मौसम पूर्वानुमान आधारित साप्ताहिक सलाह
Weather Forecast Based Weekly Advisory

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

I. Weather Data for the Prevailing Week

Thursday (04/08/2016) - Thursday (11/08/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nashik	22	25-26	**Thu-Thu Light Rain** Nasik **Thu and Mon -Thu** Dindori, Ojhar, Vani, Pimpalgaon Baswant, Palkhed **Thu-Thu Very Light Rain** Shirdi,Loni, Rahata, Satana, kalvan Devla, Chandvad, Niphad, Lasalgaon, Yeola	Cloudy	16-23	84-88	95-99
Pune	22-23	26	**Thu-Thu Light to Medium Rain** Pune, Phursungi, Narayangaon, Junnar, **In Other area's full week** **Drizzling to Very Light Rain**	Cloudy	14-24	81-84	93-95
Solapur	23	29-30	**Thu-Thu** **Very Light Rain** Solapur, Nanaj, Vairag, Barshi, Kasegaon, Pangri, Kati, Kari, Atpadi Tuljapur Latur, Ausa, Osmanabad Pandharpur	Partly Cloudy	18-29	63-69	89-91
Sangli	22	26-27	**Thu-Sat and Thu Very Light Rain** Sangli, Miraj, Shirguppi, Arag, Bedag, Kagwad, Shirol. **Drizzling in other area's**	Cloudy	14-31	74-81	91-97
Bijapur	22	27-29	**Thu-Thu Drizzling** Bijapur, Tikota, Telsang, Chadchan	Partly Cloudy	21-37	62-71	91-94
Hyderabad	22	27-29	**Thu- Thu Drizzling** Hyderabad, Zahirabad, Medchal, Rainlaguda.	Partly Cloudy	18-31	68-75	93-96

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. Nutrient requirement (Dr. A.K. Upadhyay)

Through fertigation:

1. Potassium needs to be applied through drip during this stage. If the soil is saturated with water, postpone application by few days till the soil comes to field capacity (wapsa). Then apply fertilizer through drip.
2. 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.
3. 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 pruning is scheduled during August, green manuring with Sunnhemp / Dhanicha is advised. In sodic soils, dhaincha is preferred.

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

No application of growth regulators is required during the ensuing week.

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

1. **Timely pruned vineyard**: Under the condition of light to medium rains with R. H. more than 80%, there will be new growth at faster rate. This will delay the cane maturity. Control of shoot growth by shoot pinching will help to control the growth. Spray of soluble grade potash (0:0:50) @ 4-5g/litre water2-3 times may also help to advance the cane maturity.
2. **Late pruned vineyard**: The late pruned vineyard will face the problem of shortage of sunlight required for effective fruit bud differentiation. Hence, repeated doses of phosphorous with minimum quantity through spray and drip along with recommended growth regulators (6-BA and uracil) will help to achieve fruitfulness. The growth may be arrested by reduction of irrigation (under no rainfall condition) and shoot pinching.
3. **Rootstock planted gardens**: Under the situation of weak and reduced growth of rootstock plants, shoot thinning retaining only three shoots will help to achieve shoot thickness required for grafting. Selective application of phosphatic and nitrogenous fertilizer is required at this stage.

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

With the light to medium drizzle prevailing at the present times, incidence of downy mildew may be observed. Potassium salt of phosphorous acid 2-3 g/L + mancozeb 2.0 g/L as tank mix is recommended to control the disease. When the rain stops around Friday, control of powdery mildew needs to be done and application of sulphur 80 WG @ 1.5 – 2.0 g/L is recommended. This is because cool and cloudy weather will cause the sporulation of powdery mildew pathogen.

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
Moderate	**Very High**	**Moderate**	**Low**	**Low**	**Moderate**

Take care of leaf eating caterpillar in your vineyards:

- The prevalence of high relative humidity coupled with drizzling rains and cloudy conditions in majority of the grape growing areas may increase the risk for infestation of leaf eating caterpillar (*Spodoptera litura*).
- *Spodoptera litura* Nuclear Polyhedrosis Virus (SlNPV) @ 250 LE/ha may be helful in controlling the caterpillars
- Need based spraying of relatively safer chemicals: Emamectin benzoate 5 SG @ 0.22 g/liter of water can effectively control the larvae of leaf eating insects

Other important considerations:

- The high relative humidity coupled with drizzling rains and cloudy conditions are congenial for population built up of natural enemies like predatory coccinellids and parasitoids that help to check the infestations of mealybug in vineyards. Hence, use of broad spectrum insecticides that adversely affect the NEs of insect pests should necessarily be avoided. Alternatively, use of entomogenous fungi, *Metarhizium anisopliae* @ 10^6 cfu/ml will be helpful. The prevailing high humidity will help in establishing this entomogenous fungi and managing infestations of both mealybugs and ants associated with them.
- For the management of mites if required, sulphur 80 WDG @ 2.0 g/L water is effective.
- **Remove excess shoot growth to check thrips population**: Excess shoot growth due to high humidity conditions may lead to build up thrips population and reduce coverage during insecticide applications

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.