



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

Validity: 05 to 18 October 2018

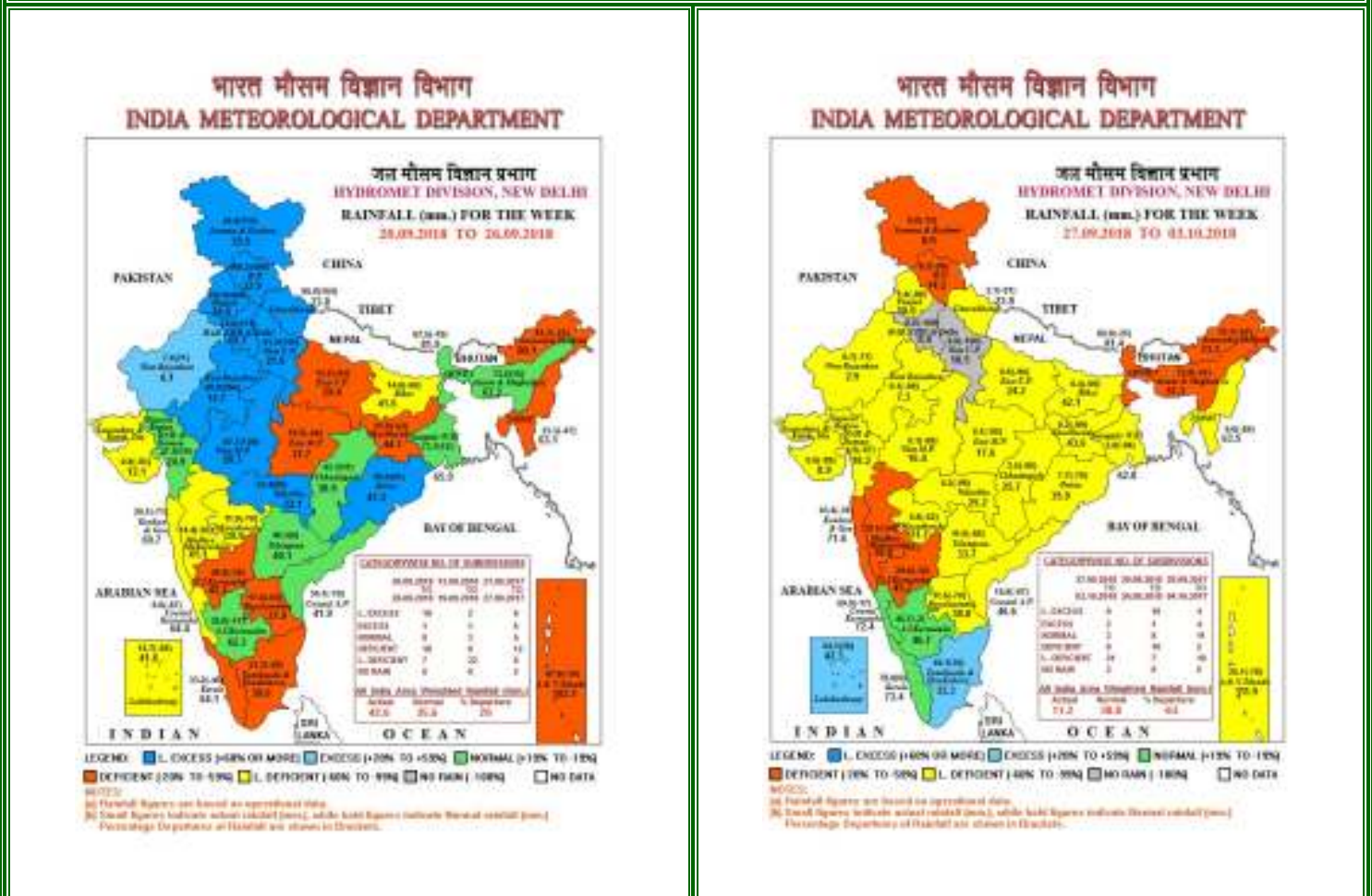
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**Realized Rainfall and Extended Range Forecast
(Rainfall and Temperatures)**

