



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

Validity: 16 February – 1 March, 2018

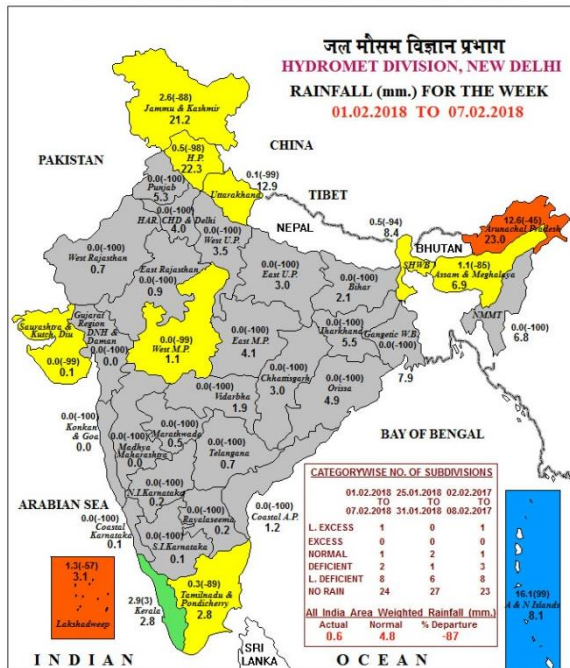
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&
Earth System Science Organization
India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (1st to 14th February 2018)

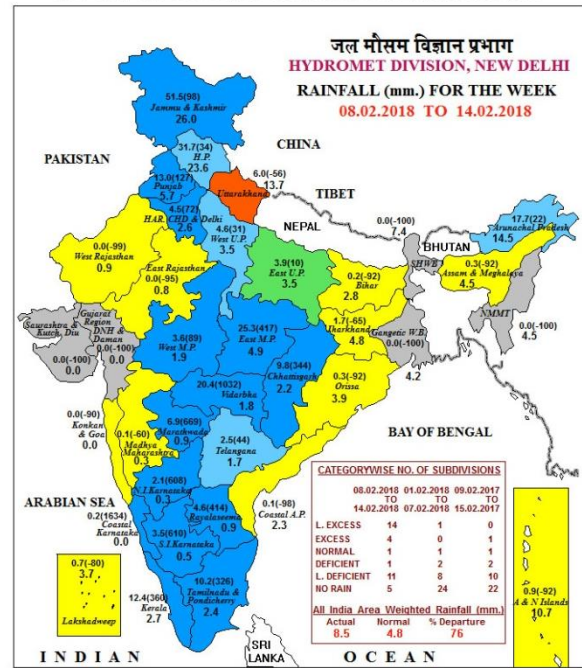
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: ■ L. EXCESS (+60% OR MORE) ■ EXCESS (+20% TO +59%) ■ NORMAL (+19% TO -19%)
■ DEFICIENT (-20% TO -59%) ■ L. DEFICIENT (-60% TO -99%) ■ NO RAIN (-100%) ■ NO DATA

NOTES:
[a] Rainfall figures are based on operational data.
[b] Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
Percentage Departures of Rainfall are shown in Brackets.

