



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

Validity: 10 -23 November 2017

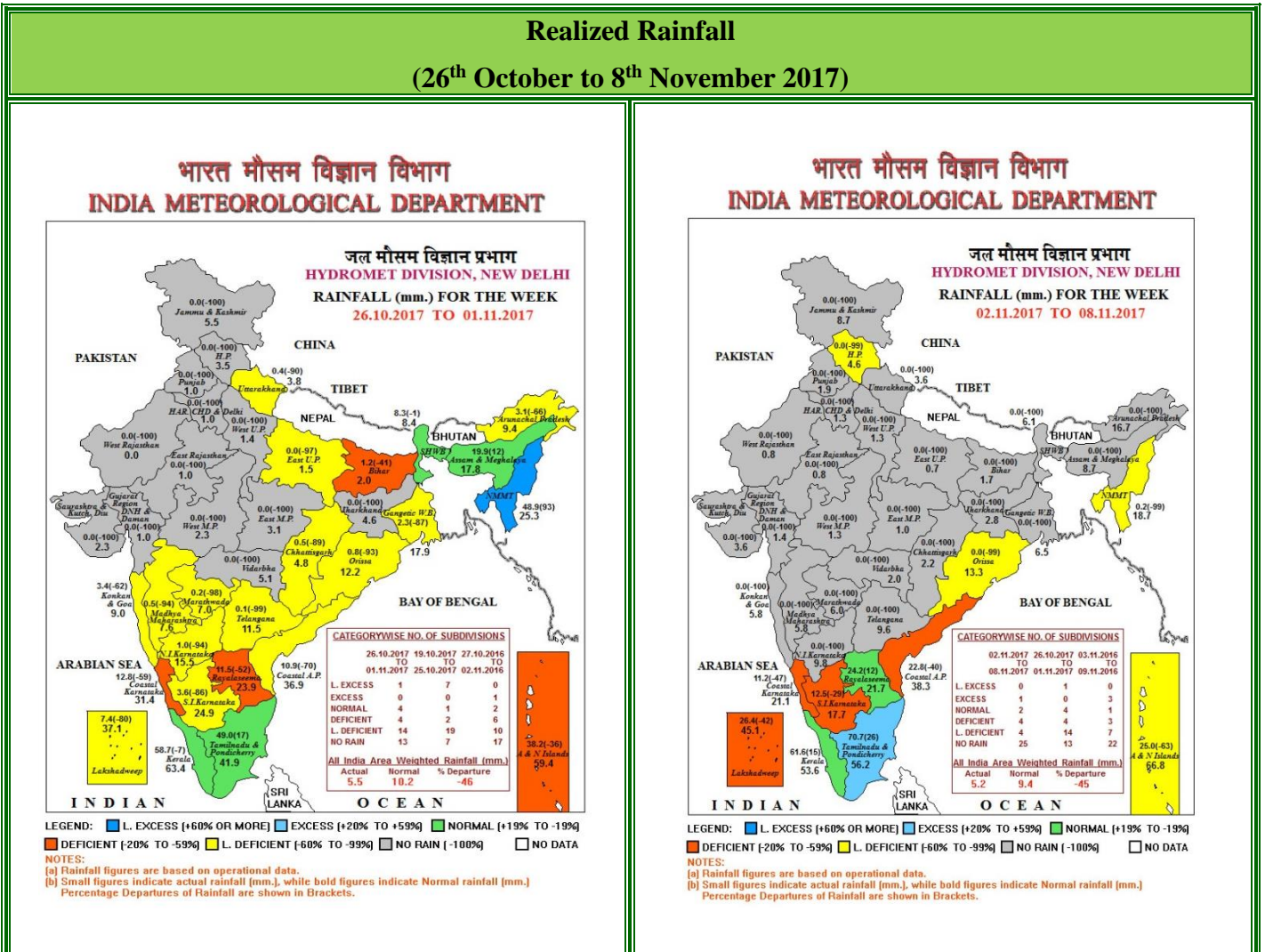
Date of Issue: 10 November 2017

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Indian Council of Agricultural Research (ICAR)
All India Coordinated Research Project on Agricultural Meteorology (AICRPAM),
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&
Earth System Science Organization
India Meteorological Department**

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall

(26th October to 8th November 2017)