Realized Rainfall

(20th September to 3rd October 2018)



- Normal or above normal rainfall occurred during last two weeks in South Interior Karnataka.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Haryana, Chandigarh & Delhi, Punjab, West Uttar Pradesh, Rajasthan, Gujarat Region, West Madhya Pradesh, Chhattisgarh, Vidarbha, West Bengal & Sikkim, Odisha, Assam & Meghalaya, Telangana, Coastal Andhra Pradesh, Coastal Karnataka, Kerala, Tamil Nadu and Lakshadweep.
- Below normal rainfall occurred in both the weeks in East Uttar Pradesh, East Madhya Pradesh, Bihar, Jharkhand, Nagaland, Manipur, Mizoram & Tripura, Saurashtra & Kutch, Konkan & Goa, Madhya Maharashtra, Marathwada, Rayalaseema, North Interior Karnataka and Andaman & Nicobar Islands.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (IC – 03 October) (5th to 18th October 2018)



Extended Range Rainfall Forecast

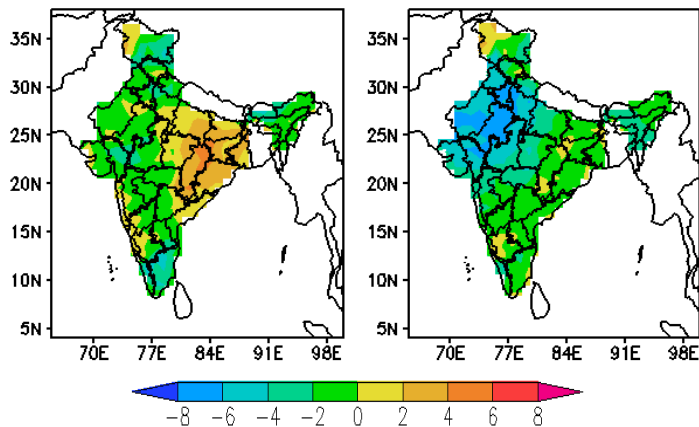
- **Week 1 (05.10.2018 to 11.10.2018):** Above normal rainfall with heavy rainfall over Kerala and adjoining Tamil Nadu and also over western coastal region extending upto Gujarat coast.
- **Week 2 (12.10.2018 to 18.10.2018):** Above normal rainfall over North West India associated with the re-curvedure of the system.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast
for next 2 weeks (IC – 03 October)
(5th to 18th October 2018)**

MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 05Oct–11Oct)

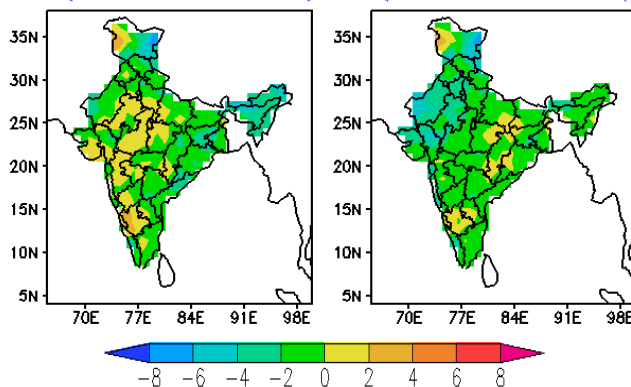
(Week2: 12Oct–18Oct)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 05Oct–11Oct)

(Week2: 12Oct–18Oct)



Maximum Temperature (Tmax)

- **Week 1 (05.10.2018 to 11.10.2018) and Week 2 (12.10.2018 to 18.10.2018):** Mostly above normal Tmax over eastern region (Uttar Pradesh, Bihar, Odisha, West Bengal, Chhattisgarh, east Madhya Pradesh) during week 1 and below normal over rest region. Tmax is expected to fall over most of India after that.