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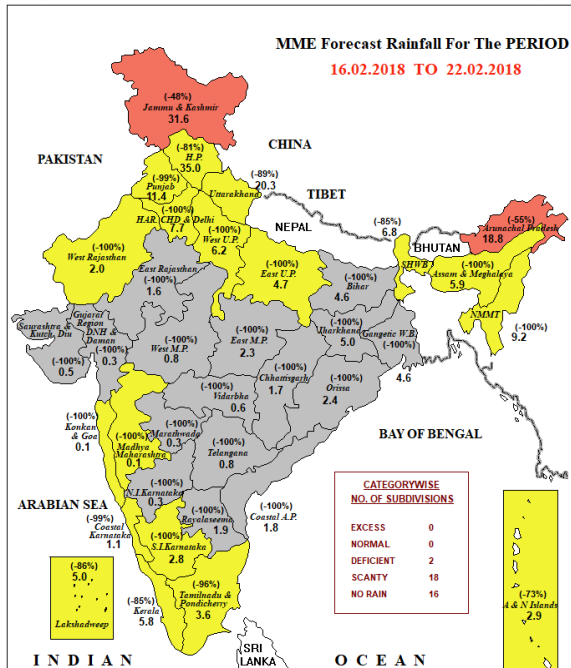
- Normal or above normal rainfall occurred during last two weeks in Kerala.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Chandigarh & Delhi, Uttar Pradesh, Arunachal Pradesh, Madhya Pradesh, Chhattisgarh, Marathwada, Vidarbha, Karnataka, Telangana, Rayalaseema, Tamil Nadu and Andaman & Nicobar Islands.
- Below normal rainfall/no rain occurred in either of the two weeks over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 14 February)

(16th February to 1st March 2018)

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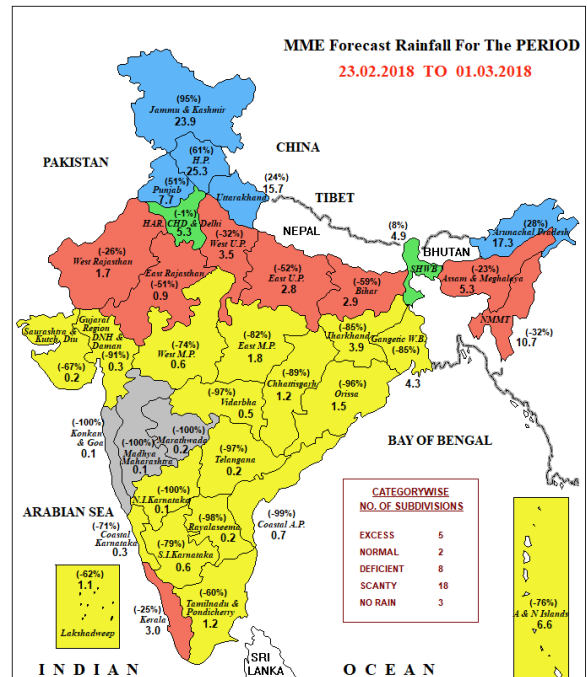


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NOTES:

