

# मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

## Weather Forecast Based Weekly Advisory

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

### I. Weather Data for the Prevailing Week

Thursday (29/06/2017) - Thursday (06/07/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Nasik</b>	22-23	26-27	Nashik -Thu,Sat , Sun <b>Drizzling</b> , Fri, Mon to Thu <b>light rain</b> Shirdi, Loni, Rahata - Thu to Thu <b>Drizzling</b> Palkhed, Vani Dindori- Thu,Sat , Sun <b>light rain</b> , Fri, Mon to Thu <b>Moderate rain</b> Kelvan, Devla - Mon To Thu <b>Drizzling</b> , Thu, Fri, Sat,Sun <b>light rain</b> Pimpalgaon- Thu <b>light rain</b> , Fri to Tue and Thu <b>Moderate rain</b> Wed <b>Good rain</b> Ojhar- Thu <b>light rain</b> , Fri to Tue and Thu <b>Moderate rain</b> , Wed <b>Good rain</b> Niphad- Mon, Tue, Wed <b>Drizzling</b> , Thu to Sat, Sun, Thu <b>light rain</b> Satana- Thu to Thu <b>Drizzling</b>	Mostly Cloudy	13-31	80-87	94-97
<b>Pune</b>	21	24-26	Pune, Phursungi, Uruli Kanchan, Narayangaon, Junnar - Thu-Thu <b>Moderate rain</b> Loni Kalbhor, Patas Yavat, Supa, Baramati, Thu to Thu <b>drizzling</b> ,	Mostly Cloudy	13-24	88-89	98-100
<b>Solapur</b>	22-23	29-31	Solapur, Nanaj, Vairag, Kati, Osmanabad, Latur, Ausa, Pandharpur, Kasegaon, Atpadi, Pangri, Barshi - Thu-Thu <b>drizzling</b> Tuljapur- Thu-Tue <b>drizzling</b> , Wed <b>light rain</b>	Partly Cloudy	14-27	62-67	89-91
<b>Sangli</b>	22-23	28 - 30	Sangli, Arag - Mon to Thu <b>drizzling</b> , Thu to Sun <b>light rain</b> Kavatha, Palus, Valva, Tasgaon, Miraj, Shirguppi, Kagvad, Shetfal, Palsi, Khanapur, Vite - Thu-Thu <b>drizzling</b>	Partly Cloudy	14-35	61-70	87-90
<b>Bijapur</b>	22-23	29-32	Bijapur, Tikota, Telsang, Chadchan - Thu to Thu <b>drizzling</b>	Partly cloudy	14-35	57-62	86-90
<b>Hyderabad</b>	23	31-32	Hyderabad, Zahirabad, Medchal - Thu to Thu <b>drizzling</b>	Partly Cloudy	11- 27	63-70	87-91

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: 74 days.**

**b) Expected growth stage of the crop:** 61-90 days-cane maturity

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

Expected pan evaporation: 3 to 5 mm

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

1. All the grape growing regions are forecasted to receive from drizzle to moderate rains. The irrigation water application should be based upon the growth of the vines. In case rain exceeds 5 mm on a given day, irrigation water application can be skipped for that day. Generally, under wapsa (field capacity) condition of the soil, do not apply irrigation.
2. In case of April pruned vineyards, the vines are at Cane maturity and Fruit Development stage. Provide irrigation through drip @ 3500 litre/ha/day.
3. In case of Late pruned vineyards (May), the vines are either in Fruit bud differentiation stage. Provide irrigation through drip @ 3500 litre/ha/day in case no rains are received. Any deficit during this stage could reduce the vine yield by 8- 10% during Fruit pruning season.

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

### **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 5<sup>th</sup> leaf from the base of the shoot counting the leaves even if they have been removed.
3. In case of soils where irrigation water used has sodium exceeding 100ppm, moisten the bund and mix gypsum in the moistened soil @100 kg /acre. In case of calcareous soils apply sulphur @ 75kg/acre. This should be followed by application of SOP @ 25-30 kg/acre or 0-0-50 in splits through drip.
4. 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.

### **Cane maturity and Fruit bud development stage:**

1. 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 atleast five doses to reduce the leaching losses of the potassium. Apply 15 kg SOP in two – three splits during this week.
2. 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.
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.

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

Nil.

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

### 1. New vineyard

During rainy situation, the shoot growth will be at faster rate. This may create the problem in fruit bud differentiation in the new shoots emerged on second instalment of cordon development. Hence, removal of 2-3 basal leaf and shoot pinching will help to receive the uniform sunlight as the shoot will be vertically positioned on the cordon. Shoot training on the wire will help to reduce the microclimate in the canopy thereby reducing the chances of diseases.

Under no rain condition, the condition in the orchard will be still humid. There will be emergence of side shoots on the shoots pinched either for sub cane development or for development of second installment of cordon. Under such situation, removal of side shoots should be given the priority.

### 2. Rootstock management:

The rootstock garden might be expressing excess growth. At this stage, removal of excess shoots and retention three straight growing, healthy and disease free shoots should be given priority. These shoots will be used for grafting during the next month. The selected thinned out shoots are to be trained to the bamboo with the support of sutali.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
74	Moderate	low	low	Low Bacterial leaf spot

In Nashik and Junnar region, there is a probability of heavy rains from Monday onwards and infection of downy mildew may be seen. Application of potassium salt of phosphoric acid @2g/l +Mancozeb @2g/L for downy mildew control is recommended in case of late pruned vines. For timely pruned vines, application of copper hydroxide @ 2.5-3g/L is advised as a prophylactic action against downy mildew. Rest of the places will be cloudy with slight drizzle and powdery mildew might be favoured. Application of sulphur 80WDG @ 2g/L against powdery mildew is advised. In Solapur region where the temperature is slightly high, bacterial spot may be seen and application of mancozeb @ 2g/L will reduce the infection.

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



- Mealybug population and movement of ants may be noticed under the bark. Due to possibility of rains and build-up of relative humidity, plant wash with entomopathogenic fungi viz. *Metarhizium*, *Beauveria* and *Lecanicillium* may be useful for controlling mealybugs and ants.
- Do not spray any broad spectrum insecticides such as chlorpyrifos, dichlorvos, methomyl, profenophos, etc. for mealybug control. Higher humidity will favour development of natural enemies which will slowly kill mealybugs. In case chemical spray is required, prefer buprofezin 25 SC @ 1.25 ml per litre of water for plant wash.
- Caterpillar (*Spodoptera litura*) infestation may increase in most of the grape areas as humidity is increasing. Thrips incidence may be higher in vineyards where sub-cane process has not been completed. For the management of both caterpillars and thrips, emamectin benzoate 5 SG @ 0.22 g/litre or fipronil 80 WG @ 0.06 g/litre water may be given.
- Mite infestation may also be observed on older leaves in areas not experiencing good rainfall. In such cases, foliar application of sulphur 80 WDG @ 2.0 g/litre water may be given.
- Incidences of new species of stem borer (red colour larva) may be noticed under bark in Sangali, Solapur, Nashik, Pune, Bijapur grape areas. Remove the loose bark and give good plant wash mainly targeting cordons and main trunk with broad spectrum insecticide.



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).