Pradesh was 366 mm (-43% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is above normal over East Uttar Pradesh and West Uttar Pradesh for week-1; above normal over West Uttar Pradesh and normal over East Uttar Pradesh for week-2.

Western Uttar Pradesh

- 79.8 mm rainfall occurred during last week against 53.8 mm normal rainfall. Therefore, no need of irrigation in paddy crop during this week.
- Due to rainfall that occurred during last week, farmers are advised to drain out excess rain water from all vegetables, pulse, maize fields and nurseries of the vegetable's crops.
- For the management of *khaira* disease in paddy crop, it is advised to spray 5.0 kg Zinc sulphate/ha with 2.0 % urea solution.

Eastern Uttar Pradesh

- Due to prevailing rainy condition and possibility of rainfall in the next week, farmers are advised for no irrigation in any crops.
- In view of the high humidity and the possibility of rain in next two weeks, the farmers are advised to keep the sitting places of the animals clean, sprinkle lime outside the animal shelter to prevent infection from outside.

Jharkhand

The amount of rainfall received over Jharkhand is 734 mm (-21% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal for week-1 and below normal for week-2.

- Continuous rain accompanied with high wind observed for last two days which caused water logged condition in almost all the crop fields. Farmers are advised to drain out excess rain water by cutting the bund of the field along with earthing up near root zone which may help the plant to survive.
- Under assured irrigation facility farmers are advised to cultivate potato with recommended variety like *Kufri Ashoka*, *Kufri Pukhraj*, *Kufri Chandramukhi* etc.

Bihar

The amount of rainfall received over Bihar is 607 mm (-33% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal for week-1 and week-2.

- Because of good rainfall at several places in last week, satisfactory growth is observed in all *kharif* crops.

- Nursery sowing of early varieties of cabbage is advised. *Pride of India*, *Golden Acre*, *Pusa mukta*, *Pusa agate* and *early drum head* varieties of cabbage are recommended for sowing under North Bihar agro-climatic condition.

West Bengal

The amount of rainfall received over Gangetic West Bengal was 824 mm (-21% deficit) and Sub Himalayan West Bengal was 1717 mm (normal rainfall) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal over Gangetic West Bengal and Sub-Himalayan West Bengal during week-1 and week-2.

- Due to forecast for rainfall in coming next two weeks, it is advised to harvest matured rice cultivars as early as possible.
- To control chili leaf curl, it is advised to spray Imidacloprid @ 0.2ml/litre of water at the evening hour.

Kerala

The amount of rainfall received over Kerala is 1724 mm (-9% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal for week-1 and week-2.

- Because of high moisture content in the atmosphere, there is a chance for the development of mahali disease in arecanut and coconut. For management, spraying of Copper Oxochloride @ 3g per litres of water is advised.
- September to December is the suitable time to cultivate cucurbitaceous vegetables like bitter gourd, snake gourd, cucumber, pumpkin, ash gourd etc. Farmers are advised to go for land preparation and collect the quality of seeds of cucurbitaceous vegetables.

Tamil Nadu

The amount of rainfall received over Tamil Nadu is 458 mm (+70% large excess) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal for week-1 and week-2.

- Irrigation may be skipped since there is a normal/moderate rainfall forecast for the coming next two weeks.
- 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

887 mm (33% excess) rainfall over Madhya Maharashtra; 731 mm (28% excess) in Marathwada; 2993 mm (+10% surplus) in Konkan region and 1160 mm (31% excess) over Vidarbha was recorded during 1 June - 16 September 2022. The extended range weather forecast (rainfall) for the

next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal over Madhya Maharashtra, Vidarbha and Marathwada and above normal over Konkan for week-1 and; normal over Konkan, Vidarbha, Madhya Maharashtra and Marathwada for week-2, respectively.

Madhya Maharashtra

- Due to cloudy weather condition, there may be a chance of leaf eating caterpillar in *kharif* crops like soybean, sunflower, pigeon pea, bajra etc. To manage, it is advised to use pheromone traps @ 5/ha and also if required spray Profenofos/Quinalphos/Chlorpyrifos @ 20 ml per 10 litre of water.
- Due to above normal rainfall received in past week, it is advised to drain excess water from the crop fields.

Vidarbha

- Sowing of *kharif* crops should be undertaken only when about 75-100 mm monsoon rainfall has occurred across two to three days. Avoid sowing under insufficient soil moisture condition.
- As forecast warning includes thunderstorm with lightning and gusty wind very likely to occur at isolated places, keep farm animals indoor during thunderstorm/lightning.

Marathwada

- Because of rainfall, humidity and cloudy weather condition during last week there may be chance of leaf spot disease in turmeric crop. For management it is advised to spray Azoxystrobin 18.2% + Difenconazole 11.4% @ 10 ml + 5 ml Sticker per 10 litres of water during clear weather.