- (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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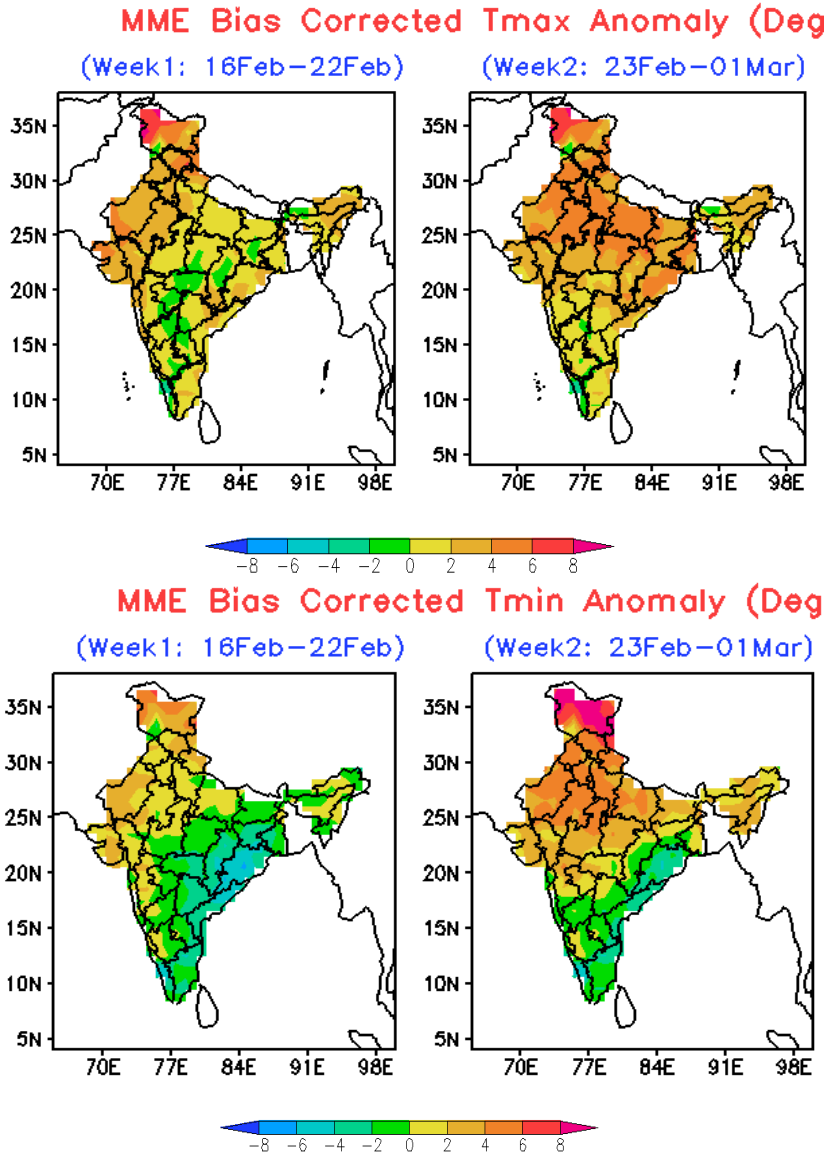
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Extended Range Rainfall Forecast

- **Week 1 (16.02.2018 to 22.02.2018):** Below normal rainfall/no rain is likely over the country.
- **Week 2 (23.02.2018 to 01.03.2018):** Extreme northern India (Jammu & Kashmir, Himachal Pradesh, Arunachal Pradesh, parts of Punjab and Uttarakhand) is expected to get above normal rainfall.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast for next 2 weeks (IC – 14 February)
(16th February to 1st March 2018)**



Tmax (Maximum Temperature)

- **Week 1 (16.02.2018 to 22.02.2018) and Week 2 (23.02.2018 to 01.03.2018):** Maximum Temperature is likely to be above normal over most of India (Transition to warming period is evident).

Tmin (Minimum Temperature)

- **Week 1 (16.02.2018 to 22.02.2018):** Some parts of eastern coastal belts of India and central India minimum temperature will be below normal.
- **Week 2 (23.02.2018 to 01.03.2018):** Minimum temperature over Northwest and central India will be above normal (Transition to night warming period is evident).

Strategic Agricultural Planning based on rainfall during next two weeks till

01st March 2018

Agromet Advisories

Tamil Nadu

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over Tamil Nadu is 16.8 mm, which is 26% deficit than the normal. The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) are scanty for both the weeks.

- Weather condition is favorable for the incidence of leaf webber/capsule borer in sesamum. To control, farmers are advised to spray Carbaryl 50% WP 1000 g/ha or Neem seed kernel extract 5% or Neem oil 2%.
- Leaf spot may occur in the banana crop under the current weather conditions. If the symptoms are noticed, farmers are advised to spray Dithane M45 0.2% solution twice at 15 days interval based on the intensity of the disease.
- Anticipated weather condition is favorable for aphid incidence in cotton. Farmers are advised to spray Dimethoate 30 EC 500 ml/ha (or) Acetamiprid 20% SP 50 kg/ha to control it.
- The probable weather condition is favourable for leaf folder and blast disease incidence in rice. So, farmers are advised to spray any one of the following insecticides.
 - ✓ Phospomidon 40% SL 1200 ml/ha
 - ✓ Thiamethoxam 25% WG 100 kg/ha
 - ✓ Fipronil 80% WG 50-62.5g 100 kg/ha
 - ✓ Flubendiamide 20% WG 125-250 g/ha.