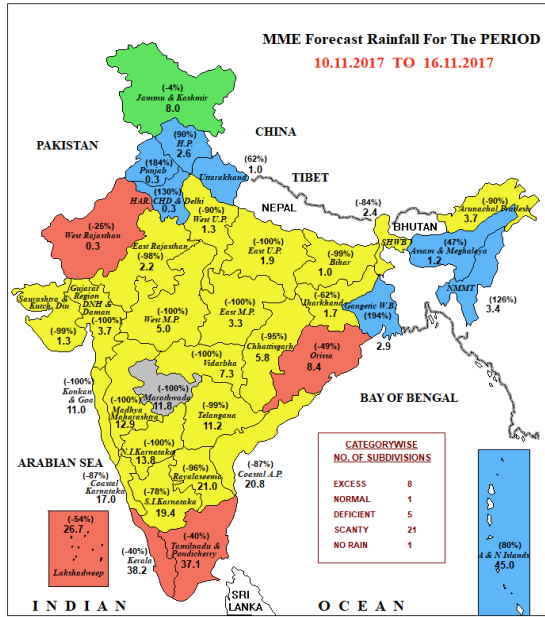
- Normal or above normal rainfall occurred during last two weeks in Kerala and Tamil Nadu.
- Normal or above normal rainfall occurred in either of the last two weeks in Assam & Meghalaya, Nagaland, Manipur, Mizoram and Tripura, Sub-Himalayan West Bengal & Sikkim and Rayalaseema.
- Below normal rainfall/no rain occurred in the last two weeks in Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Rajasthan, Gujarat State, Maharashtra, Madhya Pradesh, Chhattisgarh, Arunachal Pradesh, Uttar Pradesh, Bihar, Jharkhand, Gangetic West Bengal, Odisha, Karnataka, Telangana, Coastal Andhra Pradesh, Andaman & Nicobar Islands and Lakshadweep.

Extended Range Forecast System

Subdivision wise rainfall forecast maps for the next 2 weeks (IC – 08 November)

(10th to 23rd November 2017)

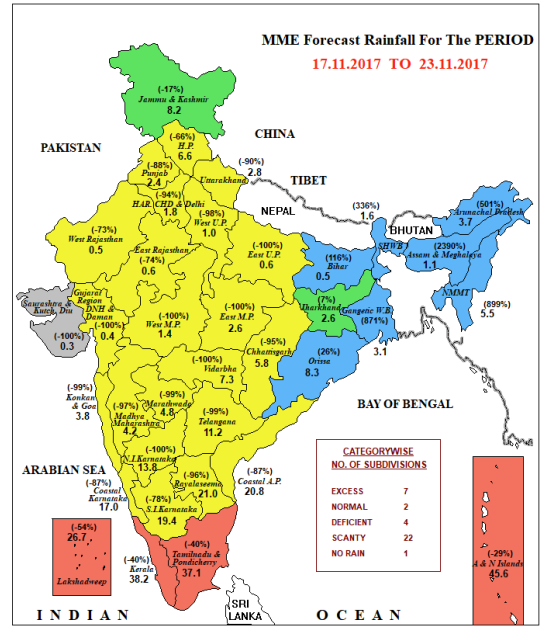
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ EXCESS [+20% OR MORE] ■ NORMAL [+19% TO -19%] ■ DEFICIENT [-20% TO -59%]
■ SCANTY [-60% TO -99%] ■ NO RAIN [-100%] NO DATA

NOTES:
 (a) Rainfall figures are based on MME Forecast.
 (b) Bold figures indicate Forecast Normal rainfall (mm.)
 (c) Percentage Departures of Rainfall are shown in Brackets.

