

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/09/2018)

I. Weather Data for the Prevailing Week

Thursday (03/01/2019) -- Thursday (10/01/2019)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nashik	12-13	29-31	No Rain	Clear	03-19	17-20	49-59
Pune	14-15	31-32	No Rain	Clear	00-11	15-22	40-51
Solapur	15-17	31-32	No Rain	Clear	03-16	18-22	49-55
Sangli	14-16	31-32	No Rain	Clear	01-12	20-26	54-59
Bijapur	15-17	31-32	No Rain	Clear	04-14	16-25	59-70
Hyderabad	14-16	29-31	No Rain	Clear	02-10	22-34	75-97

Note: Above weather information is summary of weather forecasting given in following websites
<http://www.imd.gov.in/>, <http://wxmaps.org/pix/prec6.html>, <http://www.fallingrain.com/world/IN/>,
<http://www.wunderground.com/>, <http://www.bbcweather.com-weather/1269750>, etc..

II. a) Days after pruning: 108 days

b) Expected growth stage of the crop: - Veraison stage after October pruning

III. Water management (Dr. A.K. Upadhyay)

Expected pan evaporation: 3.5 to 5 mm

Amount of irrigation advised:

1. From Berry development stage onwards till maturity, apply irrigation through drip @ 6,000- 7,600 L/ acre/ day for Nasik region and from 7,600 – 8,500 for Pune, Sangli, Solapur, Hyderabad and Bijapur region. Further, in case vigour is more than desired, then reduce irrigation water application to 3,500 – 5,000L/ acre. Remember that if the soil is at field capacity (wapsa) then donot irrigate.
2. Practice mulching to keep the bunds moistened. This will reduce the salinity build up in the root zone due to evaporation of the moisture from the surface of the bund.

IV. Soil and Nutrient requirement (Dr. A.K. Upadhyay)

Berry Development stage:

1. After Berry setting, continue initially with Phosphoric acid application @ 5 kg in two splits this week till 8 mm berry size.
2. If the berry size is from 2-4mm, spray calcium @ 2g Calcium Chloride or 0.5 g Ca chelate or 0.75g Calcium Essence per litre. Target sprays immediately after GA application (preferably next day) for better absorption.
3. If the berry size is from 5-8mm, spray calcium & 2g Calcium Chloride or 0.5 g Ca chelate or 0.75g Calcium Essence per litre. Target sprays immediately after GA application (preferably next day) for better absorption.

4. In the calcareous soil, spray magnesium sulphate @ 3g/L on the vines followed by fertigation of magnesium sulphate @ 10kg/acre from setting till 6-8 mm berry stage.
5. After 8-10 mm berry size, start application of nitrogen in the form of ammonium sulphate @ 25kg /acre in 4 splits in calcareous soil and as urea @ 15 kg/acre in other soils in 3 splits. Follow this up with Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks.

Ripening to Harvest stage:

1. Apply Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks. Follow this up with Magnesium sulphate @ 10 kg/acre in two splits. Spray Magnesium sulphate in calcareous soil.

V. Requirement of growth regulators (Dr. S.D. Ramteke)

- At this stage bunches should be covered with paper to avoid pink berry formation.
- Give irrigation on daily basis at field capacity.
- Do not use so many PGR's at a time.

VI. Canopy management (Dr. R.G. Somkuwar)

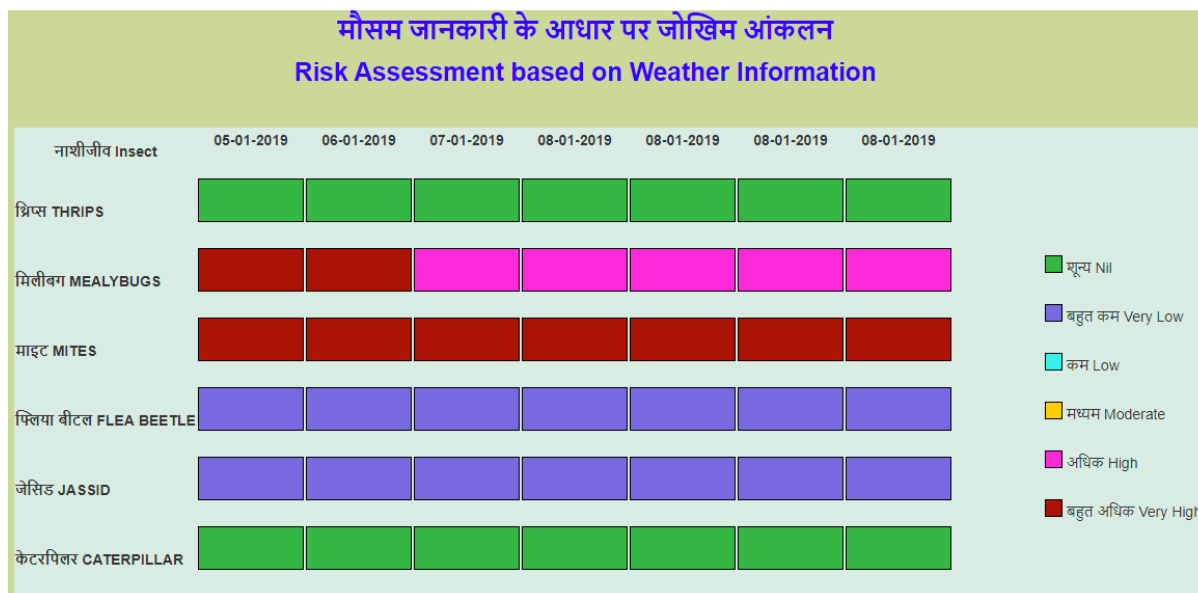
Nil.

VII. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
108	Low	Moderate	Nil	Nil

In case of powdery mildew management, application of sulphur 80WP@2g/L or *Ampelomyces quisqualis* @6-8g/L(where there is low temperature) at this stage will also be beneficial. As temperature is low in Nashik region application of *Ampelomyces quisqualis* is preferred. Berry cracking and Ukdaya is a problem which is associated with untimely rainfall, excess irrigation as well as variation in diurnal temperature. Application of potash/potassium will be beneficial at this stage in the form of potassium-bi-carbonate. If potassium salts of phosphoric acid had been applied earlier, it will be beneficial at this stage. Application of formulations of silicon(silicic acid) will also give resistance to diseases as well as increase the shelf life of the berries. To elevate the temperature in vines so as to avoid frost injury bonfires may be organized with utmost care so as not to damage the vines.1-2 applications of chitosan@2g/L will help in avoiding berry cracking.

VII. Insect and Mite management. (Dr. D.S. Yadav)



- Entomogenous fungus such as *Metarhizium*, *Beauveria* and *Lecanicillium* can be used for plant wash at 15 days interval to reduce mealybug populations. If, insecticide application seems inevitable, the only buprofezin 25 SC @ 1.25 ml/L water (PHI 45 days) may be used for management of mealybugs as this insecticide does not harm beneficial organisms in the vineyard.
- Sulphur 80 WDG @ 1.5-2.0 g/L water may be applied if mite infestation is observed.

Crop advisory relevant to different places is prepared by experts, considering forecasted weather, crop growth stages in majority of vineyards and ground information on incidence of different conditions in different grape growing areas received from regular interaction with progressive grape growers. No claims are made on its correctness.

Usefulness of this information may be communicated to us at director.nrcg@icar.gov.in.