WEATHER DATA FOR THE PREVAILING WEEK

(Assumption: Fruit Pruning date- 15/09/2019)

I. WEATHER DATA FOR THE PREVAILING WEEK

Thursday (19/3/2020) – Thursday (26/3/2020)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	18-23	34-38	**Devla** Wed- Drizzling.	Clear to Partly Cloudy	2-22	11-28	50-74
Pune	18-24	35-38	**No Rain**	Clear	1-20	14-30	42-69
Solapur	22-27	37-39	**Osmanabad, Tuljapur, Latur, Ausa** Wed- Drizzling.	Clear	5-16	13-25	41-52
Sangli	18-25	37-39	**Khanapur** Tue to Next Thu- Drizzling.	Clear	3-22	15-27	50-69
Bijapur	21-26	36-38	**No Rain**	Clear	5-19	13-25	41-57
Hyderabad	21-23	35-36	**Hyderabad, Zahirabad** Thu & Fri- Drizzling. **Medchal** Thu- Light Rain. Fri- Drizzling.	Clear to Partly Cloudy	3-13	27-40	70-92

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: 140+

b) Expected growth stage of the crop: Rest period

III) Nutrient and Irrigation Management (Dr. A K Upadhyay)

Water management

Expected pan evaporation: 7.0 to 8.5 mm

Amount of irrigation advised:

1. From ripening stage onwards till maturity, apply irrigation through drip @ 11,900 – 12,750 for Nasik, Pune and Hyderabad and 12,750 – 14,450 L/acre/day for Sangli, Solapur and Bijapur.
2. Flooding the vineyard is not advised as it will lead to wastage of water. Concentrate irrigation water application in the root zone only.
3. For early harvest, donot withhold water as this might lead to loose bunch, as the day temperature is high, thereby affecting the quality of produce. Slowly reduce the quantity of water, leading to sugar accumulation in berries.
4. The plots which have entered into rest period provide only need based irrigation to protect the existing leaves from drying and also contribute towards increasing the reserves of the vines through photosynthetic activity. The quantum of irrigation water applied should be approx. 4000 – 5000 L/ acre, once in a week. Care should be taken to reduce/stop the water in case new growth is observed on the shoot.

IV. Soil and Nutrient management

Ripening to Harvest stage:

1. Apply Sulphate of potash or 0-0-50 @ 10 kg/ acre in 2 splits for this week. Total potassium application (SOP) should be approx. 60 kg/acre during this stage. Follow this up with Magnesium sulphate @ 10 kg/acre in two splits. Spray Magnesium sulphate in calcareous soil.

Rest period:

1. Apply 10 kg Urea, 25 kg SSP and 10 kg SOP during rest period for a period of 15-20 days.

Foundation pruning:

1. If planning for foundation pruning in next 10- 15 days, it is advised to get soil and water analysed for planning nutrient and water application schedule for foundation pruning season.
2. 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. 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. Mixing of sulphur in organics further improves its efficacy.

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

NIL

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

The temperature in the grape growing areas is increasing at faster rate. The maximum temperature is above 34°C. This is sometimes beneficial while it may create the problems. Under this condition, the management in different stages is as follows.

1) **Early foundation pruning**: In this vineyards, trench opening is being done before foundation pruning. A trench of about 3 to 4 inch depth is opened to fill the FYM and other recommended nutrients. During this high temperature if the trench is kept open for longer time, it will damage the cells of the roots. Care should be taken that more than 30% roots are not cut during the process of trench opening. The root exposure to sun also be avoided. This will lead to dead arm of the cordons.
2) **Vineyards after re-cut**: In these vineyards, under high temperature, the newly sprouted shoot will grow at faster rate. This will demand more water for proper vegetative growth. In many of the grape vineyards, the growers tend to irrigate with higher quantity of irrigation water. This creates the relative humidity thereby increasing the chances of thrips incidence as well as potash deficiency. Under such situation, the growers are advised to spray insecticide for the control of thrips and also apply potash through spray.
3) **Rootstock planting**: The rootstock planted garden will have additional water requirement as the root system is not fully developed. Under such condition, the mulches can be used. This will prevent the water loss and keep the root zone moist.

VI. Disease management (Dr. Sujoy Saha)

Days after pruning	**Risk of diseases**			
	Downy mildew	**Powdery mildew**	**Anthracnose**	**Others (specify)**
140+	Nil	Nil	Nil	Nil

No chemical should be applied at this stage. For early pruning areas, Trichoderma may be applied via drip irrigation.

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

Days after pruning	**Risk of pests**			
	Mealybug	Mite	Thrips/leafhopper	Caterpillar
>150	High	High	Low	Low to Moderate

- Both mite and mealybug infestation may increase during next week.

- Spot plant wash with trisiloxane polyether surfactant @ 0.3 ml per litre water with 10-12 litre water per plant to remove mealybug and honeydew from plant and bunches in the field.
- Regular water sprays @ 1000 litres per acre to wash leaves to remove dust and mite webbings. Sulphur 80 WDG @ 1.5-2.0 g/L or abamectin 1.9 EC @ 0.75 ml per litre (PHI 30 days) or bifenazate 22.5 SC @ 0.5 ml per litre (PHI 30 days) water may be applied if mite infestation is observed.
- Hand pick and kill caterpillars if found in bunches.
- Thrips may cause serious damage in new vineyards on new growth after the recut. Emamectin benzoate 5 SG @ 0.22 gram per litre or fipronil 80 WG @ 0.06 g per litre or cyantraniliprole 10 OD @ 0.7 ml per litre water are effective for thrips management.
- If the grape berries get damaged due to berry cracking, mechanical damage, micro-cracks, holes made by other insects, etc. at the time of ripening, they may get infested by scavenging fruit flies. All the damaged berries should be removed from the grape bunches. These berries should be destroyed by burying them minimum two feet deep in the ground away from the vineyards. It will reduce the fruit fly population in the vineyard. Ripe banana can act as a good attractant for these scavenging fruit flies. Therefore, banana traps can be made and installed at the rate 5 per acre. To make a banana trap, take a container and put a ripe banana inside it. Pour 2-3 drops of spinosad 45 SC or cyantraniliprole 10 OD on the banana. Cover the mouth of the container with inverted paper-cone keeping a small hole at the bottom for fruit flies to enter. The berry cracking of grapes should be managed by following suitable viticultural practices.

Fruit fly adults on grapes