Konkan

- Due to forecast for heavy rainfall in coming first week, it is advised to maintain optimum water level of 5 to 10 cm in rice field which is in panicle initiation to flowering stage and make arrangement to drain out excess water from field.

Odisha

The amount of rainfall received over Odisha was 1092 mm (+3% excess) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Odisha is normal for week-1 and below normal for week-2.

- September is the optimum time for nursery raising of tomato. It is advised to grow varieties like *BT-2*, *BT-10*, *BT-12*, *Niladri*, *Sadabahar*, *Madhuri*, *Maharathi*, *Rasmi*, *Naveen* etc.
- Due to continuous rain, the banana farmers are advised to drain out the excess water from the field and earthing up the newly planted banana. After the cessation of rain, apply the recommended dose of fertilizer.

Gujarat

The amount of rainfall received over Gujarat was 1076 mm (23% excess) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16

- 22 September 2022 and 23 - 29 September 2022) over Gujarat is above normal for week-1 and normal for week-2.

- To control blast disease of pearl millet, carry out two spray of Carbendazim 50 WP 10 g in 10 liters of water at an interval of 15-20 days.
- Vaccination is advised against Lumpy Skin Disease (LSD) in cows. For the control of ectoparasite, spray Deltamethrin or Amitraz 2 ml in 1 litre of water.

Jammu

546 mm of rainfall (6% excess) was received over Jammu during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Jammu is normal for week-1 and week-2.

- Prevailing weather is congenial for hairy caterpillar in *kharif* pulses. Farmers are advised to kill young larvae in gregarious phase. If population is high, spray Quinalphos @ 0.03% or Dichlorvos @ 0.05% during clear weather.
- Under prevailing weather condition, it is advised to sow direct sown vegetables like methi, spinach beet, coriander, radish, carrot, beet root and spinach within first fortnight of September for good germination and crop stand.

Assam

The amount of rainfall received over Assam during 1 June - 16 September 2022 was 1524 mm (-6% deficit). The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Assam is normal for week-1 and week-2.

- Under prevailing weather condition, farmers may continue nursery sowing of mid-season varieties of cauliflower like *Pusa Synthetic*, *Pusa Snowball* and *Main Crop Patna* under shade-nets or poly houses.
- Due to favorable weather, farmers may observe the infestation of Phytophthora leaf and root rot in betelvine plants. To manage, it is advised to immediately apply four drenches and eight sprays of Bordeaux mixture @ 1.0% and 0.5% respectively.

Karnataka

Rainfall received during 1 June - 16 September 2022 over South Interior Karnataka was 1001 mm (+66% large excess) and 616 mm (+52% excess) over North Interior Karnataka and 3190 mm (+7% surplus) over Coastal Karnataka. The extended range weather forecast (rainfall) for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) is normal over North Interior Karnataka, below normal over South Interior Karnataka and Coastal Karnataka for week-1 and; normal over Coastal Karnataka, North Interior Karnataka and South Interior Karnataka during week-2.

South Interior Karnataka

- Farmers are advised for transplanting ragi seedlings wherever there is patchy stand to

maintain the uniform plant populations to get higher yield.

- To control of leaf folder insect in red gram crop, it is advised to spray Methomyl 40 SP @ 2 g/litre of water before flowering of crop.
- Under prevailing weather following crops with recommended varieties are advised:
- Finger millet: (var. *Indaf-5,7,9, ML-365, KMR-301*), horse gram: (var. *PHG-9, KBH-1, Niger*), field bean (var. *HA-3 and 4*) and sunflower: (*KBSH-1,41,42, 44 and 53*), cowpea (*KBC-1, TVX-944 and PKB-4* for vegetable purpose), Maize: (var. *Ganga-11, Deccan -103*), Vijaya composite, Composite *NAC- 6004, 6002*, Hybrid-*Nityashree (NAH-2049)*, Hybrid *Hema (NAH-1137)*.

North Interior Karnataka

- Cloudy condition with moderate rainfall is expected during the next two weeks. Taking advantage of the situation, sowing of following *kharif* crops may be completed immediately.
- In medium black to deep black soils, sowing of Bajra, Pigeonpea, Groundnut, Chilli, Castor, Setaria (Navane), Sesamum, Groundnut + Pigeonpea (4:2), Bajra + Groundnut (2:4), Bajra + Pigeonpea (2:1), may be taken up.
- In shallow and red soils sowing of Bajra, Pigeonpea, Groundnut, Castor, Sesamum, Niger, Setaria (Navane), Horsegram, Bajra + Groundnut (2:4), Bajra + Pigeonpea (2:1), Bajra + Castor (2:1), Groundnut + Pigeonpea (4:2) may be taken up. Use short duration varieties of pigeon pea for sowing. Use wilt resistant variety TS-3R.
- To induce drought resistance in crops, it is advised to follow special cultivation practices as suggested below before sowing.
- Bajra: Soak the seeds in water for 10 hrs and dry under shade and then go for recommended seed treatment. Take up sowing in wider row spacing up to 135 cm.
- Pigeon pea: Soak seeds in CaCl₂ solution (2%) for 1 hour and dry under shade for 7 hours and then go for recommended seed treatment.
- Niger: Soak the seeds in water for 6 hours and dry under shade and then go for recommended seed treatment.