Minimum Temperature (Tmin)

- **Week 1 (05.10.2018 to 11.10.2018) and Week 2 (12.10.2018 to 18.10.2018):** Mostly normal to below normal Tmin during the period.

Strategic Agricultural Planning based on rainfall during next two weeks till 18th October 2018

Agromet Advisories

Kerala

Rainfall received during the period from 01 June to 04 October 2018 over Kerala is 2549.3 mm, which is 23% excess than normal. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is above normal for week-1 and normal for week-2.

- There is a chance of Sigatoka disease in banana. As a precaution, spray Pseudomonas 20g/litre. In case of severe attack, spray 2 ml hexaconazole or 1 ml propiconazole per one litre of water by mixing it with a sticker and spray on both the surface of the leaf.
- Shoot and fruit borer affected parts in cowpea can be removed. Apply 5% Neem Kernel Suspension to control shoot and fruit borer in the initial stage. Spray Flubendiamide 2ml/10 litres of water or Chloramtraniliprol 3 ml/10 litres if the attack is severe.
- There is a chance of foot rot in pepper. Add 2 kg Trichoderma to a mixture of 90 kg FYM and 10 kg Neemcake and keep for two weeks with sufficient moisture. Add 2.5 kg of this mixture to each matured vine to control foot rot of pepper.

Karnataka

Rainfall received during the period from 01 June to 04 October 2018 over different meteorological subdivisions of Karnataka viz, North Interior Karnataka is 362.1 mm (31% deficit), South Interior Karnataka is 691.4 mm (1% excess) and Coastal Karnataka is 3080.2 mm (1% deficit). The extended range weather forecast provided for 05 to 11 and 12 to 18 October over North Interior Karnataka is below normal for both the weeks, over coastal and south interior Karnataka is above normal for week-1 and normal for week-2.

North Interior Karnataka

- Plough the land across the slope which is to be spared for sowing of *Rabi* crops so as to facilitate better conservation of soil and soil moisture.
- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and *Haemorrhagic Septicaemia*.
- Vaccinate (ET vaccine) sheep and goats against Enterotoxemia.

South Interior Karnataka

- Due to continuous rainfall received last couple of days, intercultural operation is recommended for overcome weed infestation.
- To control stem borer in Maize, spray Quinolphos-25 EC @ 2ml/litre of water or Chlorophyrifos - 20 EC @ 2ml/litre of water.
- If pod borer noticed in red gram, farmers are advised to spray Indoxycarb 14.5sc @ 1 ml/litre of water.

Tamil Nadu

Rainfall received during the period of 01 June to 04 October 2018 over Tamil Nadu is 306.5 mm, which is 8% deficit as compared to the normal. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is above normal for week-1 and normal for week-2.

- Adopt soil and water conservation practices like broad bed and furrow, compartmental bunding and ridges and furrows for the dryland crops to be raised during the ensuing of north-east monsoon season.
- Provide drainage facility to drain out excess water in the chilli field.
- Farmers are advised to monitor army worm incidence in maize. The larvae scrapping the leaves, makes small to medium elongated pin holes and causes loss of top portion of leaves. If symptoms were noticed, spray any one of the following pesticide to control.
 - Chlor Andrinilburol - 0.3 ml/litre.
 - Emamexon Benzoate - 0.4 ml/litre.
- Prevailing weather condition is favorable for Citrus canker disease incidence. To control spray Copper OxyChloride 0.2% at fortnight intervals.

Maharashtra

Rainfall received during 01 June to 04 October 2018 over different meteorological sub divisions of the state viz., Konkan: 2895.1 mm (2% deficit), Madhya Maharashtra: 670.4 mm (10% deficit), Vidarbha: 875.4 mm (9% deficit) and Marathwada: 538.7 mm (22% deficit). The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) over Marathwada is below normal for week-1 and normal for week-2, over Madhya Maharashtra is normal for both the weeks, over Vidarbha is below normal for week-1 and above normal for week-2 and over Konkan region is above normal for both the weeks.

