



AGROMET ADVISORY BULLETIN

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76) Weather based Agromet Advisory committee meeting dated 20.12.2024

District: Nashik

Last Week Weather Summary (14.12.2024 to 20.12.2024)							Weather Parameters	Weather Forecast (21.12.2024 to 25.12.2024)				
14	15	16	17	18	19	20	Date	21	22	23	24	25
0.0	0.0	0.0	0.0	0.0	0.0	0.0	Rainfall (mm)	0	0	0	0	0
27.0	28.2	29.4	30.2	30.2	30.4	29.8	Max. Temp. (°C)	29	29	30	29	30
13.5	10.4	12.5	9.5	10.0	8.7	12.0	Min. Temp. (°C)	10	10	11	13	15
Clear	P Cloud	P Cloud	Clear	Clear	Clear	P Cloud	Cloud Cover	P Cloud	P Cloud	P Cloud	P Cloud	P Cloud
56	58	56	63	55	78	81	Max. RH (%)	85	84	85	86	85
20	19	18	18	24	27	28	Min. RH (%)	36	35	36	37	39
10.5	7.0	6.0	3.8	3.2	2.0	2.2	Wind Speed (km/hr)	2	4	4	2	4

Agromet Advisory Based on Weather Forecast Prediction

Crop	Stage	Advisory
Weather Summary		Considering the weather forecast there is possibility of dry & cold weather for next five days. The sky will be partial cloudy for next five days. Also Maximum Temperature staying in between 29-30 Degree Celsius, Minimum Temperature 10-15 Degree Celsius & the wind speed will remain between 2 - 4 kmph for the next five days.
General Advisory		<p><u>Cruciferous crops</u></p> <p><u>Aphids</u> The current cool and occasionally cloudy weather is favorable for aphid infestation. Green or black aphids suck the sap from young leaves. Due to this, the leaves become wrinkled, turn yellow and dry. Aphids excrete a sticky substance from their bodies. As this substance accumulates on the leaves, the leaves look sticky and oily. Then, black fungus grows on this substance. As a result, photosynthesis slows down. The growth of the plants is stunted and the production decreases.</p> <p><u>Management</u> If the aphid infestation reaches at economic threshold level, undertake the spraying of 5% neem extract <u>or</u> neem-based insecticide Azadirachtin (300 ppm) 5 ml per liter of water. This spray reduces the number of aphids and promotes friendly insects. Among biological insecticides, spray <u>Verticillium lecanii</u> <u>or</u> <u>Metarhizium anisoplii</u> @ 2 to 2.5 gm per liter of water. If necessary and biological control is not possible and the infestation exceeds the economic threshold level, spray with chemical insecticide Malathion (50 EC) @ 2 ml <u>or</u> Imidacloprid (17.8 SL) @ 0.4 ml per liter of water.</p>
SMS		Place the swab of turpentine on nostrils if nasal discharge is there but if discharge is greenish yellow in colour then immediately consult to the veterinarian. Drinking water should not too cold.
Rabi Sorghum	Boot stage	If the temperature goes below 15 degrees Celsius in the month of December, the amount of aphid pest increases, this leads to the spread of sticky disease. For that, undertake the spraying of Dimethoate (30 % EC) @500 ml per 500 liters of water. Give third irrigation according to availability of water and protect from birds.
Rabi Maize	Intercultural operation	Depending on the prevalence of weeds, one to two weeding should be done in the early stage of maize growth and one to two hoeing as needed.
Wheat	Vegetative to Tillering stage	Cloudy weather is conducive to shoot fly. In case of shoot fly infestation, sprays 5% neem extract <u>or</u> 25% quinalphos in 15 ml per 10 liters of water. Apply second spray as required. If more water is given, the field retains constant moisture and its helps to increase the incidence of the disease. Irrigate as per crop requirement. Chemical fertilizers should be applied as recommended. Excessive use of urea fertilizer may increase the incidence of rust. As soon as rust appears on the crop, spray Mancozeb fungicide mixed with 25 g in 10 liters of water. Apply second spray 15 days after spray as required. As soon as aphids and jassids appear, <u>Metarhizium anisopli</u> should be mixed in 50 g per 10 liters of water and sprayed in the evening. <u>Or</u> spray Thiamethoxam (25WG) 1 g <u>or</u> Acetamiprid 20 (SP) 5 g per 10 liters of water. Apply second spray 10 to 15 days after spray as required.



