

# मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

## Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/04/2018)

### I. Weather Data for the Prevailing Week

Thursday (26/04/2018) - Thursday (03/05/2018)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Nasik</b>	22-24	38-40	Nashik, Shirdi, Loni, Baswant, Pimpalgaon, Ojhar, Palkhed, Dindori, Vani, Niphad, Kalwan Devla, Satana, <b>No Rain</b>	Partly Cloudy	08-22	15-19	40-87
<b>Pune</b>	23-25	38-41	Pune, Phursungi, <b>Drizzling –Sat Sun Mon Tue</b> Loni Kalbhor, Uruli Kanchan Patas, Supa, Baramati, Yavat Narayangaon, Junnar <b>No Rain</b>	Clear	05-23	05-22	45-85
<b>Solapur</b>	28-30	41-43	Solapur, Nanaj, Vairag, Kati, - Osmanabad, Tuljapur, Latur, AUSA, Pandharpur, Kasegaon, Atpadi, Pangri, Barshi <b>Drizzling – Wed</b>	Clear	04-20	09-21	26-49
<b>Sangli</b>	24-25	38-42	Sangli Miraj, Shetfal Khanapur, Palsi, Vite <b>Drizzling- Wed</b> Shirguppi, Kagvad, Arag, Kavatha Mahankal, Tasgaon Palus, Valva, <b>No Rain</b>	Partly Cloudy	07-22	12-28	49-83
<b>Bijapur</b>	27-28	39-41	Bijapur Tikota, Telsang Chadchan <b>Drizzling- Mon Tue Wed</b>	Mostly Clear	05-25	09-24	31-59
<b>Hyderabad</b>	24-26	38-40	Hyderabad, Medchal, Zahirabad <b>Drizzling- Mon Tue Wed</b>	Clear	04-15	28-33	61-86

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: 10 days**  
**b) Expected growth stage of the crop: Bud sprouting stage**

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

Expected pan evaporation: 9 to 11 mm

#### Amount of irrigation advised

1. Rest period: Provide only need based irrigation to protect the existing leaves from drying and also contribute towards increasing the reserves of the vines through photosynthetic activity. The quantum of irrigation water applied should be approx. 5000 L/ acre, twice in a week. Care should be taken to reduce/stop the water in case new growth is observed on the shoot.

2. Shoot growth stage:
  - a) Irrigation water < 1dS/m : apply irrigation through surface drip @ 12,240 to 13,600 L/acre per day during shoot growth stage for Nasik, Pune and Hyderabad region and from 13,600 - 14,960 L/acre per day for Solapur, Sangli and Bijapur region.
  - b) Saline irrigation water (1.1 – 2.0 dS/m): apply irrigation through surface drip @ 15,300 to 17,000 L/acre per day during shoot growth stage for Nasik, Pune and Hyderabad region and from 17,000 - 18,700 L/acre per day for Solapur, Sangli and Bijapur region.
  - c) Mulching the vineyards during this period will reduce the salinity build up in the root zone due to upward movement of saline water from lower soil layer. This will also reduce the irrigation water requirement by another 10%.
3. In case there is probability of less irrigation water availability, then flood the bund (not whole vineyard) at pruning and mulch the bunds. Flooding the bund will reduce the accumulated salt load in the root zone and mulching will reduce the evaporation of water from soil surface. Thus, this will reduce the salt load in the soil and at the same time saturate the soil leading to proper sprouting. Further, in case less irrigation water is available still the newly emerging shoots will not be damaged due to salinity.
4. Cover the cordons of the pruned vines with shadenet, if available, for uniform sprouting as well as reducing the irrigation water needs by 20-25 %. Shadenet coverage will reduce the temperature impact on the cordons. However, remove shadenet after 3-5 leaf stage.
5. If shade net is not available, spray the cordons with water during the peak heat period i.e. 2-3 pm to reduce the heat effect on the buds.

