



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

Validity: 11 to 24 January 2019

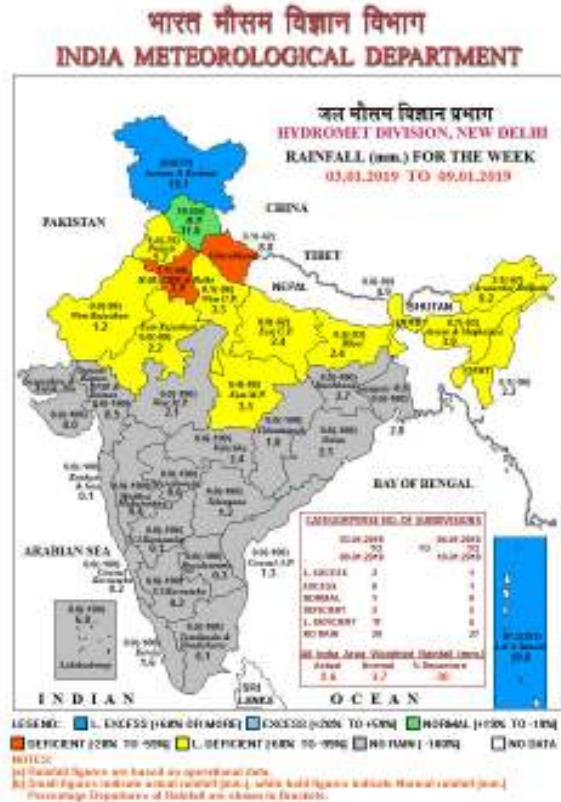
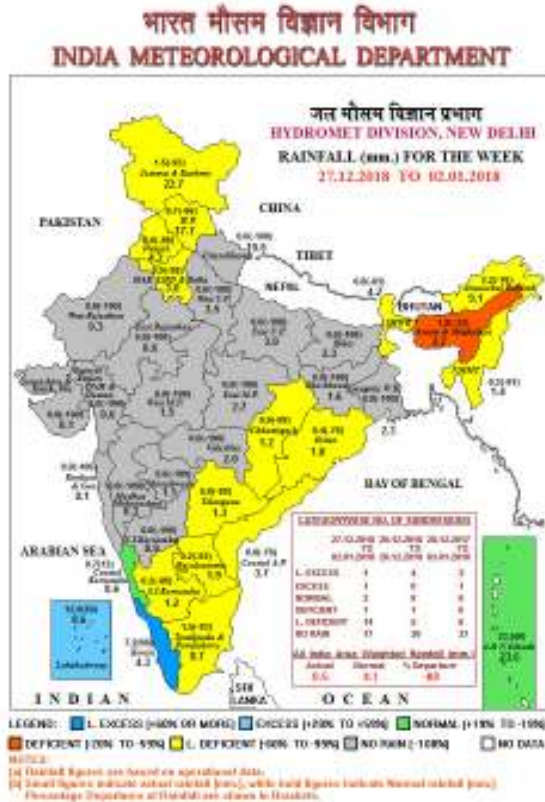
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&
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Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall

