

# मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

## Weather Forecast Based Weekly Advisory

(Assumption: Pruning date-15/04/2016)

### I. Weather Data for the Prevailing Week

Thursday (23/06/2016) - Thursday (30/06/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Nashik</b>	22-23	28-29	<b>Sun-Mon, Light Rain</b> Niphad, Devla, Satana, Pimpalgaon, Chanwad, Dindori, Vani, Devla, Kalwan, Shirdi, Rahata, Loni,	Cloudy	60-21	66-68	91-100
<b>Pune</b>	22-23	27-29	<b>Sun-Mon, Light Rain</b> Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati, Narayangaon, Junnar	Cloudy	01-18	67-72	92-100
<b>Solapur</b>	22-23	29-31	<b>More Rain on Wed Onwardd</b> Nanaj, Vairag, Kati, Kari, Pangri, Barshi, Osmanabad, <b>Light Rain Full Week</b> Latur, Ausa, Killari	Cloudy	02-20	62-68	91-95
<b>Sangli</b>	21-22	26-28	<b>More Rain on Sun and Wed</b> Kavate Mahankal, Manerajuri, Palsi, Khanapur, Vita, Tasgaon, <b>Sun-Mon, Good Rain</b> Sangli, Miraj and adjoining Karnataka	Cloudy	10-26	70-84	91-100
<b>Bijapur</b>	21-22	27-28	<b>Sat, Light Rain</b> Bijapur, Tikota, Telsang,	Cloudy	18-32	68-70	76-93
<b>Hyderabad</b>	22-23	28-34	<b>Sat and Tue-Thu, Light Rain</b> Hyderabad, Rainlaguda, Medchal,  <b>Tue-Thu, Light Rain</b> Zahirabad,	Cloudy	08-23	58-78	88-90

### II. a) Days after pruning:

#### b) Expected growth stage of the crop

45-65 days - Fruit differentiation – Subcane development

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

**Expected pan evaporation:** 4-8 mm

All recommendations are per acre/hectare basis.

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

1. In case of April pruned vineyards, the vines are at Cane maturity and Fruit Development stage. Provide irrigation through drip @ 5600 - 11,200 litre/ha/day.
2. In case of Late pruned vineyards (May), the vines are in Fruit bud differentiation stage. Provide irrigation through drip @ 7000 - 11,200 litre/ha/day at Fruit bud differentiation in case no rains are received. Any deficit during this stage could reduce the vine yield by 8- 10% during Fruit pruning season.
3. In case rain exceeds 5 mm on a given day, irrigation water application can be skipped for that day. As a thumb rule, do not irrigate the vines if the soil moisture is at field capacity (wapsa condition).

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

#### **Through fertigation:**

1. In case of April pruned vineyards, Potassium application is required from Cane maturity stage onwards. Approx. 64 kg of sulphate of potash (soluble grade) should be applied in this stage. Split the application into at least six doses to reduce the leaching losses of the potassium.
2. In case of May pruned vineyards, Phosphorus application should be made during Fruit Bud differentiation stage for proper bud differentiation. Approx. 34 kg phosphoric acid (85% P<sub>2</sub>O<sub>5</sub>) should be applied. This should be followed by application of 10 kg/acre of magnesium sulphate.
3. In case of calcareous soils where acute iron deficiency is observed, repeatedly spray 2-3g/L Ferrous sulphate two to three times at 4-5 days interval followed by 15-20 kg/acre Ferrous sulphate application through drip. The fertigation dose should be split into atleast 3 doses of 5kg each.
4. The rains have started. The vineyards where sodicity problems are there, apply gypsum to the soil for removal of sodium from the soil exchange complex. In case of calcareous soils, use sulphur for similar purpose.
  - Through direct application:
  - Any specific step in relation to weather (rainfall)

### **V. Any specific recommendation for canopy management (Dr. R.G. Somkuwar)**

1. **Timely pruned vineyard:** In this vineyard, cane maturity started. However, due to rains or cloudy weather, there will be buildup of relative humidity resulting into more vigor. This will delay the cane maturity. Hence, under such situation, pinching of shoot tip should be followed.

2. **Late pruned vineyard:** At this stage, the vines must be in the stage of fruit bud differentiation. With the rainfall and increase in relative humidity may lead to reduction in fruitfulness of vine. Under such situation, avoid making sub cane. Removal of 2-3 basal leaf will help to reduce the microclimate in the canopy near cordon thereby reducing the disease spread

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

Light rains will be incident in most of the places and incidence of bacterial spot and anthracnose will be observed in the event of development of new shoots. Avoid such growth as suggested under canopy management. Application of Thiophenate methyl 70WP @ 1g/L+Mancozeb @2.5g/L should be done to control the diseases if initial symptoms are noted. For areas where rainfall is slightly higher, and repeated within continuous 2-3 days downy mildew incidence is likely in most areas due to lowering temperature below 30°C and leaf wetness. Downy mildew can be effectively controlled by application of potassium salt of phosphorous acid 2-3 g/L + mancozeb 2.0 g/L as tank mix. If the rain spell continues second application may be given at 5-6 days interval when first opening is observed.

In a situation where cloudy days are continuous and most of the time drizzling was observed, incidence of powdery mildew is likely. Powdery mildew can be controlled by spray of 80WG sulfer @ 1.5 – 2.0 g/L.

Wherever canes have grown, and leaves have matured, downy mildew can be controlled by copper based fungicide such as new formulation copper hydroxide 1.5 g/L. This formulation will use less copper and is good for the vineyard.

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

### Risk levels of different insects

Thrips	Caterpillar	Mealybug	Jassids	Flea beetle	Mites
Low to Moderate	Moderate to high	Moderate to high	Low	Low	Moderate to High

Remove excess shoot growth to reduce thrips population. If thrips population is high, emamectin benzoate 5 SG @ 0.22 g/liter or fipronil 80 WG @ 0.06 g/liter water can be given. Emamectin benzoate and fipronil are also effective against caterpillars. Buprofezin 25 SC @ 1.25 ml/liter water can be used for the control of mealybugs. As relative humidity is increasing, application of entomogenous fungi, e.g., *Lecanicillium lecanii* or *Beauveria bassiana* or *Metarhizium anisopliae* as preventive plant wash at fortnight intervals can be useful to reduce mealybug populations. For the management of mites, sulphur 80 WDG @ 2.0 g/L water is effective. Pre harvest interval (PHI) mentioned in the Annexure V of the Residue Monitoring Plan (RMP) should be adhered to.

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).