

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Pruning date-15/04/2016)

I. Weather Data for the Prevailing Week

Thursday (25/08/2016) - Thursday (01/09/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nashik	22-23	28-29	Thu- Fri Light Rain Palkhed, Vani, Satana, Chandwad, Yeola.	Cloudy	11-18	66-74	91-94
Pune	23	29	Fri – Sat Light Rain Narayangaon, Junnar, No Rain in Other Grape areas	Cloudy	11-23	66-69	91-94
Solapur	23-24	32-33	Sunday Onward Light Rain	Partly Cloudy	11-18	52-56	86-90
Sangli	22-23	29	Thu and Sun-Thu Light Rain Sangli, Miraj, Shirol, Shirguppi, Arag, Kagwad, Sun- Mon Light Rain and Tue- Wed Medium Rain Khanapur	Cloudy	08-24	63-66	92-97
Bijapur	22-23	30-32	Mon-Thu Light Rain Bijapur, Tikota, Telsang, Chadchan	Cloudy	18-23	52-66	81-92
Hyderabad	23-24	30-32	Saturday Onward Good Rain Hyderabad, Zahirabad, Medchal, Rainlaguda.	Cloudy	10-16	62-67	83-91

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:

b) Expected growth stage of the crop

90-140 days- Buildup of storage

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

Expected pan evaporation: 0 – 5 mm

All recommendations are per acre/hectare basis.

Amount of irrigation advised:

In general there will be no need to apply irrigation as the soils are already at field capacity (wapsa condition). Irrigate the vineyard only if the vines start showing moisture stress i.e. leaf cupping/ curling. Then, apply irrigation through drip @ 2800 litre/acre/day.

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

Through fertigation:

1. 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.
2. In case pruning is scheduled during October, green manuring with Sunnhemp / Dhaincha is advised. In sodic soils, dhaincha is preferred.
3. Remove mulch and loosen the soil for improving movement of water through the root zone to reduce salts accumulated in the root zone. Organic mulch can be mixed in the soil to improve the porosity of the soil.
4. If Fruit pruning is planned during September, go for soil and water testing for proper nutrient and water management.
5. 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. Application of organics improves the nutrient and water retention in the root zone and reduces nutrient losses from the profile.
6. 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.

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

As per the present growth stage application of growth regulators are not required.

VI. Any specific recommendation for canopy management (Dr. R.G. Somkuwar)

1. **Timely pruned vineyard:** Under the condition of light rains with high R. H. (80% and more), there will be new growth. It is advised to pinch the shoots regularly to avoid delay in cane maturity.
2. **Grafting on rootstock:** The present period is ideal for grafting since the temperature and R. H. required for graft success is available. Selection of scion should be taken from completely matured cane. The canes selected should be dipped in the carbendazim solution (1.5 g/lit) for about 2 – 3 hours. This will help to avoid the diseases.

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

The cloudy conditions and light rains will expose the vines to powdery mildew disease. Application of sulphur @ 1.5 – 2.0 g/L is recommended. A follow-up application of chitosan 10% @ 2ml/L should be done for better efficacy of the fungicides by preventing their wash off during the rains. Light rains might occur in Nashik and Sangli region during Sat-Sun. Application of mineral oil @ 2ml/L will also help in removal of water droplets from the leaf surface. Application of biocontrol agents like *Bacillus* sp @ 2g/L or *Trichoderma* sp @ 4g/L or *Ampelomyces* sp @ 4-5g/L are advised during this stage. No systemic fungicides should be applied at this stage. In areas where bacterial spot is observed application of mancozeb 75WP @ 2g/L may be done..

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

Risk levels of different insects

Thrips	Caterpillar	Mealybug	Jassids	Flea beetle	Mites
Low	High	Moderate to High	Low	Low	Moderate to High

- Due to prevalence of high relative humidity coupled with drizzling rains and cloudy conditions in most of the grape growing areas, the caterpillar (*Spodoptera litura*) infestation may continue. *Spodoptera litura* Nuclear Polyhedrosis Virus (SINPV) @ 250 LE/ha may be used for biological control of these caterpillars. Alternatively, emamectin benzoate 5 SG @ 0.22 g/liter water can be given.
- With high relative humidity, the activity of mealybug natural enemies such as predatory coccinellids and parasitoids will increase and help in reducing mealybug population. Avoid spraying broad spectrum insecticides to conserve these natural enemies. If ant population is noticed, application of entomogenous fungi, *Metarhizium anisopliae* @ 10⁶ cfu/ml can be given. The prevailing high humidity will help in establishing this entomogenous fungi and managing both ants and mealybugs. Buprofezin 25 SC @ 1.25 ml/L water may be used to manage mealybugs, if required.
- For the management of mites, sulphur 80 WDG @ 2.0 g/L water is effective.
- Excess shoot growth due to high humidity conditions may help to build up thrips population and reduce coverage during insecticide applications, therefore, excess shoot growth should be removed to reduce thrips incidence.

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.