

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/10/2017)

I. Weather Data for the Prevailing Week

Thursday (14/12/2017) - Thursday (21/12/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	15-18	28-29	Nashik, Ojhar, Palkhed, Dindori, Vani , Pimpalgaon Kalwan, Devla, Baswant, Satana, Shirdi, Loni Niphad – No Rain	Partly Cloudy	00-19	21-38	41-82
Pune	16-20	27-31	Pune, Phursungi Narayangaon, Junnar Loni Kalbhor, Patas, Supa, Baramati Uruli Kanchan, Yavat – No Rain	Partly Cloudy	00-22	23-35	35-80
Solapur	17-21	30-32	Solapur, Nanaj, Kati Vairag, Osmanabad, Tuljapur Latur, Ausa, Kasegaon, Pandharpur, Atpadi Pangri, Barshi – No Rain	Partly Cloudy	04-22	16-35	38-71
Sangli	18-21	30-32	Sangli, Miraj, Shirguppi, Kagvad, Palsi, , Vite Arag Shetfal Kavatha Mahankal, Palus, Valva, Tasgaon Khanapur- No Rain	Partly Cloudy	00-24	19-36	35-80
Bijapur	17-21	30-31	Bijapur Tikota, Telsang Chadchan - No Rain	Partly Cloudy	03-25	21-33	59-77
Hyderabad	15-17	28-30	Hyderabad Medchal, Zahirabad - No Rain	Partly Cloudy	08-16	26-45	57- 100

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: 60 days

b) Expected growth stage of the crop: - Berry setting stage

III. Nutrition and irrigation management (Dr. A.K. Upadhyay)

Expected pan evaporation: 3 to 5 mm

Amount of irrigation advised

Amount of irrigation advised: During shoot growth stage, apply irrigation through drip @ 5,100- 8,500 L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 2,500 – 4,000 L/ acre. Still if you are not able to control the vigour, stop irrigation till such time growth is controlled.

1. During Flowering to setting stage, apply irrigation through drip @ 1,700 to 2,800L/ acre/ day.

2. During Berry development stage, apply irrigation through drip @ 5,100- 8,500 L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 2,500 – 4,000L/ acre. Still if you are not able to control the vigour, stop irrigation till such time growth is controlled.
3. Remember that if the soil at field capacity (wapsa) then do not irrigate.

Soil and Nutrient management

Nov. pruned vineyards

Shoot growth stage:

1. Do not apply any nitrogen based fertilizer just before Flowering to Setting stage to avoid problems of kooj (inflorescence necrosis). Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of kooj (inflorescence necrosis).
2. If SOP not applied, then apply 15 kg SOP in case low temperature forecasted during flowering stage.

Flowering to setting stage:

1. Apply 4-5 kg Phosphoric acid in two to three splits this week.
2. Go for Petiole sampling at Full bloom stage

Oct. pruned vineyards

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 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 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.

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

1. Use of well-known of sea weed extracts must be applied on vines as a foliar spray. These chemicals not only increase the berry size but also helps to keep the leaves healthy.
2. Drippers must be at 1 feet height which may help to avoid a disorder like Ukadya.

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

1. Old vineyard:

The drop in minimum temperature in the vineyards will hamper the berry growth. To avoid this, sufficient irrigation and mulching may be followed. Under the situation of sudden drop in the minimum temperature, burning the fire in different places in the vineyard will also help to increase the temperature. Covering bunches with paper will help to reduce the incidence of pink berry. Powdery mildew incidence in the vineyard under dense canopy is also seen in majority of the vineyards. Hence, priority of maintaining open canopy should be given in the vineyard.

2. Grafted vines:

Due to reduction in minimum temperature the vegetative growth of grafted shoots will be slow. Application of potassic fertilizers (0:0:50 @ 3 to 4g/litre water depending on the shoot growth) through 2-3 spray on the grafted plants during this time will help to advance the cane maturity. Shoot pinching should also be done so as to arrest the vegetative growth and initiate the cane maturity.