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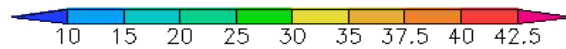
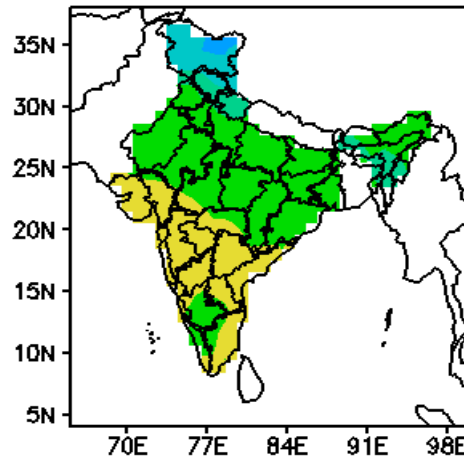
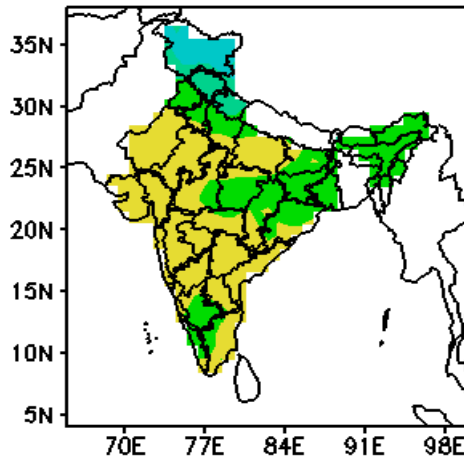
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 (c) Percentage Departures of Rainfall are shown in Brackets.

**Maximum and Minimum temperatures and anomaly ($^{\circ}\text{C}$) for next 2 weeks (IC – 08 November)
(10th to 23rd November 2017)**

MME Bias Corrected Actual Tmax (Deg C)

(Week1: 10Nov–16Nov)

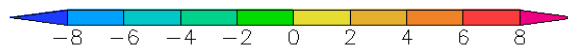
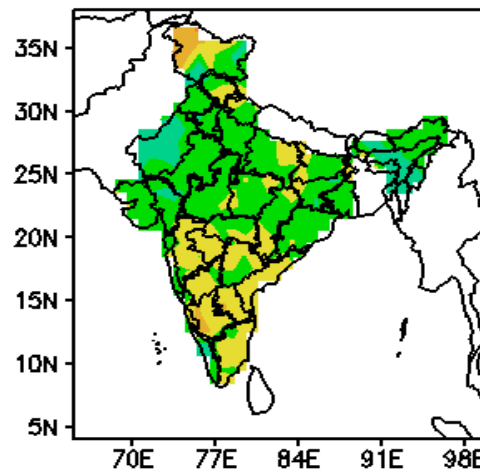
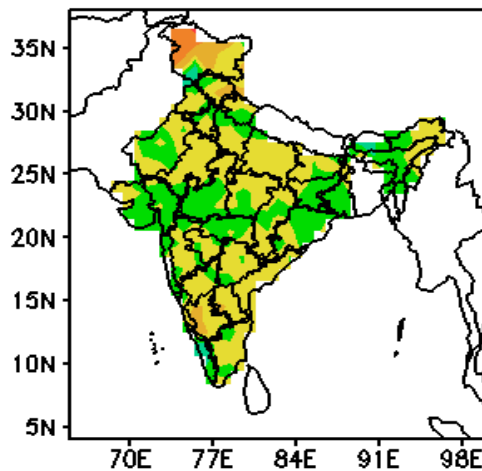
(Week2: 17Nov–23Nov)



MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 10Nov–16Nov)

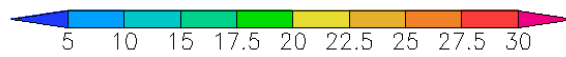
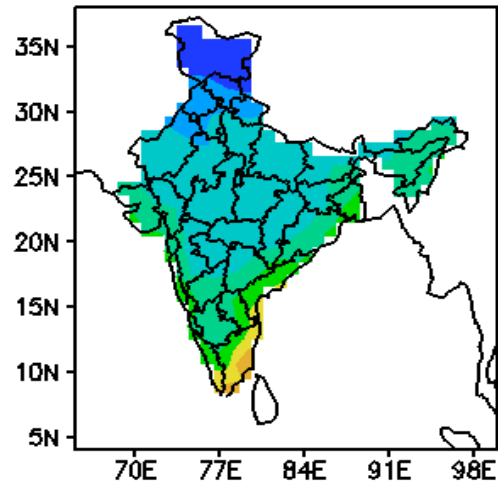
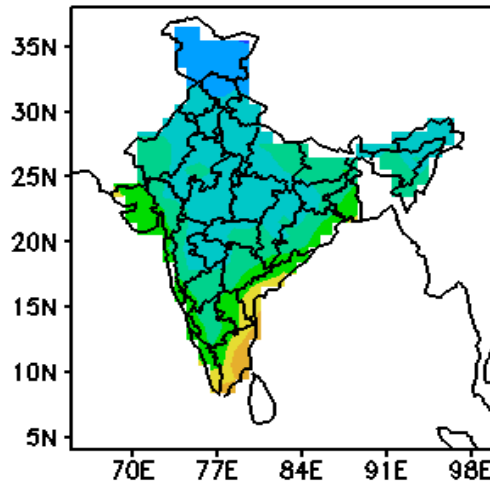
(Week2: 17Nov–23Nov)