Kerala

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over Kerala is 17.3 mm, which is 22% excess than the normal. The extended range weather forecast provided for next two weeks (09 to 15 February and 16 to 22 February and 23 February to 01 March) is scanty for week-1 and deficit for week-2.

- Farmers are advised for mulching with dried or green coconut leaves or coir pith to maintain moisture in coconut gardens.
- Farmers are advised to keep watch of against rhizome weevil in banana. Mulch the basins to conserve soil moisture. Irrigate once in three days. Against Sigatoka leaf spot disease, spray 1% Bordeaux mixture or Tilt 25 EC (1ml/lit of water) after cutting the severely affected leaves and burning them.
- The amount of sucking insects will be increasing due to increasing atmospheric temperature. So, farmers are advised to apply 2% neem oil+garlic+soap emulsion for control of aphids.

Karnataka

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over different meteorological subdivisions of Karnataka viz., North Interior Karnataka is 2.2 mm (20 % deficit than the normal), South Interior Karnataka is 3.5 mm (77% excess than the normal) and Coastal Karnataka are 0.2 mm (78 % deficit than the normal). The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) is scanty for all the meteorological subdivisions of the state during week-1, and for week-2 Coastal Karnataka and South Interior Karnataka is scanty and No rain for North

interior Karnataka.

South Interior Karnataka

- Mango: Dry spell situation exists since one month, it is favorable for higher flowering and it also congenial for infestation of powdery mildew diseases in mango. To control malformation in mango, farmers are advised to spray Lamda Cyhalothrin 5EC @ 0.5 ml/litre of water or sulphur dust (SULTAF) 80 W @ 3g/litre of water against the Powdery mildew disease.
- Farmers are advised to maintain the optimum room temperature in Sericulture, Poultry and Dairy units. Sides should be covered with curtains during cool hours of the day. Wet litter material should be removed regularly

North Interior Karnataka:

- Farmers are advised to take up moisture conservation practices, ploughing of land immediately after harvesting the rabi crops.
- Farmers are advised to give de-worming medicine to livestock and vaccinate (ET vaccine) sheep and goats against Enterotoxemia and for milch animals, regularly follow schedule of 1 kg feed + 50 g mineral mixture per 2 litres of milk yield and feed all the animals with both green fodder and dry fodder

Andhra Pradesh

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over different meteorological subdivisions of Andhra Pradesh viz., Coastal Andhra Pradesh is 0.2 mm (99 % deficit than the normal), Telangana is 2.5 mm (70% deficit than the normal) and Rayalseema is 4.6 mm (13 % deficit than the normal). The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) is scanty during week-1, and No rain during week-2 for all the meteorological subdivisions.

- Leaf folder and stem borer incidence is observed in paddy crop in North coastal, southern zone and scarce rainfall zone. For control of leaf folder and stem borer, farmers are advised to spray chloripyrifos 2.5 ml or cartap hydrochloride @ 2 g/litre of water or Flubendiamide @ 0.2ml/litre of water.
- Wherever incidence of pink boll worm is noticed above ETL, farmers are also advised not to prolong the crop duration and leave cattle or sheep/goat to graze on the leftover cotton stalks to avoid further carryover of the pest.
- The present weather conditions are congenial for powdery mildew in chilli in Krishna zone and southern zone. Spray wettable sulphur @ 3 g/L (or) hexaconazole @ 2 ml/L of water to control it.
- To control of leaf hoppers and powdery mildew in mango, spray Imidachloprid 0.3 ml/L + Carbendazim 1g/litre of water and wettable sulphur @ 3 g/litre (or) hexaconazole @ 2 ml/litre of water.

