

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 02/02/2017) - Thursday (09/02/2017)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	15-21	30-33	No Rain Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear	02-16	18-28	42-55
Pune	18-22	32-33	No Rain Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	00-21	16-25	42-49
Solapur *	22-24	34-35	No Rain Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear	00-26	17-21	40-56
Sangli *	20-23	33-34	No Rain Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad, Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear	02-24	18-21	45-58
Bijapur *	21-23	32-34	No Rain Bijapur, Tikota, Telsang, Chadchan	Clear	02-26	17-22	44-63
Hyderabad *	17-19	31-33	No Rain Hyderabad, Medchal, Rainlaguda. Zahirabad	Clear	06-21	23-27	61-66

* 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: 112 days

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

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

Expected pan evaporation: 3.5 to 7 mm

Amount of irrigation advised

For October pruned vineyards, during ripening to harvest stage, apply irrigation through drip @ 5,950 to 8,500 L/acre/day for Nasik, Pune and Hyderabad locations and from 7650 to 11,900 L/ acre/ day for Solapur, Sangli and Bijapur locations.

In late pruned vineyards (Nov., 2016), during berry development stage, apply irrigation through drip @ 5,950 to 8,500 L/acre/day for Nasik, Pune and Hyderabad locations and from 7650 to 11,900 L/ acre/ day for Solapur, Sangli and Bijapur locations.

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

October pruned vineyard

Ripening to Harvest stage: Apply Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks. Total potassium application (SOP) should be approx. 60 kg/acre during this stage. Follow this up with Magnesium sulphate @ 10 kg/acre in two splits. Spray Magnesium sulphate in calcareous soil. In case of high yielding vineyards, continue application of Magnesium sulphate @ 25 kg/acre in 3-4 splits.

November pruned vineyard

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.

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

At this stage efforts should be made to increase sugar content of berries in colored grapes and the following steps are recommended

1. Avoid over-crowding of shoots and remove the yellow leaves.
2. Use optimum water after berry softening.
3. Do not allow the clusters on weak shoots.
4. Do not use CPPU or any other bio stimulants for increasing the berry size in clusters borne on shoots with inadequate leaf area.

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

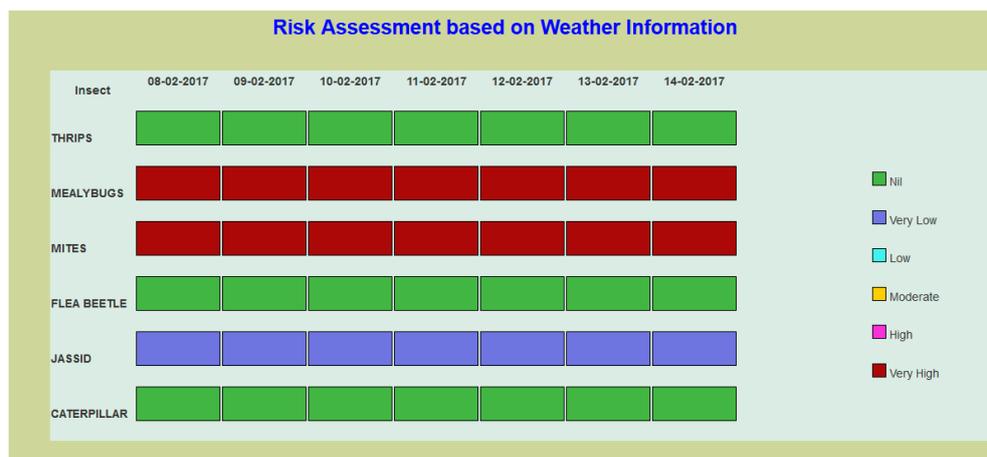
1. **Recut of grafted vines:** During this week, the minimum temperature is expected to be in the range of 15 to 24°C while the maximum temperature will be in the range of 30 to 35°C in different grape growing regions. During the coming week, we may not experience the reduction in minimum temperature in all these regions. Hence, re-cut of the grafted vines should be given top priority.
2. **Old vineyard:** Since the temperature is increasing, the mummification or bunch drying will be more visible. This is mainly due to the gap between requirement and supply of irrigation water. Hence, under such condition, the irrigation management needs to be followed properly.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
109-115	Nil	Very low	Nil	Nil

Reduction in humidity along with rise in temperature will make the berries susceptible to sunburn. So paper wrapping the berries or covering with shade net should be done.

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

B. Management measures:

- Close monitoring is required for the presence of mealybug egg masses, appearance of honeydew on bunches, movement of crawlers and ants 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) will be helpful for controlling both mealybugs and mites
- The **spot treatment** is advisable to control localised infestations of mealybugs instead of blanket spraying over entire area. This will also reduce the labour and insecticide cost **besides minimization of the risk for residue**
- **Consider the MRL and PHI of insecticides before use** (Annexure 5 of NRL, ICAR-NRCG, Pune)
- Post-insecticide treatment washing of infested bunches with surfactants to get rid of dead mealybugs and honeydew secretions

*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.