

# 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 26/01/2017) - Thursday (02/02/2017)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Nasik</b>	16-18	29-33	<b>No Rain</b> Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear	02-18	17-31	42-82
<b>Pune</b>	18-19	32-34	<b>No Rain</b> Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	00-18	12-26	40-62
<b>Solapur *</b>	20-22	32-35	<b>No Rain</b> Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear-Partly cloudy	02-19	12-27	33-62
<b>Sangli *</b>	19-21	33-35	<b>No Rain</b> Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad, Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear	02-21	14-26	40-64
<b>Bijapur *</b>	20-22	32-34	<b>No Rain</b> Bijapur, Tikota, Telsang, Chadchan	Clear - Partly cloudy	00-23	13-27	32-68
<b>Hyderabad *</b>	17-18	30-33	<b>No Rain</b> Hyderabad, Medchal, Rainlaguda. Zahirabad	Clear - Partly cloudy	02-16	21-36	53-94

\* 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: 4 to 6 mm

#### **Amount of irrigation advised**

For October pruned vineyards, during Berry growth stage and ripening to harvest stage, apply irrigation through drip @ 6,800 to 10,200 L/ acre/ day.

In late pruned vineyards (Nov., 2016), during berry development stage, apply irrigation through drip @ 6,800 to 10,200 L/ acre/ day.

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

#### **October pruned vineyard**

1. Berry development 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. If the soil has high calcium carbonate content, apply 5 kg Zinc sulphate along with 5 kg Ferrous sulphate in two splits (if not applied earlier).
2. 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)**

Almost all the doses of PGR's are already applied. At this stage one has to avoid physiological disorders viz. Sunburn, Ukadya and berry cracking disorders results in great loss of yield hence, there should not be a too much buildup of humidity and appropriate irrigation has to be provided to the vines.

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

1. During this week, the minimum temperature will be higher than 15 degree celsius. The maximum temperature is also rising above 32 degree. Hence, the rate of transpiration will be higher. At the same time the demand of water requirement by the vine will also be higher. Hence, the irrigation requirement based on the crop load also to be considered. Reduction in irrigation water may lead to loose bunch and berry drying at the tip.
2. Planting of root stocks should also be completed possibly in the coming week. This will help in easy setting of plants in the field.
3. Re-cut of grafted vines should be given priority. Application of hydrogen cyanamide @ 40ml/lit will help for better and early bud sprouts.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthraco nose	Others (specify)
95 – 101	Nil	Low	Nil	Nil

As the weather is relatively clear with no immediate concern for rain, powdery mildew incidence is the only threat at this stage. For powdery mildew management, application of sulphur 80WP@2g/L is advised. Use of biocontrol agents like *Bacillus* sp/*Trichoderma* sp/*Ampelomyces* sp may be continued. To aid powdery mildew control as well as bioremediation prior to paper wrapping the berries, they should be sprayed with *Bacillus subtilis*@ 3-4g/L.

## 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:

- The **spot treatment** is advisable to control localised infestations of mealybugs instead of blanket spraying over entire area. This will also reduce the labor and insecticide cost **besides minimization of the risk for residue**
- 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
- 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 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

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](mailto:director.nrcg@icar.gov.in).