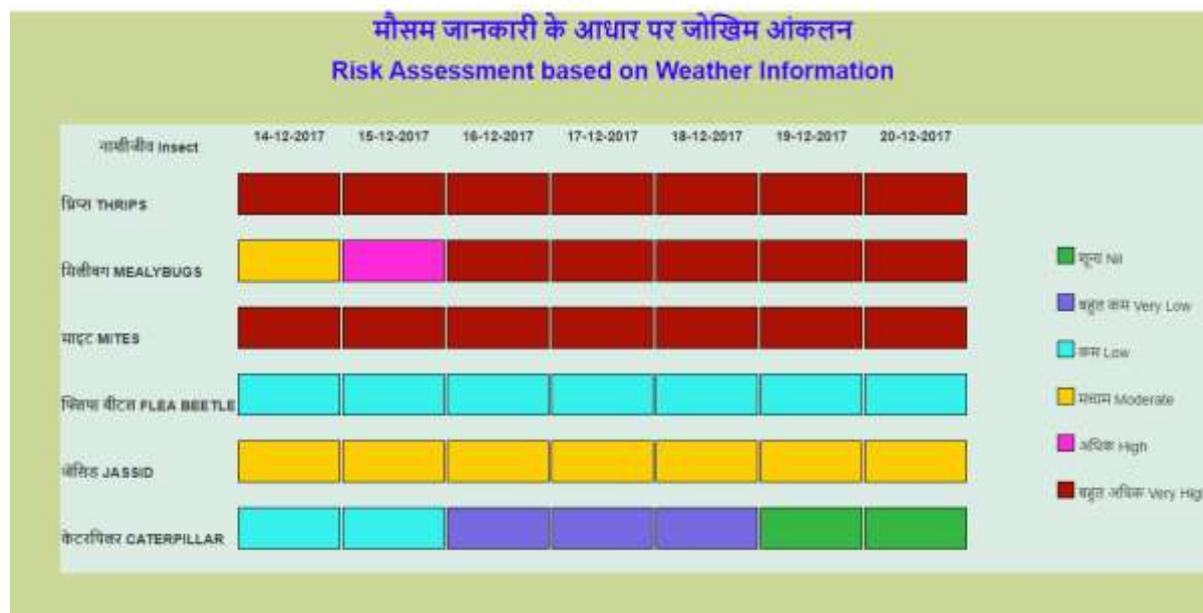
VI. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

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

The weather will be cloudy in Nashik and adjoining areas on Sat/Sun. With less humidity and drop in temperature, there will be an increase in powdery mildew incidence. For powdery mildew management, at post- berry setting stage application of sulphur@ 2-3g/L should be done for powdery mildew control. Care should be taken that there are no spots on the berry due to sulphur application. Application of BCA i.e. soil drench and foliar spray of *Trichoderma* sp and/or *Bacillus* sp and foliar spray of *Ampelomyces quisqualis* may be continued. However, they will work better if applied along with sulphur rather than triazoles and SDHI fungicides. At the pre-flowering stages, application of systemic fungicides viz. Tetraconazole @ 0.75 ml /L or Fluopyram 200+Tebuconazole 200SC @0.5ml/L or Hexaconazole @1ml/L or Metrafenone 50% SC @0.25ml/L or any other fungicides as per annexure 5, should be done. Application of potash/mono-potassium phosphate/ calcium chloride or sulphate also indirectly controls the disease.

Exporters are requested to adhere to the chemicals as given in Annexure 5 of NRL, ICAR-NRCC

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



- Vineyards may have higher thrips infestation. Monitoring for thrips should be done by tapping the shoots on white paper and counting number. The monitoring of thrips should be done during afternoon hours and the monitoring for jassids should be done during 6-7 pm in the evening.
- Emamectin benzoate 5 SG @ 0.22 g/L water is effective to manage thrips, jassid and caterpillars.
- Buprofezin 25 SC @ 1.25 ml/L water is effective for management of mealybugs.
- Mite population may start building up in the vineyards, therefore, careful monitoring is essential. Sulphur 80WDG @ 2.0 g/L water is effective against mites.

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.