

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/04/2017)

I. Weather Data for the Prevailing Week

Thursday (04/05/2017) - Thursday (11/05/2017)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	24-26	35-38	Drizzling Nashik, Ojhar, Pimpalgaon, Baswant, Niphad, Devla, Vani, Kalwan, Satana - (Sat- Sun) Palkhed – (Sat-Mon) Shirdi, Loni, Rahata – (Sun - Thu)	Clear	06-18	20-23	48-74
Pune	23-25	33-37	Drizzling Loni Kalbhor, Uruli Kanchan, Yavat, , Rahu, Pargaon Supa, Baramati, Patas – (Sat- Thu) Narayangaon, Junnar (Sat-Sun)	Clear	05-18	25-33	65-78
Solapur	28-29	37-40	Drizzling Solapur, Nanaj, Pandharpur, Kati Vairag, Tuljapur, Osmanabad, Latur, Ausa, Pangri, Kasegaon, Atpadi, Barshi,Kati – (Sat - Thu)	Clear	03-18	17-24	37-46
Sangli	26-27	37-39	Drizzling Sangli, Palus Valva, Tasgaon, Shetfal, Palsi, Vite, Kavate, Mahankal – (Mon- Thu) Miraj, Kagvad, Shirguppi, Arag, Shirol (Wed, Fri- Thu)	Clear	06-21	17-24	69-78
Bijapur	28-30	38-41	Drizzling Bijapur, Tikota, Telsang Chadchan – (Thu- Thu)	Clear	05-24	16-23	43-53
Hyderabad	26-27	38-40	Drizzling- Medchal Hyderabad – (Sun- Wed) Zahirabad – (Sat- Thu)	Clear – partly cloudy	05-13	23-30	53-72

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: 20 days.

b) Expected growth stage of the crop: Forward pruning.

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

Expected pan evaporation: 8.5 to 10.5 mm

Amount of irrigation advised

1. After Foundation pruning, apply 14,450 to 16,150 L/acre per day during shoot growth stage for vineyards in Nasik and Pune, 17,300 to 17,850 L/acre per day for Sangli, Solapur, Bijapur and Hyderabad regions during shoot growth stage. During Fruit bud differentiation stage, apply 5500 TO 6000 L/ acre / day.
2. Forecasted for drizzling, hence irrigation water application should be based upon the growth of the vines and could be still lower.
3. In case there is probability of less irrigation water availability, then flood the bund (not whole vineyard) at pruning and mulch the bunds. Mulching will reduce the evaporation of water from soil surface. Flooding the bund will wet the deeper layers and thus, also reduce the evaporation losses. Thus, this will reduce the salt load in the soil and at the same time saturate the soil leading to proper sprouting.
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.

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

Foundation pruning season:

Pre- pruning

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.

Shoot growth stage

1. At shoot growth stage, apply 20 kg urea/ acre in 2 -3 splits after sprouting. In case the soil is calcareous, use ammonium sulphate @ 30 kg/ acre in 2 -3 splits. Do not exceed 65 kg urea or 100 kg Ammonium sulphate on per acre basis during shoot growth stage.
2. In case of vigorous growth of shoots, stop nitrogen application and wait for the growth to stabilize before resuming nitrogen application.

Fruit bud differentiation stage

1. 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.
2. At 45 DAP, perform petiole test to know the nutrient content of the vines. The petioles should be collected from 5th leaf from the base of the shoot counting the leaves even if they have been removed.
3. Keep a close watch on the development of leaf blackening symptoms from the margin.

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

No recommendations as on date.

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

1. New vineyard

Based on the weather prediction during this week, the humidity build up will be more than 50%. This will help to boost the vegetative growth. Hence, nitrogen supply to the vines should be given importance.

The shoots developed on the new cordons are to be pinched at 3-4 leaf so that the lateral shoot cane be tied on the wire for further extension of cordon.

2. Old vineyard

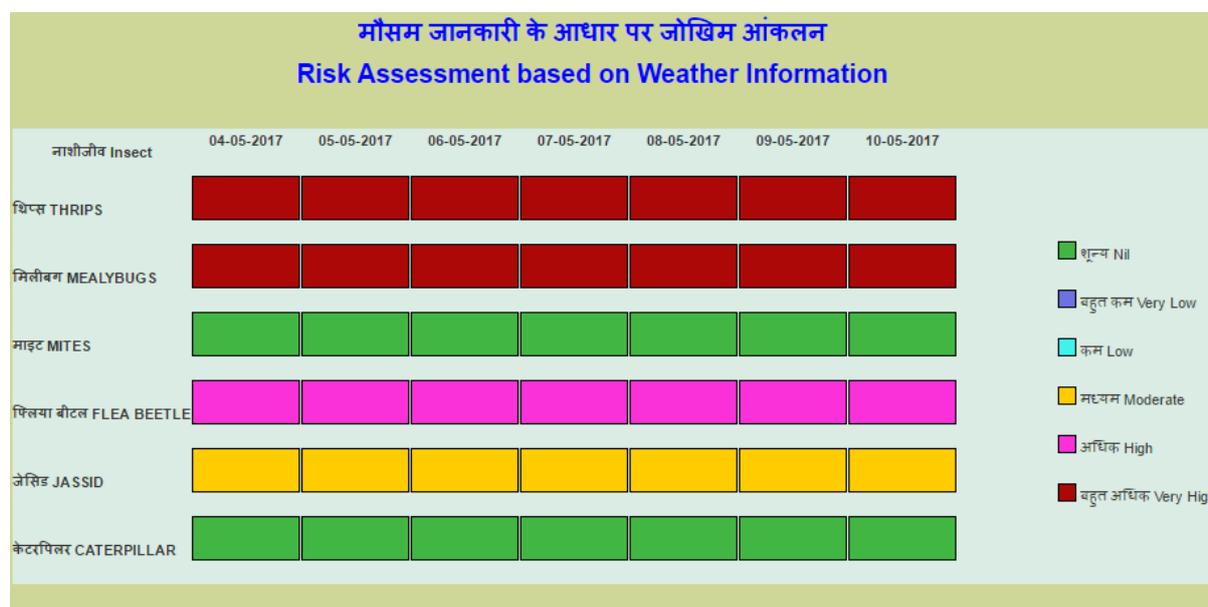
After the foundation pruning, the bud sprouting will be delayed due to high temperature and low humidity. Increase in relative humidity in the atmosphere during this week may help to increase bud sprouts. However, under the condition of high temperature and low humidity, spray of water twice in a day (once during 11.0 am to 12.0 pm and second during afternoon at 3.0 to 4.0 pm) from 6th days after fruit pruning to 15th day may be taken up. This will help for early and uniform bud sprout and also avoid dead arms on the cordon.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
20	Nil	Nil	Nil	Nil

In locations where rains have already occurred new shoots should be protected from anthracnose and bacterial leaf spot by the application of Thiophenate methyl@1g/L +Mancozeb@2g/L. If new shoots are damaged by hailstorms, there is no need to take a recut and it is advised to protect the shoots by spraying Thiophenate methyl@1g/L +Mancozeb@2g/L. It is expected that fruitfulness will not be affected.

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



- The newly pruned vineyards should carefully be observed for mealybug infestation.
- Spot application of buprofezin 25 SC @ 1.25 ml/L may be given to control localized infestations of mealybugs.

- At sprouting stage, preventive application of Imidacloprid 17.8 SL @ 0.3 ml/lit will help in control of thrips flea beetle, jassids and mealybugs. This will also prevent shoot malformation due to sap sucking by mealybugs.

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.