WEATHER DATA FOR THE PREVAILING WEEK

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

I. WEATHER DATA FOR THE PREVAILING WEEK

Thursday (2/1/2020) – Thursday (9/1/2020)

Location	**Temperature (°C)**		**Possibility of Rain**	**Cloud Cover**	**Wind Speed (Km/hr) Min-Max**	**R H%**	
	Min	**Max**				**Min**	**Max**
Nashik	11-16	27-30	**No Rain.**	Clear	02-19	31-40	68-96
Pune	13-17	28-31	**Pune, Phursungi, Narayangaon, Junnar** Next Thu- Drizzling.	Clear	0-17	32-41	73-90
Solapur	17-20	30-32	**Solapur, Nanaj, Vairag, Kati** Thu- Light Rain. Tue- Drizzling. **Osmanabad, Tuljapur, Latur, Ausa** Thu- Light Rain. Tue & Wed- Drizzling. **Pandharpur, Pangri, Barsi** Thu & Tue- Drizzling.	Clear to Partly Cloudy	05-18	30-44	67-88
Sangli	15-19	30-32	**Shetfal** Tue- Drizzling. **Khanapur** Thu- Moderate Rain. Tue & Wed- Drizzling.	Clear	01-19	29-42	75-89
Bijapur	17-19	30-31	**Bijapur, Tikota, Telsang** Thu- Drizzling. **Chadchan** Thu, Tue- Drizzling.	Clear to Partly Cloudy	05-19	25-44	71-89
Hyderabad	16-20	27-29	**Hyderabad, Medchal,** Thu, Fri & Tue to Next Thu- Drizzling. **Zahirabad** Thu & Fri- Light Rain. Tue to Next Thu- Drizzling.	Clear to Partly Cloudy	04-15	59-76	85-100

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: 109

b) Expected growth stage of the crop: Berry softening

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

Expected pan evaporation: 3-5 mm

Amount of irrigation advised:

1. Possibility of drizzling is there in some places. Withhold irrigation if soil is in waapsa condition.
2. From Flowering to setting stage, apply irrigation through drip @ 1,500- 3,000 L/ acre/ day.
3. From Berry development stage onwards till maturity, apply irrigation through drip @ 5,100-7,600 L/ acre/ day for Nasik and Pune region and from 7,600 – 8,500 for Sangli, Solapur, Hyderabad and Bijapur region. Remember that if the soil is at field capacity (wapsa) then donot irrigate.
4. Practice mulching to keep the bunds moistened. This will reduce the salinity build up in the root zone due to evaporation of the moisture from the surface of the bund.
5. Flooding the vineyard is not advised as it will lead to wastage of water. Concentrate in the root zone only.

IV. Soil and Nutrient management

Flowering to setting stage:

1. Apply 3-4 kg Phosphoric acid in two to three splits this week. Remember that the pH of the irrigation water should be near 6.0.
2. Go for petiole sampling at Full bloom stage (2/3rd Cap fall stage). The petiole sampled should be opposite the bunch.

Berry Development stage:

1. After Berry setting, continue initially with Phosphoric acid application @ 5 kg in two splits this week till 8 mm berry size.
2. If the berry size is from 2-4mm, spray calcium @ 2g Calcium Chloride or 0.5 g Ca chelate or 0.75g Calcium Essence per litre. Target sprays immediately after GA application (preferably next day) for better absorption.
3. If the berry size is from 5-8mm, spray calcium & 2g Calcium Chloride or 0.5 g Ca chelate or 0.75g Calcium Essence per litre. Target sprays immediately after GA application (preferably next day) for better absorption.
4. In the calcareous soil, spray magnesium sulphate @ 3g/L on the vines followed by fertigation of magnesium sulphate @ 10kg/acre from setting till 6-8 mm berry stage.
5. After 8-10 mm berry size, start application of nitrogen in the form of ammonium sulphate @ 25kg /acre in 4 splits in calcareous soil and as urea @ 15 kg/acre in other soils in 3 splits. Follow this up with Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks.

Ripening to Harvest stage:

1. Apply Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for next two weeks. Follow this up with Magnesium sulphate @ 10 kg/acre in two splits. Spray Magnesium sulphate in calcareous soil.

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

NA

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

In the grape vineyard two conditions are observed. Under first condition cloudy weather and increase in the relative humidity and mild climate will be result increase in the incidence of powdery mildew infestation. The bunches under dense canopy will be more affected since the fungicide spray coverage is not achieved under such situation. Maintaining the open canopy should be first priority considering the disease control this will be help proper coverage of fungicide spray.

In the condition of clear weather vineyard with low night temperature will be experience reduction in the low temperature will hamper physiological development of grapevine. The minimum temperature below 10° C will convert green pigments into pink berry formation which is a physiological disorder and so far no other remedies than the covering the bunches with newspaper is advised. In this condition covering of bunches with newspaper before or at time of veraison or one week before initiation of veraison stage should be helpful in reducing pink berry symptoms in vineyard. However, before the bunch covering ensure that the bunches are free from mealy bug and powdery mildew infection. Take appropriate measures to control this pest and diseases before covering the bunches.

Even under low temperature condition root activity will be slow and use of 2-3 thick mulch on the bund will help to increase the temperature in the root zone as well as will also help to initiate new feeder roots required for bunch development.

VI. Disease management (Dr. Sujoy Saha)

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

Application of Hexaconazole @1ml/L or Difenoconazole@ 0.5ml/L or tetraconazole @ 0.75 ml /L or Metrafenone 50% SC @0.25ml/L should be applied if the crop is less than 60 days old for the control

of powdery mildew. If the crop is more than 60 days, application of sulphur @2g/l which will take care of powdery mildew. Regular application of *Ampelomyces quisqualis* should be done @5-6g/L at regular intervals for control of powdery mildew.

VII. Insect and Mite Pest Management (Dr. D.S. Yadav)

- Bunch-weber may be seen infesting bunches at some places. It is a minor pest so far. The most effective way to control them is to collect and kill them by hand as insecticides may not come into contact with it. The caterpillars on leaves are also needs to be killed as they can go inside the bunch later on. Spraying of emamectin benzoate 5 SG @ 0.22 gram per litre water (pre harvest interval 25 days) at night is effective to manage them.
- 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 (PHI 65 days) water may be used for management of mealybugs as this insecticide does not harm beneficial organisms in the vineyard.
- Sulphur 80 WDG @ 1.5-2.0 g/L or Abamectin 1.9 EC @ 0.75 ml/L (PHI 25 days) or Bifenazate 22.6 SC @ 0.5 ml/L (PHI 25 days) water may be applied if mite infestation is observed.