Maharashtra

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over different meteorological sub divisions of the state viz., Vidarbha is 20.4 mm (47% excess than the normal), Marathwada is 6.9 mm (33% excess than the normal), Madhya Maharashtra 0.1 mm (91% deficit than the normal), and Konkan & Goa 0.0mm (99% deficit from the normal). The extended range weather forecast provided for next two

weeks (16 to 22 February and 23 February to 01 March) are, During week-1 no rain for Konkan & Goa, Madhya Maharashtra and Marathwada and scanty for vidarbha, and during week-2 scanty for Konkan & Goa, Madhya Maharashtra and no rain for Marathwada and vidarbha.

Vidarbha

- Farmers are advised for cultivation of summer vegetables (okra, cluster bean, cowpea, cucumber and gourd) and nursery sowing of chilli, brinjal, tomato nursery can be initiated during this period because of better rainfall situations.
- Farmers are suggested for taking up summer green fodder, recommended crops/varieties are maize (African tall) or sorghum (Pusa-Chari, MP-Chari and SSG 898).

Marathwada

- Due to occurrence of rainfall, humidity increases which results in fruit spot disease in pomegranate crop, spray Copper hydroxide or Copper oxychloride 25 gm per 10 liter of water to control it. Due to humid weather condition, crop may get affected by bacterial blight disease. Adopt cleaning and proper sanitation measures to control the diseases.
- Present weather condition favors attack of thrips in chili, spray alternately Diamethoate 30% concentrate @ 15 ml or lambda Cyhalothrin 5% concentrate @ 6 ml per 10 lit. of water to control it.
- If infestation of gram pod borer is observed in late sown chickpea, spray Chlorpyrifos 20 EC @ 25 ml or Quinalphos 25 EC @ 20 ml per 10 liter of water.

Konkan Goa

- Present cloudy weather condition and also variation in difference between maximum and minimum temperatures favours the incidence of aphids and leaf minor in pulse crops. Farmers are advised to spray 10 ml Dimethoate or Lambda cyhalothrin 5% EC @ 6ml/10 liter of water at an interval of 15-20 days.
- As cloudy weather is forecasted, there is possibility for increased incidence of hopper, aphids and thrips on vegetable crops viz., brinjal, tomato, cabbage, chilli, etc. If thrips are noticed, spray Malathion @ 20 ml or Dimethoate @ 12 ml/10 liter of water
- Farmers are advised to protect the animals/poultry birds from low temperature by providing curtains and electric bulbs, as per the need.

Madhya Pradesh

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over different meteorological subdivisions of Madhya Pradesh viz., West Madhya Pradesh -3.6 mm (69 % deficit than the normal) and East Madhya Pradesh - 25.3 (13% deficit than the normal). The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) are: No rain for week-1 and Scanty for week-2 for both the meteorological subdivisions.

East Madhya Pradesh

- As minimum temperature rises due to cloud cover, farmers are advised to monitor incidence of gram pod borer in chickpea. If caterpillar number is more than 2 per m row length, apply Triazophos at 1.5 - 2 ml /litre of water.
- Mustard aphid may be prevalent in this weather conditions. If incidence occurs, spray Imidacloprid insecticide at 100 ml/500-600 litres of water.

Orissa

Rainfall situation

Rainfall received over Orissa during the period of 01 January to 14 February is 0.3 mm, which is 98% deficit than the normal. The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) are: No rain for week-1 and scanty for week-2.

- Increased temperature may favour the egg laying of stem borer in rice. To attract the butterflies, place 4 Pheromon Traps/acre, collect the adults and destroy them by burning by burying them under soil. Increased difference between daily maximum and minimum temperature may favour the infestation of blast in rice field. Spray 1 g Beam in one litre water to control it.
- High humidity may aggravate the infestation of mango hopper. In taller plants, give fumigation of neem leaves. Spray 20 ml Chloropyrifos or 3 ml Imidachloprid per litre water and after 1 week spray 3 g carbendazim / mancozeb per litre. All mango growers are requested to use hailnet and hailcap 1ft. above the mango plants to protect flower and nut drop as well as mechanical damage to the crops by hail storm.
- Panama wilt is noticed in banana. Uproot and burn the affected plant. Soil drenching with 2 g Carbendazim in one litre water thoroughly, particularly in root zone is suggested. Otherwise keep 5g Carbendazim / plant in Capsule in the root zone.