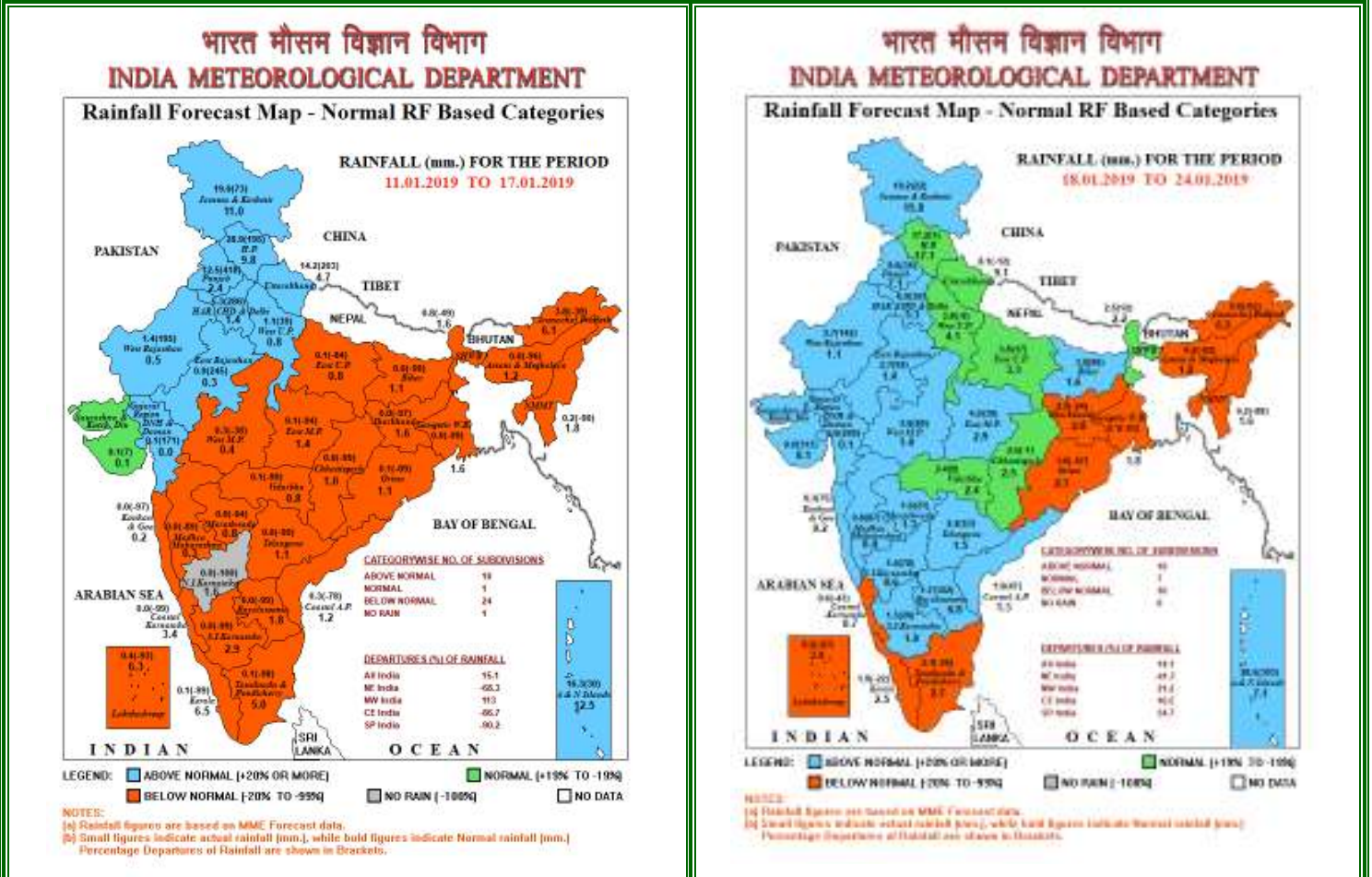
(27th December 2018 to 9th January 2019)



- Normal or above normal rainfall occurred in both the weeks in Andaman & Nicobar Islands.
- Normal or above normal rainfall occurred in either of the two weeks in Jammu & Kashmir, Himachal Pradesh, Coastal Karnataka, Kerala, Lakshadweep.
- Below normal rainfall / no rain occurred over rest of the country.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 09 January) (11th to 24th January 2019)



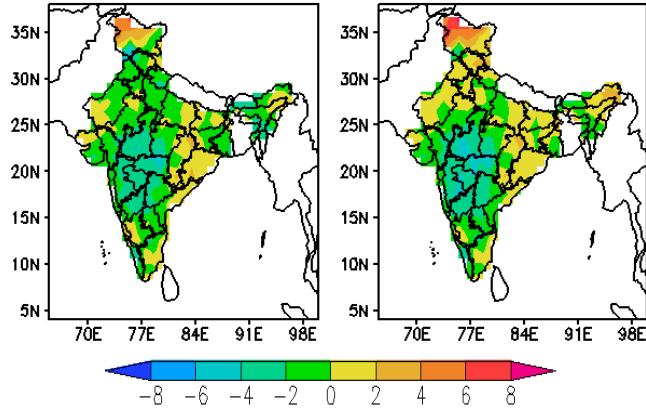
Extended Range Rainfall Forecast

- **Week 1 (11.01.2019 to 17.01.2019) and Week 2 (18.01.2019 to 24.01.2019):** Western Disturbance associated precipitation over extreme north India. Bay of Bengal (south and adjoining central) will remain active during the period.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 09 January)
(11th to 24th January 2019)**