Marathwada

- Harvesting of mature soybean crop should be done. One to two days after drying threshing operation can be carried out.
- For management of sucking pest in cotton crop take a spray of Buprofezin 25 % @ 400 ml or Pyriproxyfen 5 % + Fenprothrin 15 % @ 200 ml per acre. Protective irrigation should be applied as per availability and requirement of water in cotton crop.
- To avoid the attack of white grub in sugarcane crop, soil application of phorate granular 10 % @ 25 kg per hectare should be applied.

Konkan

- Carryout harvesting of early rice varieties in morning hours and follow immediate threshing of rice, the threshed grains should be kept under dried sun for 3 to 4 days.
- To control the attack of ear head bug on finger millet at milky stage, take a spray with

Cypermethrin 25% EC @ 0.5 ml/litre of water.

- Provide irrigation to coconut and arecanut orchard as per requirement.
- Protect farm animals and poultry birds from increasing temperature.

Vidarbha

- In pigeon pea undertake drenching with copper oxychloride @ 25 g / 10 litres of water to avoid incidence of wilt and root rot, as soon as possible after symptoms.
- For control of sap sucking pest (aphid, jassid, thrips, white fly) in cotton undertake spray of azadirachtin 0.15%(1500 ppm) 25 ml or azadirachtin 0.03% (300 ppm) 50 ml or imidacloprid 17.8% 2.5 ml or Fipronil 5% SC @ 35 ml per 10 litres water.
- Undertake harvesting of matured soybean and ensure safe storage of harvested produce from sudden rain showers.

Andhra Pradesh

Amount of rainfall received over Coastal Andhra Pradesh region is 584.1 mm (3% deficit) and Rayalaseema is 253.8 mm (39% deficit) during 01 June to 04 October 2018. The extended range weather forecast provided for two weeks (05 to 11 and 12 to 18 October) for Coastal Andhra Pradesh is below normal for week-1 and above normal for week-2 and Rayalaseema is normal for both the weeks.

- Incidence of sucking pests observed in early sown groundnut crop in Ananthapuramu, Kurnool, Chittoor districts. Farmers are advised to spray monocrotophos@1.6ml/litre or Dimethoate @2ml/litre of water for control of sucking pests.
- Incidence of army worm is observed in maize crop in Ananthapuramu, Chittoor, Kurnool, Srikakulam, East Godavari districts. Farmers are advised to take up spraying of Emamectin Benzoate @ 0.5 g/litre or Lamda cyhalothrin@1ml/ litre of water for control of army worm.
- Incidence of sucking pests and leaf and boll rot observed in cotton crop in Krishna, Guntur, Prakasam, Ananthapuramu, Kurnool districts. Farmers are advised to spray Imidacloprid @ 0.4 ml/litre or monocrotophos@ 1.6 ml/litre for control of sucking pests.

Chhattisgarh

Rainfall received over Chhattisgarh during 01 June to 04 October 2018 is 1102.5 mm, which is 5% deficit than normal. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and above normal for week-2.

- For winter vegetables like cauliflower, cabbage and kholchol, early varieties should be selected and nursery sowing can be done.
- Farmers should go for earthing up in the banana plantations.
- Blast disease in rice is observed in many rice fields (boat like spots/lesions), Tricyclazole fungicide @ 0.6 grams/litre water can be sprayed or Isoprothiolane @ 1ml/litre spray should be done so that disease can be effectively controlled. The spray should be repeated after 10-12 days as per intensity of the disease.

Bihar

Rainfall received over Bihar during 01 June to 04 October 2018 is 770.8 mm, which is 26% deficit. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and normal for week-2.