Punjab

The amount of rainfall received over Punjab was 329 mm (-21% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Punjab is normal for week-1 and above normal for week-2.

- For control of fruit rot and die back in chilli, it is advised to spray the crop with 250 ml of Folicur or 750 g of Indofil M-45.
- To manage fall armyworm in maize crop, it is advised to spray the crop with Coragen 18.5 SC @ 0.4 ml per litre of water.

Himachal Pradesh

The amount of rainfall received over Himachal Pradesh was 622 mm (-10% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Himachal Pradesh is normal for week-1 and; above normal for week-2.

- Because of reduced rainfall in the major paddy growing areas of the state, adequate bunding is advised to ensure standing water in the paddy fields. Bunds should be higher and wider so that more rain water can be collected and retained in the fields.
- Ensure proper ventilation in poultry houses. Replace the poultry houses with fresh litter and keep the houses clean and ensure drinking water to the birds.
- Under prevailing weather conditions, sowing of root vegetables like radish (*Japanese White, Chinese Pink, Miro Early*), Turnip (*PTWG*), Carrot (*Nantes, Chanteny, Pusa Yamdagni*) and leafy vegetable like Spinach (*Pusa Harit, Pusa Bharti*) and Fenugreek (*IC-74, Palam Soumava, Pusa Kasuri*) is advised.

Andhra Pradesh

The amount of rainfall received over Coastal Andhra Pradesh was 583 mm (13% excess) and over Rayalaseema was 440 mm (+30% excess) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Coastal Andhra Pradesh is normal and Rayalaseema is below normal for week-1 and normal over Coastal Andhra Pradesh and Rayalaseema for week-2.

- In Srikakulam, Vizianagaram, Guntur and Krishna districts, present weather conditions are favorable for the incidence of sucking pests in cotton. To control, spraying of Imidacloprid @ 0.3 ml or Acetamiprid @0.2g/litre of water is recommended.
- In Ananthapuramu, Kurnool and Nandyal districts, prevailing weather conditions are favourable for incidence of semi looper and spodoptera in castor. Farmers are advised to spray Flubendiamide @0.2ml/litre or Profenofos @1ml/litre of water.

Chhattisgarh

The amount of rainfall received over Chhattisgarh was 1170 mm (+10% surplus) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Chhattisgarh is normal for week-1 and week-2.

- Looking into the forecast of light to moderate rainfall in coming days farmers are advised to drain excess water.
- For avoiding the fruit shedding in papaya crop, it is advised to spray Naphthalene Acetic Acid (NAA) @ 20 ppm.

Madhya Pradesh

The amount of rainfall received over East Madhya Pradesh was 1070 mm (+8% surplus) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Madhya Pradesh is normal for

week-1 and week-2.

- Under humid and heavy rainfall conditions, citrus canker may occur in the citrus tree. For management, the affected leaves and twigs are destroyed by breaking, after that, spray of solution @ 180 g of Copper oxychloride and @ 6 g of Streptocycline in 60 litres of water is advised.

Uttarakhand

The amount of rainfall received over Uttarakhand was 987 mm (-11% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Uttarakhand is normal for week-1 and above normal for week-2.

- Light to moderate rainfall likely to occur in coming first week and heavy rainfall/thunderstorm/lightning likely to occur at isolated places in second week. Farmers are advised to avoid spraying of pesticides and application of fertilizers during rainfall.
- Under prevailing weather conditions, it is advised to maintain proper drainage in the crop fields to drain out excess water to avoid water stagnation.

Rajasthan

The amount of rainfall received over East Rajasthan was 727 mm (20% excess) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over East Rajasthan is normal for week-1 and week-2.

- Keeping in the view of light rainfall forecast in next two weeks, farmers are advised to do proper arrangement for storing rain water at one portion in the field and can be used for irrigation in the crops at suitable time during dry spell.

Haryana

The amount of rainfall received over Haryana or Hisar was 336 mm (-18% deficit) during 1 June - 16 September 2022. The extended range weather forecast (rainfall) provided for the next two weeks (16 - 22 September 2022 and 23 - 29 September 2022) over Haryana or Hisar is normal for week-1 and above normal for week-2.

- As dry weather conditions are prevailing, farmers are advised to maintain the water level in the paddy field and adopt recommended plant protection measures when weather remain dry and clear.

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