

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/09/2018)

I. Weather Data for the Prevailing Week

Thursday (04/04/2019) -- Thursday (11/04/2019)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nashik	22-24	39-40	No Rain	Clear	03-18	13-17	53-70
Pune	23-25	38-40	Baramati, Junnar, Narayangaon Thu Drizzling	Clear	04-18	15-17	44-73
Solapur	25-27	38-40	Solapur, Nanaj, Kati, Pangri, Tuljapur, Osmanabad, Ausa, Pandharpur, Kasegaon, Atpadi Fri- Drizzling	Clear	06-14	15-20	32-53
Sangli	24-25	38-41	Shetfal, Kavathe Mahankal Fri- Drizzling Khanapur Thu Drizzling	Clear	05-16	13-24	60-81
Bijapur	25-29	39-41	Chadchan Fri- Drizzling	Clear	05-17	12-20	38-64
Hyderabad	24-26	38-41	Zahirabad Fri- Drizzling Medchal Next Thu Drizzling	Clear	06-12	21-23	58-68

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: Nil

b) **Expected growth stage of the crop:** - Post harvest resting stage / very early pruning stage

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

Expected pan evaporation: 8 to 10 mm

Amount of irrigation advised:

1. **During ripening to harvest stage**, apply irrigation through surface drip @ 13,600 to 15,300 L/acre per day during shoot growth stage for Nasik and Pune region region and from 15,300 - 17,000 L/acre per day for Sangli, Solapur, Hyderabad and Bijapur region.
2. **During ripening to harvest stage**, as the temperature is rising, donot withhold water as this might lead to loose bunch, thereby affecting the quality of produce.
3. **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 – 7500 L/ acre, once in a week. Care should be taken to reduce/stop the water in case new growth is observed on the shoot.
4. **Shoot growth stage:**
 - a. Irrigation water < 1dS/m : apply irrigation through surface drip @ 10,880 to 12,240 L/acre per day during shoot growth stage for Nasik and Pune region and from 15,300 - 17,000 L/acre per day for Sangli, Solapur, Hyderabad and Bijapur region.
 - b. Saline irrigation water (1.1 – 2.0 dS/m): apply irrigation through surface drip @ 13,600 to 15,300 L/acre per day during shoot growth stage for Nasik and Pune region region and from 15,300 - 17,000 L/acre per day for Sangli, Solapur, Hyderabad and Bijapur region.
 - c. In case the shoot growth is vigorous, reduce irrigation water application till growth is controlled.
 - d. In case there are rains, withhold irrigation water application if the soil is at field capacity (wapsa condition).
5. 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.

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

Rest period to Foundation pruning:

1. Apply 10kg Urea, 10 kg DAP and 10 kg Sulphate of Potash/ acre in two splits every 15-20 days.
2. 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.
3. If planning for foundation pruning in next 10- 15 days, it is advised to get soil and water analysed for planning nutrient and water application schedule for foundation pruning season.

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.

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

Nil.

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

Cultural practices to be followed:

Old vineyard:

In old vineyard where the foundation pruning is completed, the problem of bud sprouting is becoming serious problem. The increase in temperature and reduction in relative humidity is the main reason. However, during this week, the rainfall in some areas and also cloudy weather may help to increase the relative humidity and reduction on temperature.

Under the situation where pruning is yet to be started, the following precautions need to be followed.

- 1) Irrigation to the vines before foundation pruning. Complete irrigation will help to reduce the temperature and thereby increasing the relative humidity.
- 2) After the trench opening, close the trench immediately after the application of farm yard manure. This will help to reduce the injury to root cells.
- 3) Irrigate the vines twice in a day (11.0am to 12.0pm and 3.0 to 4.0pm). The water spray droplet should be bigger in size. This will help in increasing the relative humidity near the sprouting buds.
- 4) Cover the vines with shade nets. This will reduce the temperature and increase relative humidity thereby maintaining the sap flow from cordon to buds.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
—	Nil	Nil	Low	Bacterial spot

It is advised to go ahead with pruning so as to ensure uniform sprouting in areas where light drizzling is expected. In areas where pruning is done application of Mancozeb @ 2g/L + Thiophenate methyl @ 1g/L may be done to control bacterial spot and anthracnose diseases.

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

Days after pruning	Risk of pests			
	Mealybug	Mite	Thrips/leafhopper	Caterpillar
>172 Stage: Vine resting stage after harvest	High	High	Low	Nil

- Spot plant wash with buprofezin 25 SC @ 1.25 ml per litre water with 1.5-2.0 litre water per plant.
- Sulphur 80 WDG @ 1.5-2.0 g/L or abamectin 1.9% EC @ 0.75 ml/L water may be applied if mite infestation is observed.

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.