

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	16-18	30-33	No Rain Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear	00-13	19-35	36-84
Pune	19-20	32-34	No Rain Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	00-18	19-27	40-72
Solapur *	22-23	34-35	No Rain Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear	00-18	16-23	41-53
Sangli *	20-21	33-34	No Rain Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad, Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear	02-14	17-24	50-67
Bijapur *	21-22	33-34	No Rain Bijapur, Tikota, Telsang, Chadchan	Clear	02-19	17-24	33-57
Hyderabad *	18-19	32-34	No Rain Hyderabad, Medchal, Rainlaguda. Zahirabad	Clear	03-14	21-30	50-86

* 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: 105 days

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

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

Expected pan evaporation: 4 to 7 mm

Amount of irrigation advised

For October pruned vineyards, during ripening to harvest stage, apply irrigation through drip @ 6,800 to 11,900 L/ acre/ day.

In late pruned vineyards (Nov., 2016), during berry development stage, apply irrigation through drip @ 6,800 to 11,900 L/ acre/ day.

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

October pruned vineyard

1. 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.

November pruned vineyard

1. During berry development stage, 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. Follow this up with Magnesium sulphate spray in calcareous soil.
2. 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.

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

Among the table grape varieties grown in Maharashtra, Flame Seedless, Fantasy Seedless and Thompson Seedless are considered moderately sensitive to cracking. Cultural practices which are the probable reasons for increased cracking were dilute sprays after color break, drippers above 2 feet height and late irrigations or flooding, if they coincided with a sudden cool period which resulted in moisture on the berry surface.

To avoid berry cracking following measures may be undertaken

1. Do not give flood irrigation after veraison stage
2. Drippers must be kept at 1 feet height
3. Do not spray any chemicals unnecessarily
4. Do not put open mulch
5. Maintain the optimum canopy

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 16 to 23°C and maximum temperature between 30 to 34°C. This condition is an ideal condition for taking re-cut to the grafted vines since the vine will be in active physiological state. Hence, the re-cut to the grafted vines can be started in this week. However, in the region where the minimum temperature is still lower than 15°C, under such condition, the re-cut of grafted vines should be delayed for a week. This will avoid irregular bud sprouts.

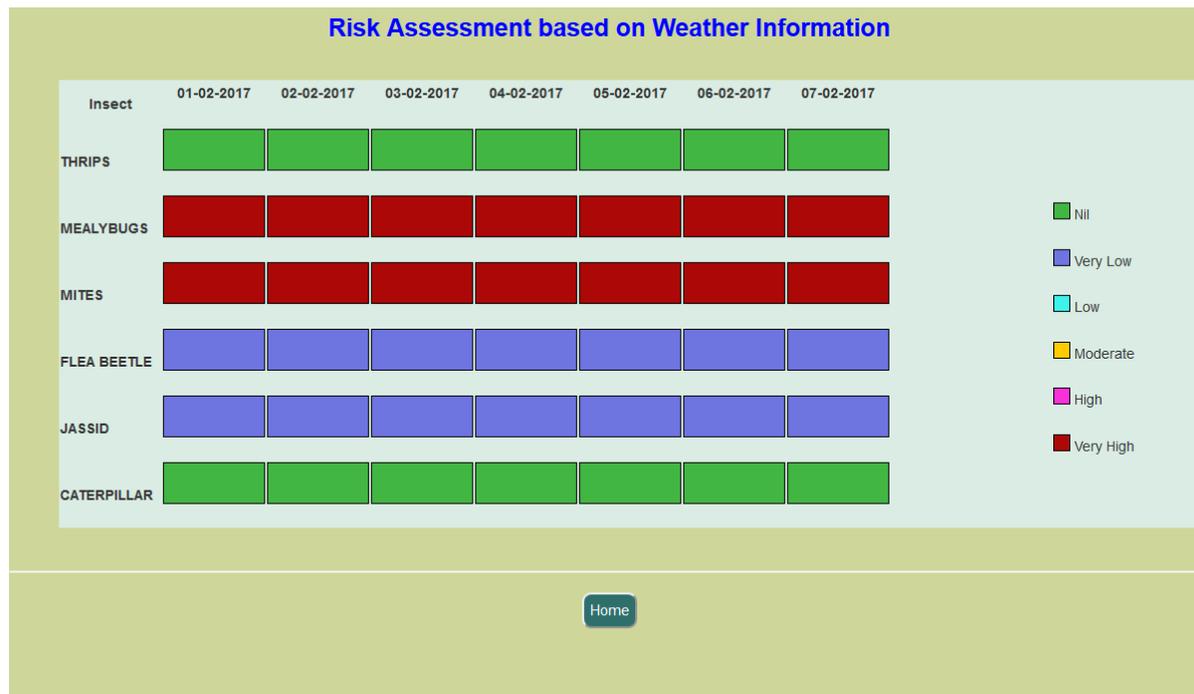
2. **Establishment of new vineyard:** The planting of grape rootstock can also be taken up during this week since the temperature available is favourable for root growth. After planting the rootstock, under the condition of light soil, everyday irrigation is recommended while in the black cotton or heavy soil alternate day irrigation will be sufficient.
3. **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 meticulously.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
102-108	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. The incidence of powdery mildew could be very low. However, to aid powdery mildew control (if there is any) as well as bioremediation spraying should be done with *Bacillus subtilis*@ 3-4g/L prior to paper wrapping the berries.

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**
- Plant wash with buprofezin @ 1.25 ml/lit (water volume 1.5 lit/vine) will help to control mealybugs. **Please consider the PHI of 40 days before use.**
- Sulphur 80 WDG @ 2 g/lit (PHI 15 days) 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
- If thrips infestation is noticed on growing shoots and developing berries apply emamectin benzoate 5 SG @ 0.22 g/lit (PHI 25 days).

*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.