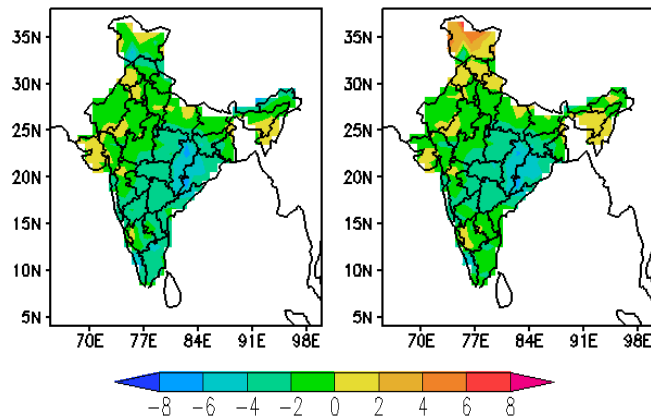
MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 11Jan–17Jan) (Week2: 18Jan–24Jan)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 11Jan–17Jan) (Week2: 18Jan–24Jan)



Maximum Temperature (Tmax)

- **Week 1 (11.01.2019 to 17.01.2019) and Week 2 (18.01.2019 to 24.01.2019):** Mainly below normal Tmax over most of central and western India, whereas, Tmax over northwest, northeast and adjoining eastern parts will be above normal.

Minimum Temperature (Tmin)

- **Week 1 (11.01.2019 to 17.01.2019) and Week 2 (18.01.2019 to 24.01.2019):** Cold wave is expected to continue for most parts of eastern and central India in week 1. Higher negative anomaly belt concentrate over eastern belt. Tmin over North and northwest India will be just normal to slightly below normal.

Strategic Agricultural Planning based on rainfall during next two weeks till 24th January 2019

Agromet Advisories

Kerala

No rainfall received during the period from 01 to 10 January 2019 over Kerala. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Quick wilt disease is expected in pepper. Farmers are advised to drench the soil with 0.2% Copper oxy chloride and apply Bordeaux mixture as a prophylactic measure to control.
- Destroy the affected leaves along with the Spodoptera in Banana. If Spodoptera attack is severe, spray quinolphos 2 ml per one litre of water or chlorantraniliprole 3 ml per 10 litre of water.
- White powdery spots are seen on the leaves of the affected cucurbitaceous vegetables. To control, apply 1.5 ml tebuconazole or 0.5 ml difenoconazole per one litre of water. After 10 days, apply 20 gram of Trichoderma viride per one litre of water to control powdery mildew disease of vegetables.
- There is a chance of aphids in cowpea. Apply 2% neem oil emulsion or apply 20 gram *Verticillium lecanii* per one litre of water in 10 days intervals. If aphid attack is severe, apply 3 ml Imidacloprid or 2 gram Thiamethoxam per 10 litre of water.

Karnataka

No rainfall received during the period from 01 to 10 January 2019 over different meteorological subdivisions of Karnataka viz, North Interior Karnataka, South Interior Karnataka and Coastal Karnataka. The extended range weather forecast provided for 11 to 17 and 18 to 24 January over North Interior Karnataka is no rain for week-1 and above normal rain for week-2, over South Interior Karnataka is below normal for week-1 and above normal for week-2 and over coastal Karnataka is below normal for both the weeks.

South Interior Karnataka

- To protect the pulse grains from storage pests apply oils of Castor/ linseed/honge/neem oil @3-5 ml per kg of grains.
- Clear the weeds in Mango orchard, Guava and Sapota.

Tamil Nadu

No rainfall received during the period of 01 to 10 January 2019 over Tamil Nadu. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Prevailing weather condition is favorable for Leafhopper, Thrips and Stem weevil incidence in cotton. To control sucking pest, spray Imidacloprid 200 SL 100 ml/ha or Fipronil 5%SC 1500-2000 ml/ha.
- To control ear head bug in sorghum, spray Carbaryl 10 D @ 25 kg/ha or Malathion 5 D @ 25 kg/ha.
- Prevailing weather condition is favourable for corn worm infestation in maize. To control corn worm, spray Carbaryl 25 kg/ha or Phosalone 25 kg/ha.

Maharashtra

No rainfall received during 01 to 10 January 2019 over different meteorological sub divisions of the state viz., Konkan, Madhya Maharashtra, Vidarbha and Marathwada. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) over all the subdivisions of Maharashtra is below normal for week-1 and above normal over Konkan region, Marathwada and Madhya Maharashtra and normal over Vidarbha for week-2.

Marathwada

- Irrigation management should be done in wheat crop.
- To reduce the infestation of pod borer in chickpea, spray Quinalphos 25 % @ 400 ml or Emamectin benzoate 5 % @ 80 gram per acre.
- To control army worm in maize crop, spray Thiamethoxame 12. % + Lamda cyhalothrin 9.5 % @ 50 ml per acre.
- Top dressing of 40 kg Nitrogen per hectare should be done in sugarcane crop planted in the month of October.