MME Bias Corrected Actual Tmin (Deg C)

(Week1: 10Nov–16Nov)

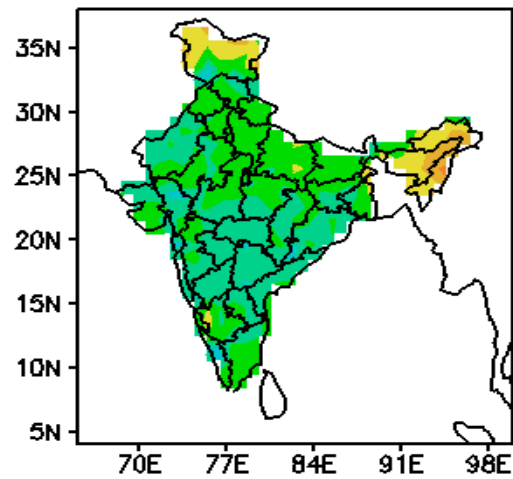
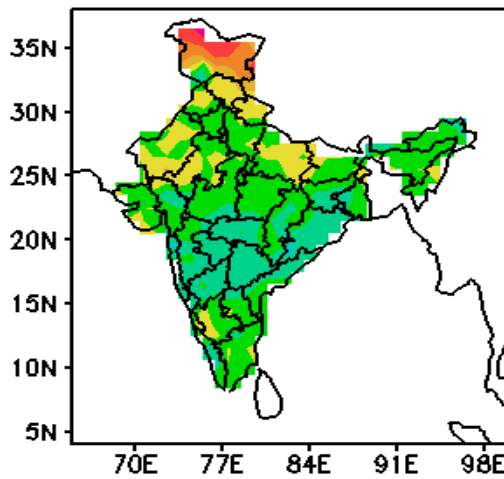
(Week2: 17Nov–23Nov)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 10Nov–16Nov)

(Week2: 17Nov–23Nov)



Strategic Agricultural Planning based on rainfall during next two weeks till

23rd November 2017

Agromet Advisories

Kerala

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over Kerala is 300.2 mm, which is 16% deficient compared to the normal. The extended range weather forecast provided for next two weeks (10 to 16 November and 17 to 23 November) for Kerala is deficient for both the weeks.

- Apply imidacloprid (neonicotinoid) @1 ml/10 litre at spindle leaf area to control red palm weevil in coconut palms.
- To control pollu disease and quick wilt in pepper, apply Ecalux @ 2ml/litre wherever attack of pollu beetle is severe. As a prophylactic measure, drench the soil with 0.2 % Copper oxy chloride and spray the aerial part with 1% Bordeaux mixture.
- As deficient rainfall is forecasted, harvesting of green ginger can be carried out.
- As a precautionary measure, apply lime in the banana basin or bleaching powder in the irrigation channels to control Erwinia disease.
- If powdery mildew disease is severe in vegetables, spray Trichoderma @ 20g/litre on both sides of leaves. Apply tebuconazole @1.5 ml/litre or bavistin @1 g/litre of water in cucurbitaceous vegetables.

Karnataka

Rainfall received during 01 October to 08 November 2017 over different meteorological subdivisions of Karnataka are follows: South Interior Karnataka: 191.5 mm (14% surplus); North Interior Karnataka: 149.3 mm (21% surplus) and Coastal Karnataka: 199.4 mm (6% deficit). The extended range weather forecast provided for next two weeks for all the sub divisions of the state is scanty.

