

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/04/2018)

I. Weather Data for the Prevailing Week

Thursday (16/08/2018) -- Thursday (23/08/2018)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	22	25-26	Nashik, Pimpalgaon Baswant, Ojhar, Dindori, Vani, Palkhed Moderate Rain- Thu, Fri, Mon & Wed Drizzling- Sat, Sun, Tue & Thu Loni, Shirdi, Good Rain- Thu & Fri Niphad, Kalwan, Devla, Satana Moderate Rain- Thu, Fri & Wed Drizzling- Sat to Tue & Thu	Cloudy	11-23	84-86	92-96
Pune	22-23	25-27	Pune, Phursungi, Narayangaon, Junnar Moderate Rain – Thu & Fri Light Rain– Mon to Thu Drizzling- Sat & Sun Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati Moderate Rain – Thu & Fri, Drizzling- Sat to Thu	Cloudy	9-25	79-83	93-94
Solapur	23	26-30	Solapur, Kati, Nanaj, Pandharpur Moderate Rain – Thu & Fri, Light Rain– Mon to Thu, Drizzling- Sat & Sun Barshi, Pangri, Vairag Moderate Rain – Thu & Fri, Drizzling- Sat to Thu Osmanabad, Tuljapur AUSA Kasegaon & Atpadi Moderate Rain – Thu & Fri, Light Rain– Wed, Drizzling- Sat to Tue and Thu Latur Good Rain- Thu, Drizzling- Fri to Thu	Cloudy	11-28	67-72	90-94
Sangli	22	25-27	Sangli, Miraj, Arag, Shetfal, Kagvad Light Rain–Thu, Fri, Mon & Tue, Drizzling- Sat & Sun, Tue & Thu	Cloudy	17-25	84-88	91-94

			Kavathe Mahankal, Palus, Valva, Tasgaon, Shirguppi, Palsi, Vite Light Rain–Thu, Fri & Wed Drizzling- Sat to Tue & Thu Light Rain–Thu, Fri & Wed, Khanapur Good Rain–Thu & Fri Light Rain– Wed, Drizzling- Sat to Tue & Thu				
Bijapur	22	25-29	Bijapur, Tikota, Telsang Light Rain–Thu, Drizzling- Fri to Thu Chadchan Light Rain–Thu, Fri, Mon To Thu, Drizzling- Sat & Sun	Cloudy	17-33	65-72	91-93
Hyderabad	23	26-29	Hyderabad, Medchal, Zahirabad Light Rain–Thu, Drizzling- Thu to Wed	Cloudy	11-29	70-77	91-95

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: 121 days

b) Expected growth stage of the crop: - Cane maturity and afterwards stage after foundation pruning

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

Expected pan evaporation: 1.5 to 4 mm

Amount of irrigation advised

1. All the grape growing regions are forecasted to receive from drizzle to light/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 irrigate the vineyard.
2. In general, there will not be any need to provide irrigation in areas which have witnessed continuous rains since last 3-4 days.
3. The vineyards are at Cane maturity and Fruit Development stage. Provide irrigation through drip @ 3500 - 4000 litre/ha/day in case no rains are received.
4. To leach out the salts from the rootzone, it is important to remove mulch/ plastic from the bunds, so that the salts can be washed out from the rootzone. Then the bunds can be mulched again after the monsoon season.

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

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 at least five doses to reduce the leaching losses of the potassium. Apply 15 kg SOP in two – three splits during this week.
2. After Cane maturity stage, fertilizer application is over. 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 irrigation should be provided to leach sodium from the soil.

3. 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.
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.
5. In case pruning is planned during September/ October, raise Sunnhemp or Dhaincha for green manuring purpose. For sodic soils, growing dhaincha will be beneficial. Further, test soil and irrigation water for planning for next season fertilizer schedule.

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

1. In this week rain is prevailing hence attention has to be given for drainage, otherwise, it may result into formation of aerial roots. Water stagnation in the vineyard has to be avoided.
2. Weeding may not be done during rainy days

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

This week should be considered better for grafting the variety. The selection of variety will depend on the objective (table, raisin and wine). At the time of grafting, the following conditions to be fulfilled.

- 1) the rootstocks plants should be in sap flow condition.
- 2) Preferably the rootstocks should be either softwood to semi hardwood.
- 3) The scion selected for grafting should be completely matured.
- 4) Before grafting the scion should be dipped in carbendazim solution for a period of 2 to 3 hours.
- 5) The exposed basal end of scion to be dipped in 15 to 20ppm 6-BA solution.
- 6) For proper graft success, the humidity in the atmospheres should be above 80%.
- 7) For proper sap flow of the rootstocks, irrigation to be applied 3 - 4 days before actual grafting. .