Vidarbha

- With prevalence of continue dry weather, need based irrigation is advisable in *rabi* crops and vegetables.
- To moderate the impact of severe cold, covering of nursery and young fruit plants with thatches of straw, application of organic mulches on soil surface/tree basins and creating air blanket of smoke particularly in orchards/fields, is advisable.
- Lower minimum temperature regime is congenial for buildup of sap sucking aphids particularly in irrigated / late sown safflower crop and for above ETL level incidence (30% infested plants). To control, undertake spray with dimethoate 30% EC @ 13 ml per 10 litres of water.
- To control helicoverpa pod borer in chickpea, undertake spray of Chlorantraniliprole 18.5% SC 2.5 ml or Emamectin benzoate 5% SG @ 3 g or Quinolphos 25% EC @ 20 ml in 10 litres of water.

Madhya Maharashtra

- In timely sown irrigated wheat, application of half of recommended dose of Nitrogen should be given after 3 weeks of sowing i.e. after first weeding at the time of irrigation.
- For good fruit setting in Mango spraying of 0:52:34 @ 100 gm per 10 litre water is recommended.
- For pod borer in chick pea, install Helilure traps @ 5 no./ ha If the incidence is more spray Chlorpyrifos/ Quinolphos @ 15-20 + 10 litre of water.
- For control of powdery mildew disease in the late pruned ber, spray 80 WP wettable sulphur 20 gram and karathane 5 ml per 10 litres of water in alteration at 10 – 12 days interval.

Konkan

- Farmers are advised to provide irrigation to groundnut and rice crop.
- If the incidence of shoot and fruit borer is noticed on tomato and brinjal vegetable crops, collect and

destroy all infected shoots and fruit and spray Fenvalerate 10 ml per 10 litres of water.

- Spray Imidacloprid 17.8% SL @ 6 ml per 10 litre of water to control the incidence of mango hoppers.

Chhattisgarh

No rainfall received over Chhattisgarh during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for week-1 and normal for week-2.

- There is possibility of infestation of pod borer in chick-pea. Hand picking should be done for control.
- Due to cloudy weather, there is chance of aphid attack in oilseed, pulses and vegetables. Therefore, farmers are advised to do continuous monitoring and spray neem based pesticides when initial outbreak is shown.
- For control of broad leaved weeds in wheat crop at 30-35 days old age crop, 500 grams 2,4-D mixed in 200 litre of water can be sprayed.
- Nipping should be done in 40-45 days crop of gram.

Odisha

No rainfall received over Odisha during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Complete transplanting of onion by this week. Uproot the seedlings when attain 12-15 cm height.
- Possibility of yellow mosaic virus attack in pulse crop, to control, spray Imidacloprid 17.8% S.L @ 1ml/ 3 litre of water.
- Mustard and groundnut crop can be affected by Leaf minor and Jassid. To control spray, Thiamethoxam 25% W.G. @ 0.2gm or Imidacloprid 17.8 S.L. @ 0.3 ml or Acetamiprid 20% S.P.@ 0.25gram/litre of water.

Uttar Pradesh

Amount of rainfall received over East Uttar Pradesh region is 0.9 mm (74% deficit) and West Uttar Pradesh is 0.1 mm (97% deficit) during 01 to 10 January 2019. The extended range weather forecast provided for two weeks (11 to 17 and 18 to 24 January) for West Uttar Pradesh is above normal for week-1 and normal for week-2 and East Uttar Pradesh is below normal for week-1 and normal for week-2.

- There is possibility of pod borer in field pea, hence apply 5% malathion powder @ 30 kg/ha or monochrotophos 36EC @ 750 ml in 700-800 litre of water.
- Due to dry weather condition, farmers are advised to irrigate the wheat crop timely. If irrigation has been given then apply 30 kg N/ha through urea/ammonium sulphate.
- Transplanting of summer brinjal may be done
- Apply fertilizer and manures in the garden of litchi
- Transplanting of tomato maybe done at 60x45 cm distance.
- In wheat, there is possibility of Zinc deficiency hence advised for spraying of 5 kg ZnSO₄ + 20 kg Urea/ha in 1000 litre of water.

Bihar

Amount of rainfall received over Bihar is 0.2 mm (94% deficit) during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for week-1 and above normal for week-2.

- Give second irrigation in wheat crop, which is in 45-50 days stage. Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage.
- Monitoring is advised for infestation of fruit borer in tomato. As biological management, spraying of *Beauveria bassiana* @1 gram /litre of water is advised.
- Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/litre of water is advised.
- Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.