South Interior Karnataka

- Land preparation and sowing of rabi crops can be done, wherever sufficient residual soil moisture is available.
- As cloudy weather condition is prevailing, postpone the pruning in grapes.
- In ragi, incidence of blast disease was noticed. Thus spray Mancozeb @ 2gram/litre (100 gram/acre) or Zainab @2.5 gram/litre (500 gram/acre) to control it.
- To control redgram pod borer, spray indoxycarb 14.5 SC @ 0.5 ml/litre or spynosad 45 SC @ 0.15 ml/litre or chloropyrifos 20 EC @ 2ml/litre.
- Recommended varieties for short duration crops are: ragi (Indaf-9, GPU- 45 & 66, PR-202), cowpea (KBC-1, TVX-944 and PKB-4 for vegetable purpose) Sunflower: Morden, KBSH-1,41,44 & 52 and Niger: KBN-1, No-71 on black soils Bengal gram (Annigeri-1, J.J-11, KAK-2, Vishal).

North Interior Karnataka

- As dry weather may persist for next two weeks, farmers are advised to harvest and post-harvest operations in maize, groundnut, and other crops.
- Optimum sowing window for chickpea is considered upto 15th Nov, thus farmers are advised to complete its sowing as early as possible.
- In medium black soils, sowing of sunflower, chickpea, Diccocum wheat and wheat under irrigated condition may be taken up.

Andhra Pradesh

Rainfall received during the period of 01 October to 01 November 2017 over various meteorological sub divisions of the state are: Rayalaseema: 249.6 mm (61% excess); Coastal AP: 150.1 mm (37% deficient). The extended range weather forecast provided for next two weeks for all the subdivision of the state is scanty.

- In black soil areas of Ananthapuramu, Kadapa, Kurnool, Prakasam districts farmers advised to complete sowing of Bengal gram by 15th of November.
- Farmers of Godavari, Krishna zones and Nellore, Chittoor, Kurnool districts can take up sowing of upland blackgram and greengram crop. Farmers are advised to select YMV resistant blackgram varieties like GBG 1, PU 31, TBG 104 and greengram varieties like LGG 460, WGG 42, IPM 2-14, follow seed treatment with Imidacloprid or thiomethoxam @5ml/kg and mancozeb@3g/kg of seed.
- Farmers of North coastal AP, Southern zone and scarce rainfall zone can take up sowing of rabi groundnut under irrigated conditions upto 15th December. Farmers are advised to take up seed treatment with Imidacloprid or Thiomethaxom @ 5ml/kg and mancozeb @ 3g/kg of seed.
- In scarce rainfall zone, southern zone and Krishna zone, incidence of spotted pod borer in redgram may occur. If any incidence is observed, they are advised to take up spraying of Chlorpyrifos@2.5ml/l and Dichlorovos@1ml/l of water.
- Leaf folder incidence was observed in paddy crop in southern and north coastal zone. For control of leaf folder farmers are advised to spray chloripyriphos 2.5 ml or cartaphydrochloride @ 2 g/l of water or Flubendiamide@0.2ml/l of water.

Maharashtra

Rainfall situation

Rainfall received during the period of 01 October to 01 November 2017 over various meteorological sub divisions of the state: Vidarbha: 57.5 mm (7% deficient); Marathwada: 100.4 mm (27% surplus); Madhya Maharashtra: 112.8 mm (32% surplus) and Konkan: 157.0 mm (23% surplus). The extended range weather forecast provided for first weeks for all the subdivisions of state is scanty, except for marathwada is no rain. For the second week it is scanty for all the sub divisions of the state.

Akola

- Under irrigated condition, chickpea (Jaki 9218, Digvijay, Vijay, PKV Kabuli 2, PKV Kabuli 4, Phule Krupa, Virat) can be sown preferably with BBF layout by November 15. To avoid incidence of seed/seedling rot, seed treatment with Trichoderma (biocontrol-fungi) @ 4.0 g/kg seed and for

better crop nutrition seed inoculation with biofertilizers rhizobium and PSB each @ 25 g/kg seed is advisable.

- Normal sowing time for irrigated wheat (AKW-3722, HD-2380, HD-2189, AKW-1071) is first fortnight of November. Under delayed sowing use varieties - AKW-381, HI-977, AKW-1071(Purna). Treat the seed with Carbendazim @ 2.5 g / kg seed, Azatobacter and PSB @ 25 g each / kg seed before sowing.

