

## WEATHER DATA FOR THE PREVAILING WEEK

(Assumption: Foundation Pruning date- 15/04/2019)

### I. WEATHER DATA FOR THE PREVAILING WEEK

**Thursday (03/10/2019) – Thursday (10/10/2019)**

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
<b>Nashik</b>	21	30-31	<b>Nashik, Ojhar, Pimpalgaon Baswant, Dindori, Vani</b> Thu & Next Thu- Moderate rain, Sat- Good rain, Fri & Sun to Wed- Light rain.  <b>Shirdi, Loni</b> Thu & Fri Drizzling, Sat- Sun, Tue & Next Thu- Good rain, Mon & Wed Moderate rain  <b>Palkhed, Niphad, Kalwan, Devla, Satana</b> Thu-Fri, Mon, Wed- Moderate rain, Sat & Tue- Light rain, Sun & Next Thu- Good rain.	Partly to Mostly cloudy	00-14	56-61	95-99
<b>Pune</b>	21-22	31	<b>Pune, Phursungi</b> Thu, Mon - Next Thu Moderate rain,  Fri - Sat Good rain, Sun- Light rain  <b>Narayangaon, Junnar</b> Thu, Sun-Tue Light rain, Fri –Sat Good rain, Wed - Next Thu Moderate rain  <b>Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati</b> Thu, Sun–Tue Light rain, Fri –	Mostly cloudy	00-12	56-62	93-96

			Sat Drizzling , Wed - Next Thu Good rain.				
<b>Solapur</b>	23	30-32	<p><b>Solapur</b> Thu &amp; Sun- Light rain, Fri-Sat, Mon Good rain, Tue –Wed Moderate rain, Next Thu- Drizzling</p> <p><b>Nanaj, Vairag, Kati, Barshi, Pangri, Osmanabad, Tuljapur</b> Thu &amp; Sun- Drizzling, Fri-Sat,Tue- Good rain, Mon, Wed - Next Thu- Moderate rain.</p> <p><b>Latur, Ausa</b> Thu- Good rain, Fri - Next Thu- Moderate rain</p> <p><b>Pandharpur, Kasegaon</b> Thu – Wed Moderate rain, Next Thu- Drizzling</p> <p><b>Atpadi</b> Thu, Sat-Sun &amp; Next Thu- Moderate rain, Fri- Drizzling, Mon –Wed Moderate to Good rain.</p>	Partly cloudy	00-10	58-67	90-95
<b>Sangli</b>	21-22	30-31	<p><b>Sangli, Miraj, Shirguppi, Kagwad, Arag,Tasgaon, Palus, Valva , Kavthe Mahankal, Vita, Palsi, Shetfal</b> Thu to Next Thu Moderate to Good Rain</p> <p><b>Khanapur</b> Sat-Sun &amp; Tue –Next Thu Moderate Rain</p>	Partly to Mostly cloudy	00-10	61-67	94-97
<b>Bijapur</b>	21-22	29-30	<p><b>Bijapur, Tikota, Telsang, Chadchan</b></p> <p>Thu to Next Thu Moderate to Good Rain</p>	Partly to Mostly cloudy	00-10	62-70	93-96

<b>Hyderabad</b>	22	29-30	<b>Hyderabad, Medchal, Zahirabad</b> Thu to Next Thu Moderate to Good Rain	Partly to Mostly cloudy	00-08	73-76	97-98
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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: 170**

### **b) Expected growth stage of the crop: - Cane maturity and afterwards**

Expected pan evaporation: 3-5 mm

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

Expected pan evaporation: Nil - 5 mm

### **Amount of irrigation advised:**

1. Grape growing areas are likely to receive from drizzling to good rains. The irrigation water application should be based upon the growth of the vines. In case rain exceeds 5 mm on a given day soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
2. Most of the vineyards have already crossed cane maturity stage. The irrigation water application should be such as to avoid new shoot growth as this may lead to development of disease and pests. Emphasis should be to maintain existing leaf in healthy condition and avoid leaf fall till it is desired.
3. In areas of Solapur, Sangli and Bijapur the ground water used for irrigation contains more salt and less and poor quality irrigation water was used during Foundation pruning season, remove the mulch and allow the bund/ rootzone to be fully wet with water received from rains for leaching of salts for subsequent fruit pruning.
4. In areas of Solapur, Sangli and Bijapur where less rainfall was received, poor quality water was used and the quantity of available water is less, it is advised to flood the rootzone(only) with water to leach out the salts and wet the entire soil depth before pruning and then cover with mulch. Thereafter irrigate as per availability of water.