- In view of dry weather condition, farmers are advised to give irrigation in paddy crop, which is in reproductive stage. Moisture stress at this stage would negatively impact the production.
- Regular monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables crop. For prevention, spraying of Imidacloprid 17.8 %SL @ 0.3ml/litre of water is advised.
- Nursery sowing of late varieties of cauliflower such as Maghi, Snoking, Pusa snoking-1, Pusa-2, Pusa snowball-16 and Pusa snowball K-1 is advised to farmers.
- Monitoring is advised for infestation of fruit and shoot borer in brinjal. Application of 1.0 gram Carbofuran 3 g per plant is advised near root zone after ten days of planting.

West Bengal

Rainfall received over Gangetic West Bengal during 01 June to 04 October 2018 is 936.8 mm, which is 22% deficit. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and normal for week-2.

- Most of the timely sown and medium duration crops of aman rice are in dough stages. Since, there is no forecast of rainfall in next few days, apply irrigation as per the requirement.
- In the prevailing hot weather situation, attack of white fly has been reported in okra from many areas leading to the spread of yellow mosaic virus. Spray Difenthiuron @ 0.75g per litre of water to prevent the further spread of the disease.
- Start seed sowing of early variety of cabbage (e.g. Pride of India, Pusa early, Kranti etc.) & cauliflower (e.g. Jawharmoti, Bharat Jyoti, Early banaras etc.) @ 4gram / katha.

Jharkhand

Rainfall received over Jharkhand during 01 June to 04 October 2018 is 784.3 mm, which is 29% deficit. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and above normal for week-2.

- In some patches, pigeon pea crops are attacked by leaf roller insect. If the insect population is very low, then infected leaves may be destroyed either by burning or burrying in the soil. If the insect population is high, then spray insecticide Quinalphos @ 1 ml per litre of water.
- Spray Bioinsecticide Delphin @ 2 gram per litre of water to control white fly in cauliflower, cabbage and stem & fruit borer in brinjal. Farmers may raise the seedlings of winter vegetables like cauliflower, cabbage, chilli, tomato, brinjal etc. Seed should be treated with fungicide Bavistin before sowing.
- Farmers having assured irrigation facility may proceed for cultivation of potato and table peas. Recommended variety of potato are Kufri Ashoka, Kufri Pukhraj, Kufri Lalima, Kufri Pushkar and Kufri Kanchan.

Odisha

Rainfall received over Odisha during 01 June to 04 October 2018 is 1291.2 mm, which is 11% excess. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and above normal for week-2.

- It is optimum sowing time of mustard under rainfed condition. Grow high yielding varieties like Sushree, Parbhathi, Anuradha, TS-29 & M-27, farmers are advised to use 3 to 4 kg seeds/acre. Before sowing treat the seeds with 1.5 g Carbendazim.
- Farmers are advised to go for nursery raising of winter vegetables like cole crops such as cabbage and cauliflower for early planting

Rajasthan

Amount of rainfall received over East Rajasthan region is 635.4 mm (3% excess) and West Rajasthan is 201.7 mm (24% deficit) during 01 June to 04 October 2018. The extended range weather forecast provided for two weeks (05 to 11 and 12 to 18 October) for West and East Rajasthan is above normal for both the weeks.

- Farmers are advised to provide irrigation to vegetable & field crops as per requirement due to dry spell.
- Transplanting of mature seedlings of cauliflower, cabbage, broccoli and tomato may also be done in raised bed.
- Harvest the maize, sorghum, green gram and bajra wherever it has attained physiological maturity stage and vacate the field for sowing of rabi crops.
- Field sanitization should be done before sowing of rabi crop. Bunds, channels, uncultivated fields and field roads should be cleaned by removing weeds.

Gujarat

Amount of rainfall received over Gujarat region is 696.3 mm (24% deficit) and Saurashtra & Kutch is 316.0 mm (34% deficit) during 01 June to 04 October 2018. The extended range weather forecast provided for two weeks (05 to 11 and 12 to 18 October) for Gujarat region and Saurashtra & Kutch is above normal for both the weeks.

