

# मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

## Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 10/10/2016)

### I. Weather Data for the Prevailing Week

Thursday (27/10/2016) - Thursday (03/11/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Nasik</b>	19-21	32-33	<b>No Rain</b> Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear	03-16	22-34	54-76
<b>Pune</b>	19-22	32	<b>No Rain</b> Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	03-18	31-44	56-81
<b>Solapur</b>	20-24	33-34	<b>No Rain</b> Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear – Partly Cloudy	08-23	23-41	62-78
<b>Sangli</b>	20-23	32-33	<b>Sun Light Rain</b> Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad. <b>No Rain</b> Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear – Partly Cloudy	06-21	21-45	53-81
<b>Bijapur</b>	21-23	32-34	<b>No Rain</b> Bijapur, Tikota, Telsang, Chadchan	Clear – Partly Cloudy	08-21	25-48	53-85
<b>Hyderabad</b>	19-22	29-31	<b>No Rain</b> Hyderabad, Medchal, Zahirabad, Rainlaguda.	Clear – Partly Cloudy  * Fri (28/10) – Tropical storm condition possible.	13-21	35-61	70-97

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: $\geq 15$ days**

### **b) Expected growth stage of the crop: Early shoot growth**

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

Expected pan evaporation: 4 to 6 mm

### **Amount of irrigation advised**

During shoot growth stage, apply irrigation through drip @ 6800 L/ acre/ day for Nasik, Pune, Hyderabad and Sangli regions and from 8500 to 10,200 L/ acre/ day for other regions. Further, in case vigour is more than desired, then reduce irrigation water application by half to 3400 L/ acre/ day for Nasik, Pune, Hyderabad and Sangli regions and 4250 L/acre/ day for other regions. Still if you are not able to control the vigour, stop irrigation till such time vigour is controlled.

During Flowering to setting stage, apply irrigation through drip @ 2800 L/ acre/ day for Nasik, Pune, Hyderabad and Sangli regions and from 3360 L/ acre/ day for other regions. Further, in case vigour is more than desired, then reduce irrigation water application by half to 1400 L/ acre for Nasik, Pune, Hyderabad and Sangli regions and 1680 L/acre for other regions.

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

1. **Before fruit pruning:** Apply FYM/ compost/other organic sources including green manuring atleast 12-15 days before fruit pruning. If possible mix 200 kg Single super phosphate in the FYM (based upon soil test) 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. If soils are calcareous in nature, then apply 50 kg sulphur between the vines in the soil. In case of calcium carbonate content is more than 15 % apply 100 kg sulphur per acre in the root zone. The sulphur should be properly mixed in the soil for improving its efficacy in taking care of calcium carbonates. Mixing of sulphur along with organics lead to better utilization of sulphur for reducing calcium carbonate in the root zone along with reduction in soil pH also.
2. Based upon the soil test value, during shoot growth stage apply urea @ 15kg / acre this week in two splits. If the soil is calcareous, instead of urea apply ammonium sulphate @ 20 kg/ acre in two splits this week. Depending upon the crop vigour, regulate nitrogen application.
3. If the crop is between 5 leaf to prebloom stage, apply Zinc sulphate and Ferrous sulphate @ 15 kg/ acre based upon soil test value. Boron application should be carried out only if soil test value indicates low levels and the irrigation water does not contain boron. If during foundation pruning, the petiole test stated that boron was deficient then apply boric acid @ 1.5 kg to 5 kg depending upon the soil test value. Apply one kg boric acid at a time.
4. Apply 10 kg Magnesium sulphate per acre if the crop is between 5 leaf to prebloom stage.
5. If sodicity problem is there, apply 10 kg Sulphate of potash per acre in 2 splits this week.
6. Do not apply any nitrogen based fertilizer just before Flowering to Setting stage to avoid problems of kooj (inflorescence necrosis). Apply 5 kg Phosphoric acid in two splits this week.

7. After Berry setting, continue initially with Phosphoric acid application @ 5 kg in two splits this week.
8. If the berry size is from 2-4mm, spray calcium & 2g Calcium Chloride or 0.5 g Ca chelate per litre.

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

## **VI. Recommendation for canopy management (Dr. R.G. Somkuwar)**

- Removal of excess shoots at 14 to 16<sup>th</sup> days after fruit pruning needs to be done. This will avoid the losses of nutrients from the cane and also improve the photosynthesis of leaf. The spray coverage will be proper and help to control the disease efficiently.
- Spray bunches with GA3 either at parrot green colour stage of a bunch or at approximately 18 to 20 days after the fruit pruning. The stage will depend upon weather condition available during the time and soil type of that garden.
- In the vineyard at berry setting stage, removal of 2-3 basal leaf will help to reduce the microclimate in the canopy thereby improving the photosynthesis.

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

- This week, there will be no rains in majority of the grape areas except in some areas of Solapur and Sangli where light rains may occur during Friday-Monday.
- As temperature is likely to shoot above 30°C, the risk for downy will decrease slowly whereas the risk for powdery mildew will increase due to high RH.
- **For downy mildew**
  - At ponga stage, spraying of Mancozeb @ 2 g /litre of water
  - At 2-3 leaf stage, spraying of Systemic fungicides:
    - Dimethomorph 1 g + Mancozeb 2 g (Tank mix)
    - OR
    - Dimethomorph +Ametoctradin (Ready mix + Compound Fungicide) 2 g/litre of water
    - OR
    - Cymoxynil + Mancozeb (Compound Fungicide) 3 – 3.5 g/litre of water
- **For powdery mildew**
  - At 5-6 leaf stage: Spraying of fungicides from triazole group, e.g. Difenconazole @ 0.5 ml/lit or tebuconazole + fluopyram (ready mix) @ 0.57 ml/lit. The triazole fungicides will help to control the powdery mildew on new growth and also help to regulate the excess vine growth after rains. Metrofenon can also be sprayed till fruit set.
  - At more than 8-10 leaf stage: Spray chitosan @ 2-3 ml/lit after a spray of fungicide for better control of powdery mildew

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

### Risk levels of different insects

Thrips	Caterpillars	Mealybug	Jassids	Flea beetle	Mites
Very High	Low to Moderate	High	Very high	high	Nil

- High risk of infestation of thrips, jassids, flea beetle and mealybugs on actively growing tender shoots and leaves.
- Installation of light traps will be helpful in controlling jassids in particular and moths in general. Run the light traps for 3 hours daily, during evening between 7.00 pm – 10.00 pm for maximum catch efficiency.
- Application of entomopathogenic fungi, *Beauveria bassiana* + *Lecanicillium lecanii* ( $2 \times 10^8$  spores/ml) @ 5.0 + 5.0 mL/L twice at fortnightly interval may help to check the population of thrips, mealybugs and jassids.
- **Need based chemical application:** Spraying of imidacloprid 17.8 SL @ 0.3 ml/lit or fipronil 80 WDG 0.06 g/lit or emamectin benzoate 5 SG @ 0.22 g/lit or lambda cyhalothrin 5 EC @ 0.5 ml/lit will be helpful to control thrips, jassids, mealybugs, flea beetle and caterpillars.

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).