### **Nutrient management:**

1. Due to continuous rains earlier and also improper potassium management, the canes may not be mature. It is advised to spray SOP @ 5g/L twice followed by 15-20 kg SOP/acre through drip in two splits.
2. Remove mulch applied during Foundation pruning and loosen the soil for improving movement of water through the root zone to reduce salts accumulated in the root zone. Organic mulch can be mixed in the soil to improve the porosity of the soil.

### **Pre-pruning operations – Fruit pruning season:**

1. In many of the grape growing areas in Nasik, Sangli and other areas, continuous spells of rains were received, the soils are already saturated. This has affected the rooting activity. Due to prolonged saturation, the roots may have started decaying. **Donot disturb the soil in the root zone even if pruning is being taken up. Wait for the soil to come to the wapsa condition before any soil related intervention has to be done.**
2. In case pruning is planned during October, raise Sunnhemp or Dhaincha for green manuring purpose.
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. The application should be alongwith FYM/compost etc. They should be mixed in the soil and not left on the top.
4. In case in calcareous soils, if SSP is applied as basal dose, mix with FYM/compost etc. to avoid phosphorus fixation.
5. Test the soil and irrigation water, to plan for nutrient and water management during fruit pruning season.

#### **Fruit pruning season:**

1. In case organic fertilizers are applied, check the C:N ratio. Lower the C:N ratio more the nitrogen release, hence possibility of enhanced growth. Control nitrogen application based upon growth of vine.
2. Based upon the soil test value, during shoot growth stage apply urea @ 15kg / acre this week in two splits. If the soil is calcareous, instead of urea apply ammonium sulphate @ 25 kg/ acre in three splits this week. Depending upon the crop vigour, regulate nitrogen application.
3. If sodicity problem is there, apply 10 kg Sulphate of potash per acre in 2 splits this week.
4. Until and unless leaves are fully developed donot go for any foliar application of nutrients. It will lead to wastage of spray.
5. The quantity of nutrients to be applied through foliar, depends upon canopy size.
6. If the crop is between 5 leaf to prebloom stage, apply Zinc sulphate and Ferrous sulphate @ 15 kg/ acre based upon soil test value. Boron application should be carried out only if soil test value indicates low levels and the irrigation water does not contain boron. If during foundation puning, the petiole test stated that boron was deficient then apply boron @ 1.5 kg to 5 kg depending upon the soil test value. Apply one kg boron at a time.
7. Apply 10 kg Magnesium sulphate per acre if the crop is between 5 leaf to prebloom stage.
8. If soils are calcareous, spray Sulphate of potash and Magnesium sulphate @ 2-3g/L depending upon leaf age during prebloom stage.

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

**Nil**

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

##### **Problems of cane maturity in established vineyard:**

Majority of the grape growing region received excess and prolonged rains during the last week. This has resulted in emergence of excess vegetative growth and delayed cane maturity. To overcome the problem, following measures are suggested.

- a) Shoot pinching at proper interval so as to control the vigour.
- b) Removal of side shoots so that all shoots will receive sunlight and also reduce the microclimate.
- c) Control the irrigation to the vine. This will help to advance cane maturity.
- d) Apply potash through spray (@3-4g/L water) and also through soil as basal dose (@1.5 to 2.0kg/acre). Repeat the doses at least twice.

Due to continuous rains, there was new shoot emergence. The incidence of anthracnose disease was a major problem on these shoots. Under severe condition, the infection may reach to newly emerged bunch. Hence, the removal of new shoots and taking away from the field should be considered a priority. Application of Bordeaux mixture @ 1% can also help to control the problem and advancing the cane maturity.

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

In early pruned areas, anthracnose incidence may occur. In Sinnar, Satana area where early pruning has been taken, application of thiophenate methyl @ 1 gram per litre should be done. Application of *Trichoderma* spp. As foliar spray or through drip should be continued. One preventive application of Mancozeb @ 2.5 gram per litre should be given against downy mildew disease.

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

Days after pruning	Risk of pests				
	Mealybug	Mite	Thrips	Caterpillar	Flea beetle
Cane maturity and afterwards	Low to moderate	Moderate	Low to Moderate	High	High

- Preventive plant wash, on stem and cordons, of biocontrol agents such as *Verticillium*, *Metarhizium*, *Beauveria* may be given for caterpillar and mealybug management.
- In case of thrips or caterpillar infestation, application of fipronil 80 WG @ 0.0625 g per litre or emamectin benzoate 5 SG @ 0.22 g per litre water is effective.
- Mite infestation may start appearing, therefore, monitor the vineyards carefully. If mite infestation is observed, sulphur 80 WDG @ 1.5-2.0 gram per litre or abamectin 1.9 EC @ 0.75 ml/l water is effective.
- For the management of flea beetle, imidacloprid 17.8 SL @ 0.4 ml/L or lambda cyhalothrin 4.9 C @ 0.5 ml/L water may be used.