Scattered precipitation occurred in state on 28th Nov. during the week. Maximum temperature was below normal and Minimum temperatures were below normal.

STATE RAINFALL FORECAST (FOR THE NEXT 72 HRS.)
(VALID TILL 08:30 IST of the next day)

<table>
<thead>
<tr>
<th>Date</th>
<th>Plains/Low Hills</th>
<th>Middle Hills</th>
<th>High Hills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
</tr>
<tr>
<td>04th Dec, 2019</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
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<tr>
<td>05th Dec, 2019</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
<td>Weather will be dry</td>
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</tbody>
</table>

Outlook for next 4 days (up to 0830 hrs. of 09th December, 2019)
Weather will be mainly dry over the state till 09th Dec.

Rainfall forecast for the next five day 04th Dec, to 08th Dec, 2019
Agriculture and Horticulture related Advisory:-

Fruit Crop:-

**Fruit Crop:** Temperate Fruits Stage: Dormancy, New planting

- Farmers are advised to do Strieification of the seeds of Apple, Peach, Walnut, Chuli, Brahmi, Peanukt etc before sowing in the plots.
- Start the uprooting of necessary of temperate which are to be planted during the winter seasons.
- For the new orchards farmers are advised to dig the pits and keep with open for 15-20 days and then fill them FYM mix soil.
- Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs.
- Apply grease to seal any cracks in the polythene sheets.
- If the stem borer problem is there in spray insecticide or control them with applying kerosene oil.
- Keep the basins of the plants free from weeds.
- Wrapping of plastic sheets around mango trunk should be done for preventing climbing of young mealy bugs.
- Apply grease to seal any cracks in the polythene sheets. Irrigation should be done in all orchards.
- The ensuing weather is conducive for the attack of leaf minor in Citrus.
- For its control, spray 10 ml Matasystox or Malathion 10 ml in 10 litre of water.
- For the control of Citrus canker spray Streptocycline Sulphate 500 ppm solution.
- Remove the shoots below the graft or bud unions.
- Prepare the pits for planting the winter plants like peacunnut, walnut, almond plum and peach.

Cereal crops:

**Ravi crops**

- Late sowing of wheat crop should be completed.
- Against fungal disease, seed treatment with 2.5 g bavistin or savin / Kg of seed should be done before sowing.
- For chemical weed control in wheat, spray isoproturon (75WP) @ 70 gm + 2,4D (80 WP) @ 50 gm or clodinafop @ 24 g (10WP) or 16 g (15 WP) per kanal after 35-40 days of sowing i.e. 2-3 leaf stage of weed.
- After 2-3 days of clodinafop spray, apply 2,4-D @ 50 gm/Kanal. Use 30 litres of water for making a solution for one hectare.
- Thinning and weeding is recommended in timely sown mustard crop.
- Monitoring mustard crop against attack of painted bug and aphid is advised.
Keeping in view of relative humidity farmers are advised for monitoring of mustard crop against attack of white rust.

If infection is high than spraying of Dithane-M-45 @ 2 gram/ litre of water is advised.

Keeping in view of weather, farmers are advised for monitoring of mustard crop against aphid attack.

**Vegetable:** :- Tomato, chilli, Brinjal,Onion, Cauliflower , Radish and turnip, Cabbage, Broccoli, palak and methi:

- Weeding and hoeing in all crops and vegetables should be done for optimum growth.
- For shoot and fruit borer in brinjal and tomato crops, infested fruits and shoots should be collected and buried inside the soil. Also install pheromone trap @25 per hectare If pest population is high, spraying of spinosad 48 EC @ 1 ml /4 litres of water is advised when sky is clear.
- In present weather conditions, rouging of viral infested crop should be done in chilli.
- Infected crop should be uprooted and buried in the soil.
- After rouging, spraying of Imidacloprid @ 0.3 ml per litre of water is advised to control the vector.
- It is time for planting of onion bulbs in 30X 10 cm spacing for harvesting green onion
- Transplant the onion nursery in the well prepared field so that the rain water may be used for irrigation
- The downy mildew is expected in cruciferous vegetables, for control spray redomil M-Z @ 25 g per litres of water at 15 days interval.
- In low hill areas of the State, transplant mid season cauliflower.
- Cabbage, Knol Khol, Broccoli and Chinese cabbage and direct sowing of radish, carrot, turnip, palak and methi can be done in mid hill areas of the State.
- Advised to complete transplanting of cauliflower.
- Nursery sowing of cauliflower (late group), cabbage, Knol Khol, Broccoli and Chinese cabbage
- It is time for planting of onion bulbs in 30X 10 cm spacing for harvesting green onion in October.
- Farmers are advised to monitor their fields regularly.
- Spray of Imidacloprid 17.8 % SC@ 1.0 ml / 3 lit of water is recommended against white flies and other sucking pests in all crop and vegetables when sky is clear.
- In vegetables (brinjal, cauliflower, cabbage, tomato etc), for monitoring of borer insect, farmers are advised to use pheromone trap @ 3-4/acre.
- For control spraying of Spinosad 1.0 ml/4 litre of water is advised against fruit borer, diamond back moth.
- Sowing of radish, carrot, turnip, palak and methi carrot,broccoli, lettuce can be completed in mid hill areas of the State.
- In mid hill region nursery sowing of Chinese cabbage.
- For the control of damping off disease in vegetable crop mix thoroughly Dithane M 45 dust 10-15 g in 1X3metre beds. Advised pea sowing.
- Seed should be treated with fungicides, Captan or Thiram @ 2.0 gm/kg and after that with crop-specific Rhizobium culture.
- A solution of jaggary and water after boiling should be allowed to cool down and then seeds along with Rhizobium should be thoroughly mixed.
- The mixture should be allowed to dry in a shade.
- It is highly recommended that the treated seeds should be sown after 24 hours of treatment.