Jharkhand

Rainfall situation

Rainfall received over Jharkhand during the period of 01 January to 14 February is 1.3 mm, which is 95% deficit than the normal. The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) are: No rain for week-1 and scanty for week-2.

- Timely sown wheat crop is at heading stage and this stage is very much sensitive to moisture stress. Apply irrigation, wherever possible.
- To control the attack of pumpkin beetle in cucurbitaceous plant, immediately wet the soil near the root zone of the plant with the insecticide Chlorpyrifos (4 ml. per liter of water) and also spray the same insecticide on plant @ 2 ml. per liter of water. In case non-availability of the insecticide, broadcast the wood ash mixed with kerosin oil on the plant during early morning.

Bihar

Rainfall Situation

Rainfall of 0.2 mm was received during the period of 01 January to 14 February 2018 over Bihar, which is 99% deficit than the normal. The extended range weather forecast provided for next two weeks (16 to 22 February and 23 February to 01 March) are: No rain for week-1 and Deficit for week-2.

- Weather would remain suitable for field preparation and sowing of summer maize. Varieties *Suwan*, *Deoki*, *Ganga 11*, *Shaktiman-1*, 2, 3, 4 & 5 varieties are suitable for sowing in north Bihar region. Seed rate@20 kg per hectare should be used. Farmers are advised to treat seeds with Thiram and *Captaf* @2.5gm per kilogram of seeds.
- Sowing of sweet potato is advised. Varieties such as *Cross-4*, *Rajendra Shakarkand-35* and *Rajendra Shakarkand-92* are recommended for planting in this region. At the time of land preparation, apply 200 quintal compost, 60 kg Nitrogen, 40 Kg Phosphorus and 60 Potassium per hectare.
- As no rainfall is forecasted, farmers are advised to provide irrigation in timely sown wheat crop,

which is in booting to panicle initiation stage and also apply 30 kg nitrogen/ha after irrigation.

Assam

Rainfall Situation

Assam received 7.2 mm of rainfall during the period of 01 January to 14 February 2018, which is 74% deficit than the normal. The extended range weather forecast provided for (16 to 22 February and 23 February to 01 March) are: Scanty during week-1 and Deficit during week-2.

- As Scanty rainfall is forecasted, farmers are advised to go for irrigation in the onion crop at 7 days interval. To control downy mildew disease, farmers are advised to spray Ridomil @ 2.5gm/lit at an interval of 10 days.
- Farmers are advised to prepare land for growing of summer green gram & black gram. Sandy loam soil is more preferable. The recommended varieties of summer green gram are T9, Pant U 19, UG 157 etc. and for black gram Kopergaon, Pratap, AAU 39 etc are recommended varieties.
- Farmers are advised to vaccinate the 4-7 days old and 35 days old poultry birds with F1/ Lasota vaccine @ 1 drop through eye and nostril.

Haryana

Rainfall Situation

Rainfall is received during the period of 01 January to 14 February 2018 over Haryanais 9.5 mm, which is 61% deficit than the normal. The extended range weather forecast provided (16 to 22 February and 23 February to 01 March) for Haryana are: Scanty for week-1 and Normal for week-2.

- Due to high humidity level prevailed, there may be attack of alternaria blight/powdery mildew in mustard crop. If it is observed, spray 600 gram Mancozeb/Indophil M 45 in 300 liter water per acre when weather remains clear.
- Because of the possibility of dry and variable weather days, farmers are advised to apply light irrigation to vegetable crops and young fruit plants as per their requirement.
- Due to possibility of dry weather, farmers are advised to apply light irrigation in Berseem and cut the crop for fodder to feed livestock.
- Keep the animals under sheds during night hours for protection from cold. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with animal feed/fodder to keep them healthy.