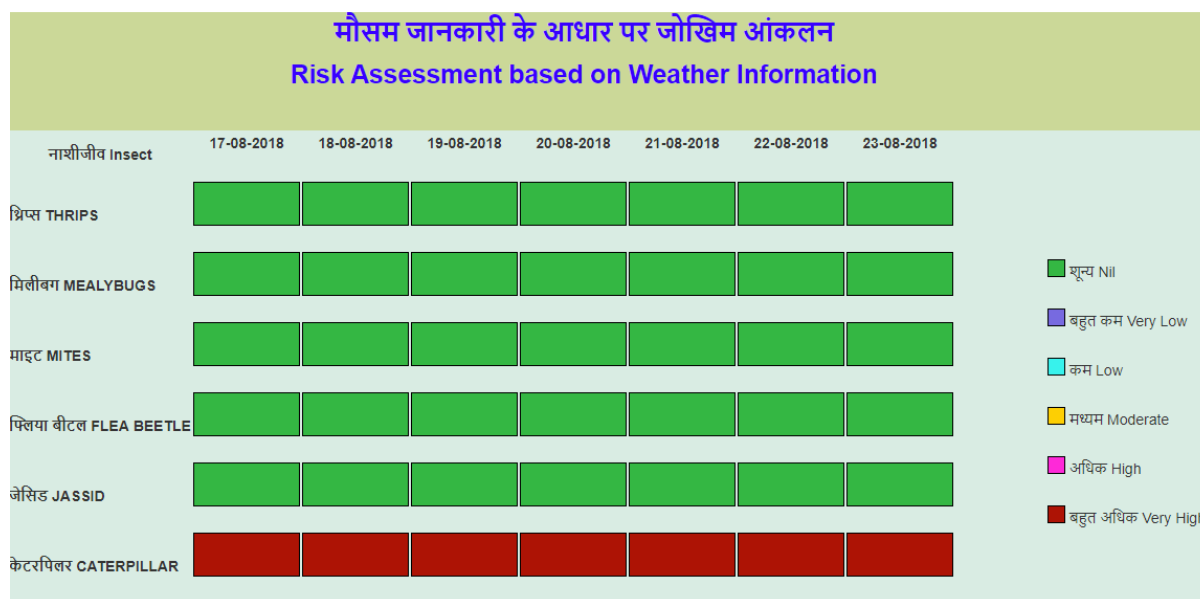
VII. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
121	Moderate	Moderate	High	Bacterial leaf spot, Rust

Wherever new shoots are appearing, pinching should be done to prevent anthracnose infection. If the disease is in stem, clipping has to be done and the adjacent healthy portion (2-3cm) of the infected region should be removed as well. An application of thiophenate methyl @ 1g/L + Mancozeb @ 2.5g/L in a tank mix will give a control of the established infection of anthracnose as well as rust. The above tank mix will also give a control against bacterial spot and if the bacterial spot is ignored, it might lead to defoliation. To control downy mildew, application of potassium salts of Phosphoric acid@4g/L+ Mancozeb @ 2.0g/L in a tank mix will give a good control of the disease. In places where continuous drizzling is reported application of copper hydroxide @2-3g/l is recommended. Biocontrol agents like *Trichoderma*

sp, *Bacillus subtilis* and *Ampelomyces quisqualis* may be applied along with sulphur but not with copper fungicides. 2-3 sprays of biocontrol agents may be given during this period when the RH is high and temperature is low. However, where copper fungicides are applied drenching of the biocontrol agents may be done to induce systemic resistance in plants.

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



- Spraying of emamectin benzoate 5 SG @ 0.22 gram per litre water or fipronil 80 WG @ 0.06 gram per litre water is effective to manage caterpillars.
- Remove excess shoot to manage thrips populations.
- Vineyards may have higher mealybug infestation as well. However, increase in relative humidity will favour build-up of natural enemies and natural biological control of mealybugs. Therefore, avoid spraying broad spectrum insecticides. Use of insecticides for mealybug control should be avoided. Entomogenous fungus such as *Metarhizium*, *Beauveria* and *Lecanicillium* can be used for plant wash at 15 days interval to reduce mealybug populations. If, insecticide application seems inevitable, the only buprofezin 25 SC @ 1.25 ml/L water may be used for management of mealybugs as this insecticide does not harm beneficial organisms in the vineyard.
- Mite infestation may be observed on old leaves at some places. Spraying of sulphur 80 WDG @ 2.0 gram per litre water is effective to manage mites.

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.