WEATHER DATA FOR THE PREVAILING WEEK

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

I. WEATHER DATA FOR THE PREVAILING WEEK

Thursday (19/12/2019) – Thursday (26/12/2019)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	14-18	28-30	**Shirdi, Loni** Sun to Tue- Drizzling. **Niphad, Devla, Kalvan** Sun & Mon- Drizzling, Tue- Light Rain.	Clear to Partly Cloudy	01-13	33-39	80-85
Pune	16-19	30-31	**Pune, Phursungi** Sun to Tue- Drizzling. **Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati** Sun & Tue- Light Rain. Mon & Wed- Drizzling. **Narayangaon, Junnar** Sun- Drizzling.	Clear to Partly Cloudy	01-13	40-43	76-84
Solapur	18-21	31-32	**Solapur, Nanaj, Kati, Pandharpur, Kasegaon** Tue- Light Rain. Wed & Next Thu- Drizzling. **Vairag, Barsi, Pangri** Sun & Tue- Light Rain. Wed- Drizzling. **Osmanabad, Tuljapur, Latur, Ausa** Tue & Wed- Drizzling. **Atpadi** Sun & Tue- Light Rain. Mon & Wed- Drizzling.	Clear to Partly Cloudy	07-18	38-40	66-76
Sangli	17-20	31-32	**Sangli, Miraj, Arag, Kagvad, Shirguppi** Sun to Tue & Next Thu- Drizzling. Wed- Light Rain. **Tasgaon, Palus, Valva, Kavtha Mahankal, Palsi, Vite** Sun & Tue- Light Rain. Mon & Wed- Drizzling. **Shetfal** Tue- Light Rain. Wed & Next Thu- Drizzling.	Clear to Partly Cloudy	02-17	37-46	75-81

			Khanapur Tue- Drizzling.				
Bijapur	18-22	31-32	**Bijapur, Tikota, Telsang** Tue & Next Thu- Drizzling. Wed- Light Rain. **Chadchan** Tue- Light Rain. Wed & Next Thu- Drizzling.	Clear to Partly Cloudy	06-18	35-40	67-81
Hyderabad	16-19	29-31	**Hyderabad, Medchal** Next Thu - Drizzling. **Zahirabad** Wed & Next Thu - Drizzling	Clear to Partly Cloudy	03-12	48-55	88-96

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: 95

b) Expected growth stage of the crop: Berry development stage after October pruning

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

Expected pan evaporation: 3.5-4 mm

Amount of irrigation advised :

1. During Flowering to setting stage, apply irrigation through drip @ 2,500 to 3,400L/ acre/ day.
2. During Berry development stage, apply irrigation through drip @ @ 5,950- 6,800L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 2,500 – 3,400 L/ acre. Still if you are not able to control the vigour, stop irrigation till such time growth is controlled.
3. 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.

IV. Soil and Nutrient management

1. Inflorescence necrosis could be a issue in dense canopy. Remove side shoots and reduce canopy to allow penetration of the sunlight for proper aeration. Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of kooj (inflorescence necrosis).
2. Donot apply any nitrogen based fertilizer just before Flowering to Setting stage to avoid problems of kooj (inflorescence necrosis).
3. If SOP not applied, then apply 15 kg SOP and follow it up with SOP spray for building up the potassium levels in the vines. This will be especially beneficial during low temperature and rainy conditions.

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. After berry setting till 8mm berry size, spray calcium & 2g Calcium Chloride or 0.5 g Ca chelate per litre. Target sprays immediately after GA application (preferably next day) for better absorption.
3. 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.
4. 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.

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

NA

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

Bunch thinning and berry thinning to be considered as a priority work in late pruned vineyard. Since the sugar development and increased berry size are considered as better grape quality which depends on temperature during harvest time (March), it is required to retain appropriate bunches and berries in a bunch. In Thompson seedless, 100-110 berries in a bunch while one bunch for an area of 1.5 sq.ft is generally followed. This

operation should be done immediately after berry setting. In the same vineyard, powdery mildew incidence may become problem. To reduce the chances of disease spread, open canopy can be the priority. In grafted vines application of potash (0:0:50 @ 3-4g/lit water) through spray while SOP@20-25 kg/acre should be applied through soil.

Spraying of Bordeaux mixture@1% in these plot will help to achieve cane maturity and control of further vegetative growth.

VI. Disease management (Dr. Sujoy Saha)

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
95	Low	Low to moderate	Nil	Nil

As there is possibility of light drizzle in some areas, application of potassium salt of phosphoric acid @4g/l + mancozeb @2g/l may be done, especially in areas where the crop is less than 60 days old. This may be done if foliar symptoms of downy mildew are present or if there is history of downy mildew in the orchard. If symptoms are present in terminal leaves roguing may be done. If the crop is more than 60 days, application of sulphur @2g/l+chitosan @2ml/l as a tank mix may be given which will take care of powdery mildew and untimely berry cracking if any, respectively. Chitosan will also prevent downy mildew attack.After application of sulphur, if the crop is in advanced stage(more than 90 days), application of calcium nitrate/chloride @1-2g/l may be done. Calcium will further strength the wall and prevent berry cracking. Just before veraison stage, sulphur @ 2g/l + calcium chloride @1-2g/l may be applied followed by chitosan @2g/l.

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

- Caterpillars have started damaging bunches in most of the grape areas where humidity is high. The most effective way to control them is to collect and kill them by hand as insecticides may not reach inside the bunch. 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 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 water may be applied if mite infestation is observed.