Punjab

Rainfall Situation

22.3 mm of rainfall was received during the period of 01 January to 14 February 2018 over Punjab, which is 38% deficit than the normal. The extended range weather forecast provided (16 to 22 February and 23 February to 01 March) for Punjab are: Scanty for week-1 and Excess for week-2.

- After the appearance of yellow rust disease in wheat, spray with 200 ml Tilt/Bumper/Shine/Stilt/Compass/Markzole 25 EC in 200 litres of water per acre to check its further spread.
- Monitor wheat and mustard crop for aphid attack. If the population reaches ETL, spray with recommended insecticides like Actara (Thiamethoxam 25 WG @ 20 g/acre in wheat and 40 g/acre in mustard) using 80-100 litres of water.
- If symptoms of late blight appears in potato, spray the crop with Indofil M-45/Kavach @ 500-700 g

in 250-350 litres of water per acre.

- Deworming should be done in calves, especially against Ascariasis/Malap. Feed well chaffed berseem mixed with wheat straw.

Uttarkhand

Rainfall Situation

23.6 mm of Rainfall received during the period of 01 January to 14 February 2018 over Uttarkhand, which is 70% deficit than the normal. The extended range weather forecast provided over next two weeks (16 to 22 February and 23 February to 01 March) are: Scanty for week-1 and Excess for week-2.

- Foliar spray of 2% urea should be done in wheat for good vegetative growth.
- If symptoms of yellow rust appears, spraying of crops with Dithane M- 45 @ 2.5 grams per litre of water should be done.
- Due to dry and increasing temperature conditions, farmers are advised to monitor their mustard crops against attack of aphid. Spraying Imidacloprid @ 0.5 to 1.0 ml per litre of water is recommended to control it.
- In Poultry, keep the chicks warm by providing artificial light in the poultry sheds. Feed mineral mixture and vitamins.

Himachal Pradesh

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over Himachal Pradesh is 41.4 mm, which is 71% deficit from the normal. The extended range weather forecast provided (16 to 22 February and 23 February to 01 March) over Himachal Pradesh is Scanty and Excess for Week-1 and 2, respectively.

- Keeping in view of dry weather condition and rising maximum temperature, farmers are advised for monitoring of mustard crop against aphid attack.
- Weather is also conducive for the incidence of yellow rust in wheat. Farmers are advised to regularly monitor their fields.
- Weather is conducive for attack of pests like rice weevil, lesser grain borer and rice moth in stored grains.

Jammu

Rainfall Situation

Rainfall received during the period of 01 January to 14 February 2018 over Jammu and Kashmir is 58.6 mm, which is 59% deficit than the normal. The extended range weather forecast provided (16 to 22 February and 23 February to 01 March) over Jammu & Kashmir is Deficit and Excess for Week-1 and 2, respectively.

- If yellow rust is noticed in wheat, apply Propaconazole (Tilt) @ 25ml in 25 lits. of water and repeat the same after next 10-15 days.
- Due to the presence of sufficient moisture in the soil, apply second dose of urea @ 2.0 kg/kanal in normal and late sown wheat, before the ear head emergence.
- In chickpea crop, the weather is congenial for the outbreak of Aschochyta blight and wilt diseases. If the symptoms were observed, farmers are advised to drench the affected spots with Bavistin

@10ml/ lit.

- The weather condition favours the outbreak of aphids in late sown mustard crop. If the 10 cm of the branch have more than 20 aphids, spray the crop with imidacloprid @ 0.3 ml / lits. of water or (Dimethoate) rogor 30 EC @ 1ml/lits. of water.
- Farmers are advised to spray copper oxychloride @ 3gm/lit in citrus to check dieback, gummosis, anthracnose and citrus canker which may occur due to present temperature and RH. Apply 0.5ml/lit of Dinocap to check mango powdery mildew.

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