

ग्रामोभ्युदयादेव देशोभ्युदयः

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Gramin Krishi Mausam Sewa Bulletin, District - Nainital

Year: 25 Issue No.: 67 Bulletin Period: 31 Dec 2016 - 04 Jan 2017 Day: Friday Dated: 30-12-2016

As per forecast received from National Centre for Medium Range Weather Forecast, India Meteorological Department, Mausam Bhawan, New Delhi and value added to the forecast by Meteorological Centre, Dehradun for next five days for Nainital district are as follows:

Parameter	Nainital				
	31/12/2016	01/01/2017	02/01/2017	03/01/2017	04/01/2017
Rainfall (mm)	0	3	6	0	0
Max Temp ($^{\circ}$ C)	15	13	12	14	15
Min Temp ($^{\circ}$ C)	05	04	03	03	02
Cloud Cover	P-Cloudy	Cloudy	Dense Cloud	Cloudy	P-Cloudy
Max RH I (%)	90	95	95	90	90
Min RH II (%)	45	55	55	50	45
Wind speed (km/h)	10	08	06	06	06
Wind direction	SE	SE	ESE	NNW	NW

According to the observations recorded at India Meteorological Department Observatory located at Nainital (Altitude: 2084 m) during last seven days (23-29 December, 2016), it is observed that state of sky were clear to dense cloudy and rainfall of 7.4 mm was received. Maximum and minimum temperature varied between 9.2° C to 22.2° C and 0.6° C to 8.6° C respectively.

Weather Based Agro-Advisories

Crop Management:

- To control the Painted bug of mustard crop, Dichlorvos 76EC @ 627 ml/Ha should be sprayed.
- On the occurrence of Mahu in the mustard crop, Thiamethoxam 25 WSG @ 50-100g/Ha should be sprayed and its waiting period is 21 days.
- On the occurrence of frost/fog, timely irrigation should be applied in the field.
- Immediately after or within 3 days of sowing of wheat and barley, spraying of 2.5-3.3 liter Pendimethalin 30 EC in 750 liter of water should be done. If spraying of Pendimethalin is not done earlier then, 400 g Clodinafop + Metsulfuron (westar) herbicide in 500 liter of water should be sprayed after 25-30 days of sowing to control the weed.
- For organic farming, seed should be treated with Trichoderma harzianum + Pseudomonas @ 5-5g/Kg of seed for all rabi crops. Requirement of nutrients in the field should be completed with vermicompost or dung manure or bio-fertilizer. To control the earthborn diseases, vermicompost

and dung manure should be treated with 25g Trichoderma +250g Pseudomonas biocontrol /Quintal and keep in the shed for 1 week and apply in the field before sowing.

- In Pulse crop, if labour are available then weeding should be done at the interval of 20-25 days and 35-40 days after sowing.
- To control the weed in lentil, pea, gram, 1.7 liter Fluchloralin or 1.5 liter Trifluralin in 750-800 liter of water should be sprayed before sowing the gram in irrigated condition.
- To save the nitrogen in pulse crops, farmers are advised that only those seeds are selected which are recommended for the area and it should be treated with Rhizobium culture after chemical treatment.

Horticultural Management:

- Soil treatment should be done with chemical like Formalin after clearing and digging the soil for sowing tomato, Capsicum and Cucumber.
- If Rai crop is sown in the polyhouses, it is advised that Rai leaves should be send to the market after cutting from time to time, and then irrigate the field.
- To control the late blight disease in potato, mixture of cymoxanil 8% + mancozeb 64% @ 2g/liter of water should be sprayed. Don't spray two continuous doses of these chemicals. Mancozeb @2.5g/liter (or Copper Oxichloride @3g/liter) should be sprayed in between two spray of chemicals.
- In mid hilly areas which are very much prone to the hail, immediate sowing of Arkel or other early variety of pea should be done.
- Deep ploughing of field should be done for sowing of potato in the month of March and contact to the Central Potato Institute, Shimla for arrangement of seeds of different variety of potato like Kufri Girdhari, Kufri Himalini or Kufri Shelja.
- In the irrigated valley, field should be selected for tomato, Capsicum and brinjal seedlings in the poly-house or poly-tunnel and soil treatment should also be done. Seed should be imported from authorized institute according to the climatic condition.
- To control the leaf spot disease in Cole crops, Mancozeb @ 2.5g/liter should be sprayed.
- In irrigated valley, hoeing should be done in Methi, Palak and Coriander after irrigation.
- In hilly areas, if Rai vegetable is transplanted earlier in the polyhouses then hoeing should be done after top dressing of Urea in proper moisture condition. If leaves are ready for cutting, then send them to the market after harvesting.
- Basin should be prepared in the temperate fruit plants and right quantity of dung manure, Nitrogen and Phosphorous should be applied in the field.
- To control the Canker disease in the apple, 0.3% Copper-oxichloride should be used after cutting and pruning. Unwanted and affected branches of apple should be removed through pruning and insecticide and fungicide should be sprayed.
- For transplanting of temperate fruit plants during winter season, it is advised that booking of seedlings of the fruit plants may be done for purchase only from registered nursery or University or Government nursery.
- To control the fruit Rot disease in apple and seed bearing fruits, soil should be removed from the surrounded area of stem in the affected fruit tree so that sun rays may enter directly in the stem of affected tree. Affected bark should be removed and chaubatia paste should be applied and covered with soil. Drenching of 0.3 % Copper-oxichloride/plant should also be done.
- In high hills, pruning of temperate fruit trees like apple, pear, peach, plum etc should be started.
- Layout and digging of pits should be started for the transplanting of apple and other seed bearing fruit seedlings in winter season.

Animal Husbandry:

- To save the animals from cold, proper arrangement of animal shed should be done. Vaccination should be given to the animals to save them from Rinderpest disease (Sheetla rog).
- To save the animal from cold, dry grasses, paddy residue (Puwal) etc which are not used as fodder for animals should be used as a bedding material for animals in sheds. Door and window should be covered properly so that cold wind could not be entered in the animal shed. Sitting place of animals should be leveled.
- To save the animal from cold, increase the amount of oil and Jaggery (Gur) in the food of animals. Caraway (Ajwain) and gur also be given to the animals.
- In hilly areas, heater may be used to protect the animals from cold. Rice husk should be given to the animals as a food which is the source of energy.
- Maintain the temperature of dwelling place of poultry birds.
- With the changing weather, there is a high chance of Niomonina in new born animals. So, it is advisable that animal shed should be protected from cold and hot food should be given to the animals.
- Keeping in mind the probable high rate of Cattle's delivery, animal shed should be well neat, clean, dry and ventilated. For this, dry Lime should be sprayed in the nearby places.
- Toxocara vitulorum (patera) are found in the food tube of buffalo calf in the age of 1-4month. More than 50% buffalo calf should be died because of delay in treatment. Piperazine should be given to the infected calf on identification of Patera disease.
- To save the buffalo calf from patera disease, 10-15Cc Neem oil should be given to the calf immediately after 10 days of his birth. Again after 10 days, 10-15 CC Neem oil should be given. Chenopodium album oil can also be given as a fodder to animals to save the calf/animals from patera disease.
- It is advised that green fodder can be given to the animals by mixing it in dry fodder otherwise animal may be infected by Timpeti disease which causes death of animals.
- There is a chance of Aflatoxicosis disease in Poultry due to occurrence of fungus in the food which causes to death of poultry birds. So, medicine should be administered to the poultry birds only on the advice of veterinarian.

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