- Under limited irrigation water availability, micro irrigation systems (drip or sprinkler) should be used to irrigate the crop at critical growth stages.
- Mulching should be used to conserve soil moisture.

Assam

Rainfall received over Assam is 1331.6 mm (27% deficit) during 01 June to 04 October 2018. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for week-1 and normal for week-2.

- There may be attack of rice hispa in some pockets of rice field. The farmers are advised to Spray Quinolphos 25EC @2000 ml/ha as soon as 2 adults per hill is observed.
- Farmers are advised to collect the seeds of recommended varieties of potato from reliable sources. The recommended potato varieties are Kufri Chandramukhi, Kufri Jyoti, Kufri Megha, Kufri Sindhuri.
- In already sown crops of green gram and black gram, farmers should take measures to get rid of excess water from the fields. One weeding should be done at 20 days after sowing by khurpi or hoe. The crop should be thinned out simultaneously to maintain the required spacing within the rows.
- Farmers involved in the pond fish farming can go for supplementary feeding of Rice bran and mustard oil cake mixed at the ratio of 1:1. The feed mixture should be supply on feeding tray or in bags at different depth of water.

Punjab

Rainfall received over Punjab is 527.4 mm rainfall (7% excess) during 01 June to 04 October 2018. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is above normal for both the weeks.

- As dry weather is expected during coming days, farmers are advised to start harvesting of the rice crop.
- Farmers can start picking of cotton.
- To manage sheath blight of rice, spray 80g of Nativo or 320 ml Lusture using 200 litres of water per acre. Direct the spray towards the base of the plants. Repeat the spray after 15 days.
- Blast is becoming a major disease problem in basmati rice. Farmers are advised to monitor their crop regularly and on appearance of this disease, spray Amistar top 325SC @ 200 ml or Indofil-Z-78 @ 500g in 200 litre water per acre. If needed, the spray may be repeated after 15 days interval.
- Farmers can complete harvesting of maize crop during this period.

Himachal Pradesh

Himachal Pradesh has received 917.7 mm of rainfall during 01 June to 04 October 2018, which is 10% excess. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is above normal for both the weeks.

- Due to white fly and sucking pests, when yellowing of leaves or dark spots on fruits start appearing in vegetable crops, spray Imidacloprid 17.8 % SC@ 1.0 ml / 3 litre of water in clear weather.
- Use mulches for protection against soil erosion and for conserving soil moisture.

Uttrakhand

Uttrakhand has received 1195 mm of rainfall during 01 June to 04 October 2018, which is 4% deficit. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) is below normal for both the weeks.

- For sowing of onion nursery and leafy vegetables, seed treatment must be applied before sowing.
- Hoeing should be done in vegetable pea and cabbage at seedling stage. Farmers are advised to use biological agents such as trichoderma, pseudomonas, beauveria etc during hoeing to protect against disease on the plant.
- Application of Bordeaux mixture (10 grams / litre of water) in fruit bearing plants of lemon / Malta, guava crop is advised to keep them free from disease. Use of micro-nutrients for proper fruit growth is advised.
- Harvest mature fruits of walnut and store after proper Sun drying.
- If die back disease appear in citrus plant, apply copper oxychloride @0.2% and remove die back affected branches.

Jammu

Rainfall received during 01 June to 04 October 2018 over Jammu is 598.1 mm, which is 11% excess. The extended range weather forecast provided for next two weeks (05 to 11 and 12 to 18 October) over Jammu is above normal for both the weeks.

- Farmers are advised to manually rogue out yellow leaf plants (mosaic affected). Spray Imidacloprid @0.5% in pulse crop to check the population of white fly which is the major vector of disease.
- In moong picking of mature pods is recommended to avoid shattering loss.
- Spray dimethoate @ 1.5ml/litre against citrus psylla, leaf miner, white fly and lemon caterpillar.

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