

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/10/2016)

I. Weather Data for the Prevailing Week

Thursday 05/01/2017) - Thursday (12/01/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	13-14	26-29	No Rain Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear-Partly cloudy	00-16	22-42	48-100
Pune	15-17	28-31	No Rain Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	00-18	15-29	42-89
Solapur *	17-19	31-32	No Rain Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear	02-13	14-23	36-77
Sangli *	16-18	30-32	No Rain Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad, Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear	00-16	16-24	45-89
Bijapur *	17-19	31-32	No Rain Bijapur, Tikota, Telsang, Chadchan	Clear	02-18	15-22	46-73
Hyderabad *	14-18	29-31	No Rain Hyderabad, Medchal, Rainlaguda. Zahirabad	Clear	03-13	19-32	47-88

* Tropical storm conditions possible

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 to 90 days

b) **Expected growth stage of the crop:** - Berry growth to veraison

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

Expected pan evaporation: 3 to 4.5 mm

Amount of irrigation advised

For October pruned vineyards, during Berry growth stage, apply irrigation through drip @ 5,100 to 7,650 L/ acre/ day.

In late pruned vineyards (Nov., 2016), during Flowering to setting stage, apply irrigation through drip @ 1,700 to 2,520 L/ acre/ day. After berry setting, apply irrigation through drip @ 5,100 to 7,650 L/ acre/ day.

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

October pruned vineyard

Berry development stage: 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. If the soil has high calcium carbonate content, apply 5 kg Zinc sulphate along with 5 kg Ferrous sulphate in two splits.

November pruned vineyard

1. Flowering to setting stage: Apply 5 kg Phosphoric acid in two splits this week. During flowering stage, petiole testing should be carried out.
2. After Berry setting, continue initially with Phosphoric acid application @ 7.5 kg in 2-3 splits this week. Apply Magnesium sulphate @ 10 kg/acre in two splits. Spray Calcium @ 2g Calcium Chloride or 0.5 g Ca chelate per litre at berry size of 2-4 mm and 6-8 mm.

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

Too much use of GA and CPPU may be avoided..

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

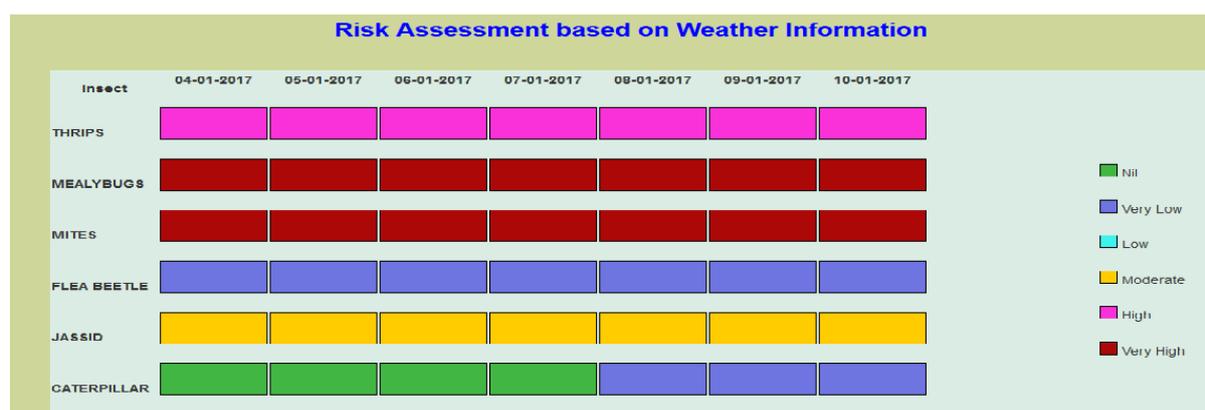
1. **Establishment of new vineyard:** The opened trench should be exposed to the sun for at least 12-15 days. This will help to sterilize the soil to some extent. Closing the trench after adding well rotten farm yard manure and single super phosphate to be done.
2. **Grafted vines:** The re-cut of grafted vines will be taken when the minimum temperature starts rising above 15⁰C. As per the weather report, the minimum temperature during this week will be above 13⁰C. However, the cold waves immediately after the grafting will delay the bud sprouts. Hence, the re-cut may be delayed by a week. The pre-re-cut practices can be completed. Approximately 6-8 leaf removal from graft joint can be done. Removal of sutali from grafted shoot (2- buds above the graft joint) and allowing bending towards the soil. This will help for proper bud swelling and accumulation of stored food material in the bud. Opening of light trench (3 to 4 inch deep and 2 feet width leaving 8 to 9 inch from the trunk) 15 days before re-cut may be done. Application of well rotten FYM @ 10 kg/grafted/vine along with ferrous sulphate @ 15-20g/vine and single super phosphate @ 200- 250g/vine) will help for proper root and shoot growth.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
74 -80	Nil	Low – medium	Nil	Nil

As the temperature is on the rising trend, the probability of powdery mildew incidence might increase. For powdery mildew management, myclobutanil@ 0.4g/L or tetraconazole @ 0.75 ml /L should be applied (detections of residues possible). Application of sulphur 80WP@2g/L is advised to avoid residue detections. Use of biocontrol agents like *Bacillus* sp/*Trichoderma* sp/*Ampelomyces* sp may be continued.

VIII. Insect and Mite management. (Dr. D.S. Yadav and Dr. B.B Fand)



A. Pest risks:

- Very high risks of infestation of mealybugs and mites
- High risk of infestation of thrips
- Moderate risk of jassids

B. Management measures:

- **Use of insecticides with low PHI should be preferred to avoid residue problems**
- The egg laying by mealybugs is expected. Hence, close monitoring is required for the presence of mealybug egg masses and movement of crawlers on stems and cordons, especially below the loose bark.
- Loose bark on stems and cordons should necessarily be removed for making the effective contact of insecticide with the insects
- Spray application of neem based products (Azadirachtin) @ 3 ml/litre of water will be helpful for controlling sucking pests: mealybugs, mites, jassids and thrips
- Plant wash with buprofezin @ 1.25 ml/lit (water volume 1.5 lit/vine) will help to control mealybugs. Please consider the PHI of insecticide before use.
- Sulphur 80 WDG @ 2 g/lit for controlling mites. If heavy infestation of mites is seen, give jet spray of water @ 2500 litres/ha before spraying of miticides, which will help to remove the mite webbings and improve the efficacy of miticide sprayed
- Emamectin benzoate 5 SG @ 0.22 g/lit against thrips
- Lambda cyhalothrin 5 EC @ 0.5 ml/lit will be helpful against jassids

Recommended insecticides with their MRLs and PHIs

(Source: Annexure 5, NRL, ICAR-NRCG, Pune)

S. No.	Insecticide	EU MRL(mg/kg)	PHI (days)
1.	Lambda cyhalothrin 05 CS	0.2	30
2.	Emamectin benzoate 05 SG	0.05	25
3.	Buprofezin 25 SC	1	40

*Avoid use of imidacloprid at flowering period and after 50 days of fruit pruning.

**Fipronil should be used only once in a fruiting season and should be avoided after flowering period

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.