Parbhani

- Intercultural operations such as light hoeing and weeding should be done in Rabi sorghum.
- Carry out earthing up operation in banana.
- To control attack of *Helicoverpa armigera* in pigeonpea crop, spray Quinalphos 25 EC @ 28 ml or Chloropyriphos 20 EC per 10 liter of water.
- Spray Quinalphos 20 ml per 10 liter of water to control insects in Mango crop.
- To protect the animals from cold during early morning apply curtains of gunny bags for animal shed. Use electric bulbs in poultry shed.

Vidarbha

- Present cloudy weather is congenial for incidence of leaf eating caterpillar, army worm and stem borer in sorghum and other rabi crops. Spray of quinolphos 25 EC 15-20 ml in 10 lit of water to control these pests.
- Farmers are advised to avoid delayed sowing of rabi sorghum in dryland area having medium to deep black soil with sufficient moisture as there is chance of sugary disease attack.

Dapoli

- Due to cloudy weather condition, there is a possibility for incidence of mango hopper, if noticed, spray Deltamethrin 2.8% E.C. @ of 9 ml per 10 liter of water alongwith sticker.
- If tea mosquito bug is observed on cashew, spray Lambda Cyhalothrin 5% E.C. @ 6 ml per 10 liter of water along with sticker.
- Install methyl ugenol “Rakshak” trap @ 4 nos. per ha in cucurbitaceous vegetable crops for effective control of fruit fly.
- Protect the poultry birds from low temperature by providing electric bulbs as per the need.

Odisha

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over Odisha is 161.1 mm, which is 28% excess to the normal. The extended range weather forecast provided for next two weeks for Odisha is deficient for week-1 and excess for week-2.

- As the excess rainfall is forecasted during second week, grain discoloration may occur in paddy crop. Spray 1.5 g Streptocycline with 25 g Cupper Oxychloride per 10 litre of water to control this.
- Withhold the sowing/planting of greengram, blackgram and potato as excess rainfall is forecasted

during second week.

- Cover the vegetable nursery with polythene to avoid adverse effect of heavy rain. The rainfall and humid weather may cause wilting in early planted brinjal and tomato in the main field as well as in the nursery. To control it, go for spraying of 1.5 g Streptocycline with 25 g Cupper Oxychloride per 10 litre water.
- Cloudy sky and light rainfall favours the infestation of mustard aphid. To control spray 20 ml. Dimelhoate or 3.5 ml. Imidachlopid per 10 Liter water.
- In early sown rabi groundnut, the rainfall may aggravate the infestation of the collar rot disease. Spray 1.5 g Thiophoratemethyl per liter water.
- In the first week, complete picking of matured redgram to avoid viviparous germination.

Chhattisgarh

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over Chhattisgarh is 61.6 mm, which is 7% deficient to the normal. The extended range weather forecast provided for next two weeks for Chhattisgarh is scanty for both the weeks.

- For rabi crops, start the preparation of fields for the sowing of moong, urad, sunflower, lathyrus, gram and safflower, forage crops in November month.
- Treat the legume seed with Carbendazim @ 1.5 gram + Rhizobium culture @ 6 to 10 gram and Trichoderma powder @ 6 to 10 gram/kg seed before sowing.
- Farmers are recommended for earthing up in the banana plantations.
- Winter vegetables like cauliflower, cabbage and kholkhol early varieties should be selected. Nursery sowing can be done. Preparation for nursery sowing of tomato, brinjal, chillies and capsicum can be done and seed treatment by Thiram should be done @ 2 gram/ kg of seed.
- Keep the animals in the cattleshed with concrete / brick roof to avoid adverse effect of low temperature.
- Animals must be vaccinated against FMD, Haemorrhagic Septicaemia (HS) and Black quarter diseases.

Jharkhand

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over Jharkhand is 104.0mm, which is 32% excess to the normal. The extended range weather forecast provided for next two weeks for Jharkhand is scanty for week-1 and excess for week-2.

- Carry out the sowing of rainfed wheat with recommended varieties like HDR- 77, K-8027, Birsa genhu – 3 etc.
- Recommended varieties of Linseed for this region are Sweta, Shubhra, T-397 etc. 8-9 kg seeds are

required for cultivation in one acre.