West Bengal

No rainfall received over Gangetic West Bengal during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Due to increase in temperature, phoma and blight infestation is observed in Potato. Thus immediate control measure (Metalaxyl + Mancozeb mixture @ 2.5 g per litre of water) should be taken.

Jharkhand

No rainfall received over Jharkhand during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Interculture operations may be done in pulse and oilseed crops to conserve soil moisture. Irrigate the pulse crops like gram, pea and lentil after 50-55 days of sowing (prior to flowering stage).
- Broadcast urea @ 22 kg per acre after irrigation in 40 - 45 days and 20 - 25 days old wheat crops. However, before urea application weeding is must.
- Mustard and others crops like pea, beans are attacked by aphids. Spray the insecticide Dematon (Rogor) @ 1 ml per litre of water to control the aphid.

Rajasthan

No rainfall received over East Rajasthan and West Rajasthan during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) for West and East Rajasthan is above normal for both the weeks.

- Apply second irrigation in wheat at tillering stage with $\frac{1}{4}$ dose of nitrogen (65 kg urea/ha).
- Farmers are advised to apply irrigation in mustard where the crop is at grain development stage.
- Regular monitoring for insect-pest attack in mustard is recommended and follow plant protection measures. For the control of aphid, spray Dimethoate 30 EC 875 ml per ha.
- For the control of broad leaves weeds spray of 2,4-D ester salt @ 500 gm a.i./ha in wheat where the

crop is at 30-35 days. For the control of wild oat and *Phalaris minor*, spray of Isoproturon @ 0.75 kg a.i./ha or Metoxuron @ 1.25 kg a.i./ha in 30 to 35 days wheat crop.

- Spray 2 % urea or K₂SO₄ in pea crop for proper growth of pods and to protect from frost injury.

Assam

Rainfall received over Assam is 0.7 mm (85% deficit) during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is below normal for both the weeks.

- Due to low night temperature and thick fog, farmers may observe aphid attack in rapeseed and mustard crop. To control this pest, spray Dimethoate 30EC or Chloropyrifos 20EC 0.5 litre/ha with a spray volume of 500-700 litre of water/ha.
- Due to favourable weather, aphid incidence may be observed in the potato crop. Infested crop may also show leaf roll symptoms caused by potato leaf roll virus. To control this pest, spray Malathion 50EC @ 1.5 litre in 500-600 litre of water for one hectare cropped area.
- Due to favourable weather, late blight disease may be observed in tomato crop. To control, spray Indofil M-45 @ 2.5g/litre of water against the disease.

Haryana

Rainfall received over Haryana is 1.7 mm rainfall (66% deficit) during 01 to 10 January 2019. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is above normal for both the weeks.

- Do intercultural operation to conserve soil moisture and apply need based irrigation in wheat crop.
- Apply need based irrigation if needed in mustard crop and keep monitoring for insect/pest and diseases.
- Due to fall in night temperature, keep the animals under shed. Provide 50 grams iodized salt and 50 to 100 grams mineral mixture daily with animal feed/fodder to keep them healthy.

Himachal Pradesh

Himachal Pradesh has received 18.9 mm of rainfall during 01 to 10 January 2019, which is 16% deficit. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) is above normal for week-1 and normal for week-2.

- Thinning and weeding is recommended in timely sown mustard crop.
- Add mulch material in space between two rows of vegetables crops for conservation of soil moisture and maintaining the soil temperature.
- Farmers are advised to start earthing-up in potato if crop has attained a height of 15-22 cm.
- Temperature has fallen and cold wave has gripped the area, so protect the newly born calves and animals from cold.

Jammu

Rainfall received during 01 to 10 January 2019 over Jammu is 27.7 mm, which is 37% excess. The extended range weather forecast provided for next two weeks (11 to 17 and 18 to 24 January) over Jammu is above normal for both the weeks.

- In late sown wheat crop, apply Isoproturon @ 0.75 kg a.i + 2, 4-D ethyl ester @ 500 ml/ ha during evening, if crop is 30-35 days old i.e. 4-6 leaf stage to control weeds.
- In normal sown wheat apply 2nd dose of urea (25%) as top dressing.
- Due to congenial weather if aphid attack is observed, spray Chlorpyrifos 20EC @ 0.05% or Monochrotophos 36 WSC @ 0.04%.
- Wilt and blight attack on *rabi* pulses is expected, if observed apply Bavistin/carbendazim @ 3gram/litre of water.
- To control potato leaf curl and tomato leaf curl virus, spray mancozeb @ 0.25% during clear weather, if attack of early blight in tomato and potato is observed. To control late blight of potato, spray crop with Ridomil-MZ or Mancozeb @ 0.25%.

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