**Potato:**

- Advised to complete potato sowing in lower& mid hill regions plain regions of H.P and procure good quality seed .
- Farmers are advised to start earthingup in potato if crop has attained a height of 15-22 cm.
If so required, the practice may be repeated after 15 days.

Due to high relative humidity, infection of blight may occur in potato and tomato.

Constant monitoring is advised.

If symptoms appears than spray of Carbandizam @ 1.0 gm / litre of water or Dithane-M-45 @ 2.0 gm / litre of water is recommended.

**Mushroom Cultivation:**

**Sowing:**

- Dingri can be sown in closed room, maintain temperature of 25-28 degree Celsius and relative humidity of 80-85 % for good crop.
- Advised to fill compost bags with span for button mushrooms.

**Tea:**

- Pruning training, skiffing and cleaning work can be completed in the tea.
- Do lopping of the tree in the tea orchards to have more sunlight.
- The skiffed material may be used to prepare compost so that it could be applied in next season.

**Floriculture:**

- **Aphids** It is optimum time for raising the nursery of winter flowers in polyhouses.
- For the control of blue beetle in roses and balsam, spray endosulphon @0.1% or cypermythrin @0.05%.
- Training and pruning as well as intercultural operations of rose should be done in present weather conditions.
- Apply Bavistin paste in the cut portion to protect the crop Weather is conducive for attack of mites in carnation, for control spray cypermythrin @ 0.05% in 15 days interval. against attack of fungal diseases.
- Rotting disease in marigold crop is monitored.
- If symptoms is found spraying of Bavistin @ 1 gram/litre or indofil-M45@ 2 ml/litre water is recommended.

**Poly House Agriculture:**

- Advised peas of improved varieties and transplanting of Methi, Palak and Brocoli Advised tomato, khira and capsicum sowing and transplanting.
- Keep yellow sticky trap in polyhouse and after transplanting drench plant with amidochloropid.
- Leaf spot/blight is expected in shimla mirch and tomato for control spray tilt 1ml per liters of water In polyhouse crops like tomato and shimla mirch, Powdery mildew is expected, for control spray haxaconazol 1ml per litres of water in 10 days interval.

**II. Livestock:**

**Animal Husbandary:**

- Temperature is falling and a cold wave has gripped the area, so protect the newly born calves and animals from cold.
Feed pregnant and lactating cows and buffalos with balance feed including mineral mixture.

For the control of ticks and mites in animals spray butox @2ml per litre on animals’ body /skin and @1-3 ml/l of water in cowsheds.

Also keep the cowshed clean and do not allow the water to stagnate in the cow shed.

For milch animals follow schedule of 1 kg feed+50g mineral mixtures per 2 litres of milk.

This schedule will maintain the reproductive ability of animals.

For control do the deworming of animals.

Dairy animals are deficient in minerals elements which are the sole reason of repeat breeding and other gynec related diseases in animals.

So ensure to give 50 g mineral mixture to animals daily.

Ensure cleanliness in cows having advanced pregnancy to avoid mastitis.

Protect the animals from cold as temperature is expected to fall in next week.

**Poultry:**

- Replace the poultry houses with fresh litter and keep the houses clean and ensure drinking water to the birds.
- Ensure proper space for egg laying of birds and provide 14-to 16 hours light including day light.
- Normal feeding schedule should be continued and add mineral in the diet if stress is seen
- Ensure proper ventilation in poultry houses.
- For new lot of layers chicks follow recommended schedule of vaccination for IBD and Ranikhet disease because weather is conducive for the spread of these disease.
- For precautionary measures spray formaline 40% @ 1 litre in 9 litres of water in outside or surrounding of farm

**Fisheries:**

- It is time to clear the stock.
- It is time to disinfect the fish tank by draining out the water and exposing the bottom floor of the tank to direct sunlight

**Apiculture:**

- The temperature has fallen and expected to fall further, so give the winter packing immediately to colonies.
- Check the colonies for nectar and Give artificial food to honey bees as there is scarcity of flowers during these days.
- And keep colonies in sun on clear day