- Farmers are recommended to sow barley with improved varieties like Jyoti, Ratna, D.L.-36, B.R.-32 (all irrigated condition) and B.R.-31, K.-125 (rainfed condition). Recommended seed rate is 40kg/ac.
- Farmers are recommended to take sowing of chickpea with Deshi (indigenous) gram (B.G.-372, B.G.-256, K.W.R.-108, Pant G.-186, Pant G. -114) and Kabuli gram(H.K.-94-134, B.G.-1053, B.G.-1003 etc.). 30 kg seeds for deshi variety and 40 kg seeds for Kabuli type varieties are required for one acre.
- There is a chance of powdery mildew disease incidence in green pea. Spray Kairathen @ 1 ml per liter of water or Sulfex @ 3 gm per liter of water to control it.

Gujarat

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over Gujarat is 15.5mm, which is 38% deficient to the normal. The extended range weather forecast provided for next two weeks for Gujarat is scanty for both the weeks

- Sowing of wheat may be done with varieties like GW-322 and GW-496.
- Sowing of rabi maize varieties Ganga safed-2 and GM-6 in 60x20 cm spacing is advised with basal dose of fertilizers @ 21 kg Urea and 130 kg DAP.
- Spray Triazophos 40EC or Acephate 75SP 10 ml per 10 litre of water in Chilly crop to control thrips.
- Farmers are recommended to keep the animals indoor during night time.

Rajasthan

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over meteorological subdivision of the state Rajasthan: West Rajasthan and East Rajasthan have never received rainfall over the period which is 100% deficient. The extended range weather forecast provided for East Rajasthan is scanty for both weeks and for West Rajasthan is deficient for first week and scanty for second week.

- Complete the sowing of lucerne and berseem for green fodder and oats for dual purpose during this week. The improved varieties are dual purpose oats: Kent, UPO-212, JHO-822. Berseem: Mescavi and Wardan, Lucerne: Anand-2 and RL-88.
- In mustard, thinning should be done by maintaining 10-20 cm plant to plant distance and apply 30 kg nitrogen along with irrigation where the crop has attained 32-35 days.
- Field should be prepared for sowing of wheat in next week. The mean temperature around 20 °C is suitable for sowing of wheat. The normal sowing of wheat is from 1st of November to 3rd week of November. The improved varieties are Raj-4037, Raj-3077, Raj- 3765, HD-2864, GW-322, Raj-1555, HI-8498, HI-1544 and Lok-1.
- Seeds should be treated with Bavistin or Thiram @ 2-2.5 g per kilogram of seed before sowing of

wheat. Recommended dose of fertilizer for N: P: K is 120, 50 and 40 kg /ha. At sowing, apply 5 kg ZnSO₄ /ha where Zn deficiency observed in wheat.

- Complete threshing of maize, sorghum, soybean and pulses
- Preparation of seed bed should be done for raising nursery of onion, chilli, brinjal, cauliflower, cabbage and tomato for rabi season.

Bihar

Rainfall situation

Rainfall received during the period of 01 October to 08 November 2017 over meteorological subdivision of the state Bihar is 49.6 which is 26% deficient. The extended range weather forecast provided for the state Bihar is scanty for the first week and excess for the second week.

- As weather would remain clear during the first week, farmers are advised to complete the harvesting and threshing of paddy giving it top priority.
- Sowing of rabi maize is advised. Apply 10-15 ton FYM, 50 kg nitrogen, 75 kg phosphorus 50 kg Potash per hectare during land preparation. Shaktiman-1 white, Shaktiman-2 white, Shaktiman-3 yellow, Shaktiman-4 yellow, Shaktiman-5 yellow, Ganga-11 orange yellow, Rajendra sanker makka-1 Rajendra sanker makka-2, and Rajendra sanker makka deepjwala varieties of hybrid maize and Dewki white, Lakshmi white and Suaan yellow varieties of composite maize are recommended for north Bihar. Seed rate@ 20kg/ha is advised. Seed should be treated with Thiram @2.5g /kg of seed.
- Sowing of pulses are advised. Pusa-256, KPG-59(Udai), and Pusa-372 varieties are recommended for sowing in north Bihar region. Seed should be treated with Vitavax@2gm/kg. To protect against kajla caterpillar (cut worm), seed should be treated with chlorpyrifos@8ml/kg. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed rate@75-80 kg/ha and spacing of 30cm X 10cm is advised.