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Irrigated Chick pea	Vegetative stage	The first Hoeing is done 20 days after sowing and the second Hoeing is done 30 days after sowing. After hoeing, weeding to remove weeds from two plants.
Rainfed Chick pea	Branching to flowering stage	Install 5pheromone traps per ha at a distance of 50 m for monitoring of gram pod borer and change lures at 15 days interval. Spray the crop with 5% NSKE for the management of pod borer as soon as incidence noticed. In the cloudy weather, the incidence of pod borer larvae has observed in rainfed chickpea. The spraying of HaNPV @ 10 ml per 10 liter should be carried out.
Grapes		<u>Pink berries</u> If the daytime temperature rises to 35 degrees Celsius and the night temperature drops to 7 to 8 degrees Celsius, the temperature difference causes the green pigments in green grape varieties to convert into pink pigments. Such a temperature difference can turn the entire bunch in the garden pink in one night. The more part of the grapes comes close to the minimum temperature, the more the berries appear pink. The color of the berries in the same grape bunch varies. For the purpose of eating grapes, the general consumer prefers the same color (green, red or black). No solution seems to be available or working for this till date, nor has any chemical been observed to turn pink berries to green berries. However, to reduce the gap between the minimum and maximum temperatures, covering each grape bunch with paper eight to ten days before the water falls or before reaching at least 7 to 8 degrees Celsius can be of some benefit. Before covering the bunch with paper, fungicides and insecticides should be sprayed as recommended for the control of powdery mildew and mealybug.
Pomegranate		<u>Mrig Bahar (Garden Stage - Dormant): Nutrient Management</u> After harvesting the previous bahar fruits, apply 20-25 kg of FYM or 13-15 kg of FYM + 2 kg of vermicompost + 2 kg of neem cake or 7.5 kg of poultry manure + 2 kg of neem cake per tree. Apply chemical fertilizer at the rate of 205 gm nitrogen (446 gm urea), 50 gm phosphorus (315 gm single super phosphate), 152 gm potassium (254 gm muriate of potash) per tree and irrigate lightly. Apply a mixture of organic formulations three to four weeks after applying chemical fertilizers. Mix 1 kg of Azospirillum spp or Aspergillus niger or Trichoderma viridi and 3 kg of Penicillium pinophyllum per acre in 2 to 5 quintals of well compost FYM in a ratio of 1:25 and prepare beds of this mixture in different places in the shade, sprinkle lightly with water and keep it at 60 to 70 percent moisture for 15 days. Keep turning it every two days. Before using this mixture in the field, mix it with a biological formulation of Arbuscular Mycorrhiza Fungus at the rate of 1 kg per acre. This mixture should be given to 300 trees or one acre of area in the garden.
Mango		<u>Mango inflorescence Management</u> It is necessary to identify male and bisexual flowers in mango blossoms. Due to extreme cold, the number of male flowers increases and the number of bisexual flowers decreases. Also, pollinating insects are found in less quantity due to cold. Due to this, mango blossoms are seen drying up without pollination. To increase pollination in mango blossoms, move your hand over the blossom near your hand, for blossoms on high branches, tie a broom to a bamboo stick and rotate it. To attract insects in the mango garden, soak dried fish in water and hang it. For this, choose low-quality bangla fish. To protect the fish from birds, remove the bottom of an empty bottle, put a wire through the bottle and hang the fish in some part. The smell of this hanging fish should be spread, so the bottle should be made airy. Due to this, pollinating insects, especially flies, are attracted and pollination is observed in the mango.
Onion		After transplanting of Rabi season onion crop, regular weeding should be done at an interval of 15 to 20 days. Top dressing should be applied 30 and 45 days after planting.
Tomato		<u>Staking and soil reinforcement for trees</u> After 30 to 35 days after planting, when the growth of the trees is strong, the branches and shoots spread out vigorously. For this, they should be supported with bamboo, twine and wire. Wooden bamboos of 6 to 9 feet in height should be planted in the ground on the side of the furrows. At a height of 1 meter from the ground, pull the wire on both the poles and tie it tightly and support it with bamboo in the middle. After the height of the tree is 30 cm., tie a loose twine to the trunk of the tree and tie it to the wire. Then, as the tree grows new branches, each branch should be tied to the wire with twine. Within 30 to 45 days after planting, the trees should be given soil reinforcement. For this, half of the furrows in front of the tree should be broken and soil should be applied to the side of the tree, this provides support to the trunk of the tree and helps in rooting. It helps in maintaining the right amount of air in the soil. While adding soil, take care that the tree is not buried too much in the soil.



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Animal Husbandry (Cow, Goat etc)		<u>Cowshed Management in Winter</u> Proper shelter to protect against wind and cold, proper arrangement of pregnant cows and buffaloes, comfortable and warm seating facilities, and as dry an environment as possible should be maintained. The cowshed should be well ventilated. Sufficient natural light and heat help prevent the spread of diseases. The surface of the cowshed should not be slippery and should be easy to clean. The cowshed should be closed with a shade net or a gunny bag at night. This will help prevent cold winds. The bulbs in the cowshed should be turned on at night. This will help control the temperature. Arrangements should be made to help sick animals eat enough fodder. The sitting area should be dry, which protects the cows from moisture and cold. The drier the sitting area, the warmer the ground remains. This protects the animals from cold. It is important to keep the air circulating in the cowshed during the day. Ensure that the humidity and ammonia in the cowshed are removed.
Goat		<u>Management of goats in December</u> Breeding bucks should be kept separate from goats. A separate arrangement should be made in the cowshed for the weaning goats. Monitor the diet and health of pregnant animals.
Sheep		<u>Management of sheep in December</u> Protect the herd from cold air. Newborn lambs and sheep should be protected from cold. Body weight of lambs should be recorded. 400 grams of fodder should be fed to pregnant sheep and lambs.
Poultry	Health Management	<u>Management in the shed during winter</u> To protect the chickens from extreme cold, clean and dry curtains should be installed along the length of the shed. The curtains should be easily opened. The curtains should be closed at night and in the morning when the air is cold. The curtains should be opened in the afternoon when there is a little heat. It is very important to have proper ventilation and air circulation in the shed. For this, the curtains should be opened from top to bottom whenever possible. By doing so, the polluted air containing carbon dioxide is quickly thrown out. If such polluted air is not thrown out and the chickens do not have access to oxygenated (clean) air, they suffer from hypoxia (lack of oxygen). Metabolic diseases like ascites occur, and mortality increases. The amount of ascites starts to increase from about the third week after the chickens arrive in the shed. If the planning of opening the curtains attached to the shed is not done properly, the ammonia produced in the shed is not thrown out, due to which the amount of ammonia in the shed increases and the chickens suffer from respiratory diseases and eye problems. This leads to reduced food intake, weight loss, and increased medication costs. Therefore, planning the curtains installed in the shed during winter is very important.

Source:

- 1) Weather Forecast : Research Section, Mumbai
- 2) Last week weather summary : GKMS Observatory, ZARS, Igatpuri, Dist. Nashik.

Place : ZARS, Igatpuri
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