**WEATHER DATA FOR THE PREVAILING WEEK**

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

## I. WEATHER DATA FOR THE PREVAILING WEEK

**Thursday (27/2/2020) – Thursday (5/3/2020)**

| Location | Temperature (°C) | | Possibility of Rain | Cloud Cover | Wind Speed (Km/hr) Min-Max | R H% | |
|---|---|---|---|---|---|---|---|
| | Min | Max | | | | Min | Max |
| **Nashik** | 16-18 | 32-34 | **No Rain.** | Clear | 0-19 | 16-24 | 48-85 |
| **Pune** | 16-20 | 32-35 | **No Rain.** | Clear to Partly Cloudy | 0-17 | 17-27 | 50-80 |
| **Solapur** | 19-23 | 35-36 | **Vairag, Osmanabad, Tuljapur, Latur, Ausa, Barsi, Pangri** Sat- Drizzling. | Clear | 3-21 | 17-26 | 52-61 |
| **Sangli** | 17-22 | 34-35 | **Khanapur** Sat & Sun- Drizzling. | Clear | 1-18 | 19-26 | 52-80 |
| **Bijapur** | 19-23 | 33-36 | **No Rain.** | Clear | 5-20 | 18-27 | 55-69 |
| **Hyderabad** | 18-22 | 32-33 | **No Rain.** | Clear to Partly Cloudy | 2-13 | 30-43 | 78-100 |

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: 140+**

**b) Expected growth stage of the crop: Berry softening/harvesting**

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

**Water management**

Expected pan evaporation: 6.5 to 8.0 mm

1. From Veraison stage onwards till maturity, apply irrigation through drip @ 11,050 – 11,900 L/ acre/ day for Nasik, Pune and Hyderabad region and 11,900 – 13,600 L/acre/day for Sangli, Solapur and Bijapur region.
2. Remember that if the soil is at field capacity (wapsa) then donot irrigate.

3. Flooding the vineyard is not advised as it will lead to wastage of water. Concentrate irrigation water application in the root zone only.
4. As the temperature is rising, donot withhold water during ripening to harvest stage as this will lead to loose bunch, thereby affecting the quality of produce.

**Soil and Nutrient management**

**Ripening to Harvest stage**:

1. Apply Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks. 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.

**Rest period:**

**1.** Apply 10kg Urea, 10 kg DAP and 10 kg Sulphate of Potash/ acre in two splits every 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.

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

**NIL**

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

During the last week there was increase in temperature. This condition is sometimes helping the vine while in other case it is becoming the problem. These conditions are as below

1) Increase in temperature and also increase in irrigation water is not matching the requirements and availability of either nutrients or irrigation thereby creating the physiological disturbance in the vine. Hence, under such condition, the irrigation should be provided based on PAN reading. If possible, irrigate the vines during morning or evening. Use of mulch can also help in minimizing the losses.

2) Sudden drop in temperature and increase in relative humidity may result into berry cracking. To avoid this problem, based on the weather updates use irrigation efficiently. This condition generally experienced during increased humidity. Spray of trichoderma 2 to 3 times will help in controlling further damage.

3) This period is ideal for planting of rootstock. With the increase in temperature, the setting of plants in the soil will be difficult. Hence, planting operation may be completed at the earliest.

**VI. Disease management (Dr. Sujoy Saha)**

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

An application of *Ampelomyces quisqualis* @5-6g/L or *Bacillus subtilis* @2g/L or Trichoderma formulations @ 4-5g/L may be given to the bunches for control powdery mildew. No chemical should be applied at this stage.

## 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.
- 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 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