**Foundation pruning season:**

1. Apply FYM/ compost/other organic sources including green manuring atleast 12-15 days before Foundation pruning. If possible mix 200 kg Single super phosphate in the FYM and apply in the soil. Application of organics improves the nutrient and water retention in the root zone and reduces nutrient losses from the profile.
2. If soils are calcareous in nature, then apply 50 kg sulphur between the vines in the soil. The sulphur should be properly mixed in the soil for improving its efficacy in taking care of calcium carbonates. Mixing of sulphur in organics lead to better utilization of sulphur for reducing calcium carbonate in the root zone along with reduction in soil pH also.
3. At shoot growth stage, apply 25 kg urea/ acre in 2 -3 splits after sprouting. In case of vigorous growth of shoots, stop nitrogen application and wait for the growth to stabilize before resuming nitrogen application. In calcareous soils, donot apply urea, instead use Ammonium sulphate @ 40 kg/acre in atleast 3 splits from sprouting onwards till next 10 days.
4. During fruit bud differentiation stage, based upon soil test values, apply 45 – 50 kg phosphoric acid or 250 kg SSP in case the soils are deficient in phosphorus. Phosphoric acid application is desirable in calcareous soils.
5. At 45 DAP, perform petiole test to know the nutrient content of the vines. The petioles should be collected from 5<sup>th</sup> leaf from the base of the shoot counting the leaves even if they have been removed.
6. Keep a close watch on the development of leaf blackening symptoms from the margin.

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

Nil

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

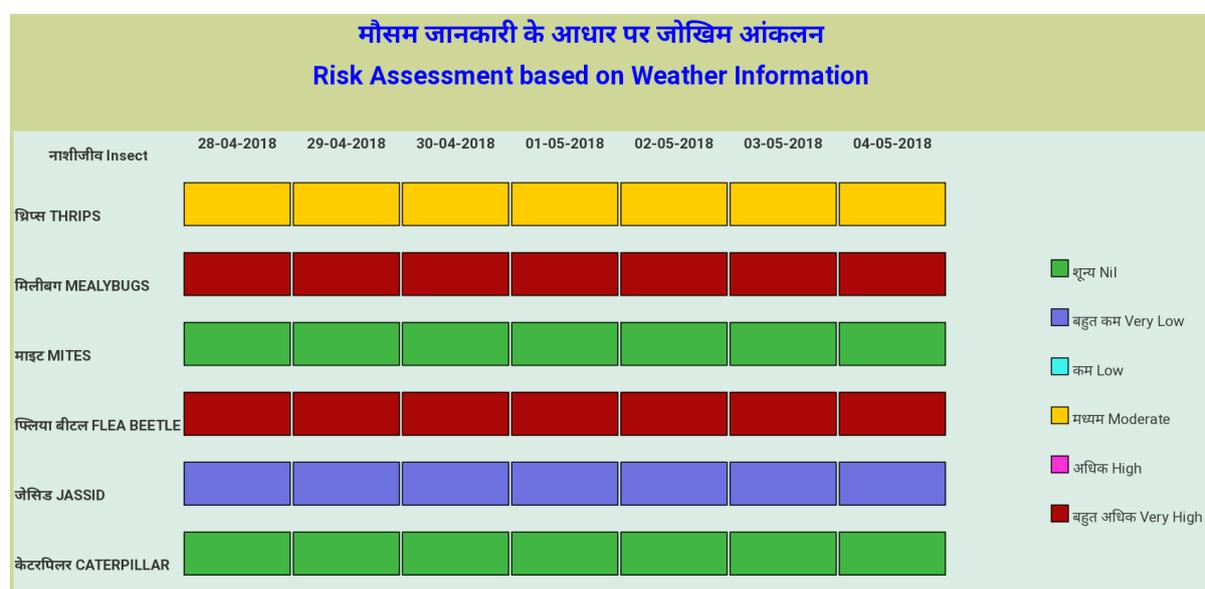
Nil

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
NA	-	-	-	-

An application of sulphur @2-3g/L is recommended

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



- Preventive application of imidacloprid 17.8 SL @ 0.3 ml per litre water at sprouting is effective to manage flea beetle, thrips, and shoot malformaiton due to mealybugs.
- Newly grafted vineyards may experience heavy thrips and moderate jassid infestation on new growth after re-cut or shoot tipping. Fipronil 80 WDG @ 0.06 g/L water or emamectin benzoate 5 SG @ 0.22 g/l water are effective against both thrips and jassids.

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).