

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 (21/09/2017) - Thursday (28/09/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	21-22	27-30	Nashik, Ojhar, Palkhed, Dindori, Vani Pimpalgaon Drizzling- Thu to Thu Kalwan, Devla Drizzling Tue & Wed Light Rain Thu & Sat Moderate rain- Fri Shirdi Drizzling Fri to Thu Light Rain Thu Loni Drizzling Thu & Sat to Thu Light Rain Fri Niphad Drizzling Thu Light Rain Thu & Sat Moderate rain- Fri Baswant, Satana Drizzling- Tue to Thu Light Rain - Thu to Sat	Partly Cloudy	03-19	59-81	93-99
Pune	21-22	27-31	Pune, Phursungi Narayangaon, Junnar Drizzling - Fri to Thu Light Rain - Thu Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati, - Drizzling Thu to Thu	Cloudy	02-09	56-69	97-100
Solapur	22- 23	28-32	Solapur, Nanaj, Kati, Atpadi Drizzling- Thu to Sun Light Rain - Mon to Thu Vairag Drizzling - Thu to Thu Good rain - Fri Osmanabad, Tuljapur Drizzling- Fri to Thu Moderate Rain - Thu Kasegaon, Barshi, Pangri, Pandharpur Drizzling - Thu to Thu Latur, Ausa Drizzling Fri to Thu Light Rain - Thu Sat to Thu	Partly Cloudy	03-20	55-79	91-94
Sangli	21 - 22	28-31	Sangli, Kavatha Mahankal, Palus, Vite, Drizzling- Thu to Sun Light Rain- Mon to Thu Valva Drizzling- Thu to Thu Miraj Drizzling- Thu to Mon Light Rain- Tue to Thu Tasgaon Drizzling- Thu to Sun Light Rain- Mon & Tue Shirguppi, Kagvad, Arag, Palsi, Shetfal Drizzling- Fri to Sun Light Rain- Thu, Mon, Wed & Thu Moderate Rain - Tue Khanapur Drizzling- Fri to Thu Light Rain- Thu	Partly Cloudy	04-16	52-73	98-100

Bijapur	21-22	29-31	Bijapur, Tikota, Telsang Drizzling - Thu to Sun Light Rain - Mon to Thu Chadchan Drizzling - Thu to Sun & Tue to Thu Light Rain - Mon	Partly to Mostly Cloudy	06-16	53-70	94-98
Hyderabad	22	28-31	Hyderabad Drizzling - Thu to Tue Light Rain - Wed & Thu Zahirabad, Medchal Drizzling - Thu, Thu	Partly Cloudy	00-09	59-77	90- 100

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: 158 days.

b) Expected growth stage of the crop: Post cane maturity resting stage

III. Nutrition and irrigation management (Dr. A.K. Upadhyay)

Pan evaporation: 3-5 mm

Water management

1. All the grape growing regions are forecasted to receive from drizzle to light rains. Generally, under wapsa (field capacity) condition of the soil, donot apply irrigation. In general, there will not be any need to provide irrigation in areas which have witnessed continuous rains since last 3-4 days.
2. Provide irrigation through drip @ 3000 litre/acre/day in case no rains are received. Observe the vine growth before irrigation water application.
3. During shoot growth stage (fruit pruning season), apply irrigation only if necessary and vines show cupping symptoms. Already most of the areas have received rains. For vineyards raised on heavy soils, there is no need to apply irrigation atleast for 3-4 days as the soil is saturated with water. In case, the vine leaves show cupping symptoms, apply irrigation through drip @ 5100- 8500 L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 2550 - 4250 L/ acre.

Nutrient management

1. Look for the sodicity problems. Soil, petiole and water reports will give information on extent of build up of sodicity in soil. Apply gypsum to the soil for removal of sodium from the soil exchange complex. In case of calcareous soils, use sulphur for similar purpose. Gypsum/sulphur should be properly mixed in soil. The soil should be moist. After approx. 20 days adequate should be provided to leach sodium from the soil.
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. The efficacy of sulphur is improved if FYM/ Compost are applied along with sulphur and mixed in the soil.
3. If fruit pruning is scheduled in next 15-20 days, test your field soil and irrigation water and plan nutrient management accordingly.
4. Apply FYM/ other organic sources including green manuring atleast 12-15 days before pruning. If possible mix 200 kg Single super phosphate in the FYM and apply in the soil especially in case of sodic soils. Application of organics improves the nutrient and water retention in the root zone and reduces nutrient losses from the profile.

September pruned vineyards (Fruit Pruning Season)

Shoot growth stage:

1. 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.
2. If sodicity problem is there, apply 10 kg Sulphate of potash per acre in 2 splits this week.

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

Nil.

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

1. Old vineyard:

As per the weather prediction, temperature and relative humidity in the atmosphere will be most ideal for the build-up of fungal diseases. This disease mainly downy mildew and anthracnose will appear on young shoots. Hence, removal of young shoots needs to be given top priority. Spray of Bourdeaux mixture on the canopy will also help to keep the disease under control.

Preparation of fruit pruning should also be done in the vineyard. Leaf removal atleast 15 days before the fruit pruning should be done. The period of leaf removal before fruit pruning will depend on how much leaf have already been fallen in the vineyards due to disease. If the leaf removal is done through use of ethephon, the vine should be put under stress atleast 5-6 days before the actual spray.

2. Grafting on rootstock:

The grafting in the vineyard should be completed at the earliest since, the condition required for successful graft (RH and temperature) will be available during this period, While performing the grafting, the care should be taken that the scion selected should be from completely matured shoots. At present the growers are facing the problem of early bud sprouts and drying of the same shoot. This is mainly because of use of semi matured or immature scion used for grafting. This type of shoots does not have enough stored food material and thus cannot supply the food material to the newly sprouted shoots. Before the callus formation the the food supply if exhausted, the new sprouts gets dried. Hence, while using the scion for grafting, first ensure that the scion used is completely matured. In the matured shoots, the pith will be of dark brown colour.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
158	High	Low	Low	Low bacterial leaf spot

As rains are predicted in all grape growing areas, it is advised to hold on to all pruning operations till the month end. At pre-pruning stage (before 7-8days) soil drench and foliar spray of *Trichoderma* sp and/or *Bacillus* sp may be given. The rains are predicted to be around 25 th September and downy mildew management practices needs to be done during this period. Application of CAA fungicides at this stage viz. Dimethomorph@1g/L+mancozeb 75WP@2g/L or Iprovalicarb+propineb @ 2.25g/L or Mandipropamid@ 0.8g/L or Dimethomorph +ametoctradin@0.8g/L or Cymoxanil +Mancozeb WP@2g/L may be done for controlling downy mildew.

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

Growth stage: Cane maturity and afterwards



- Caterpillar (*Spodoptera litura*) infestation may increase in most of the grape areas as humidity is increasing. For the management of caterpillars, 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 such cases, foliar application of sulphur 80 WDG @ 2.0 g/litre water may be given.
- 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.
- 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 insecticides, for example, lambda cyhalothrin 5 CS @ 2.5 ml/l.



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.