Assam

Rainfall Situation

Rainfall received during the period of 01 October to 08 November 2017 over Assam is 216.9 mm, which is 32% excess to the normal. The extended range weather forecast provided for next two weeks for Assam is excess for both the weeks.

- Farmers are advised to prepare land for sowing of rapeseed and mustard crop. Apply lime @ 65.5 kg/bigha at least 15 days prior to sowing of seeds. The recommended varieties of rapeseed and mustard are M-27, TS-36, TS-38 etc.
- Farmers are also recommended to prepare the land for potato. Recommended potato varieties are Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Badshah, Kufri Sindhuri etc .
- Farmers are advised to start seedbed preparation for raising seedlings of tomato. Drench the beds with 1% solution of Captaf or Formalin. Recommended varieties are Punjab Chhuhara, Arka Alok,

Pusa Rubi, Sioux, Punjab Keshri, Arka Abhijit, BT-1 etc.

Haryana

Rainfall Situation

Rainfall received during the period of 01 October to 08 November 2017 over Haryana is 216.9 mm, which is 32% excess to the normal. The extended range weather forecast provided for next two weeks for Haryana is excess for first week and scanty for second week.

- Due to possibility of dry weather in second week, farmers are advised to start the sowing of Barley with recommended high yielding varieties.
- Due to possibility of favourable temperature farmers are advised to sowing of pulse crop with recommended varieties for irrigated area : C 235, HC 5 and un-irrigated or rainfed area: HC1. Farmers are advised to treat the gram seed with Bioderma 4 gram and 1 gram Vitavex mix with 5 ml water for 1 kg seed to controlling of fungal disease and also Rhizobium seed treatment advised as per university recommendation.
- Farmers are advised to complete the picking of cotton at the earliest as rainfall is forecasted in second week.
- Farmers are advised to complete the sowing of mustard crop with recommended varieties. Due to possibility of dry weather farmers are advised for thinning and weeding in timely sown mustard crop.

Uttarkhand

Rainfall Situation

Rainfall received during the period of 01 October to 08 November 2017 over Uttarkhand is 2.8 mm, which is 96% deficient to the normal. The extended range weather forecast provided for first week is excess and second week is scanty.

- In valleys, farmers are advised to provide light irrigation in cauliflower, cabbage, spinach, rai, radish and coriander after hoeing.
- In view of predicted weather conditions during the next weeks farmers are advised to complete the sowing for wheat, Barley, Lentil, Mustard.
- Sowing of potato should be done as soon as possible. Recommended cultivars are: -Kufri Badshah (Late blight tolerant), Kufri Jyoti (Short duration), Kufri Alankar, Kufri Chandramukhi.
- Harvest the mature kharif crops.
- Basin of temperate fruits trees should be cleaned. Layout should be prepared for establishing the new orchard.

Jammu

Rainfall Situation

Rainfall received during the period of 01 October to 08 November 2017 over Jammu and Kashmir is

0.3mm, which is 99% deficient to the normal. The extended range weather forecast provided for Jammu and Kashmir is normal for both the weeks.

- Sowing of wheat varieties viz. PBW-550, HD-2967 under irrigated conditions and var. viz. PBW-644, PBW-396 and WH-1080 under rainfed conditions may be carried out.
- Farmers are recommended to take sowing of barley (var. Ratna, Jyoti and Sonu) with seed rate 100 kg/ha in rainfed areas.
- Farmers are recommended to take sowing of mustard crop var. (RSPR-01, Kranti) in irrigated areas whereas under rainfed areas sowing of RSPR-03 can be carried on fields having conserved moisture.
- Farmers are advised to continue the sowing of Pea (var., AP-1, Bonnevillea, Rachna and Arkel); Chickpea (var., K-468, Gourav); Lentil (var., L-4147, L-9/12, PL-406) is in progress.
- Farmers are advised for hoeing & weeding in cole crops (knol khol, cabbage, cauliflower and broccoli). Sowing of Potato (var. Kufri Badshah, K.Sinduri, K.Chipsona & K.Sona) may be taken up.

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