# WEATHER DATA FOR THE PREVAILING WEEK

**Date of Fruit Pruning: 28/09/2020**

**Wednesday (27/01/2021)–Wednesday (03/02/2021)**

| **Location** | **Temperature (°C)** | | **Possibility of Rain** | **Cloud Cover** | **Wind Speed (Km/hr) Min-Max** | **R H%** | |
|---|---|---|---|---|---|---|---|
| | **Min** | **Max** | | | | **Min** | **Max** |
| Nashik | 14-19 | 29-31 | Nashik, Ozar, Palkhed, Dindori, Devla, Vani, Loni, Kalwan, Pimpalgaon Baswant, Niphad, Shirdi – No Rain. | Clear | 0-15 | 16-24 | 34-41 |
| Pune | 19-21 | 28-32 | Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Narayangaon, Supa, Junnar, Yavat, Patas, Baramati – No Rain. | Clear to Partly Cloudy | 0-15 | 19-23 | 34-42 |
| Solapur | 18-20 | 30-33 | Solapur, Vairag, Nannaj, Kati, Pangri, Osmanabad, Pandharpur, Barshi, Kasegaon, Atpadi, Latur, Ausa Tuljapur – No Rain. | Clear to Partly Cloudy | 3-18 | 17-28 | 38-71 |
| Sangli | 15-17 | 31-33 | Sangli, Miraj, Kagvad, Palus, Tasgaon, Shetfal, Khanapur, Shirguppi, Vita, Arag, Walva, Palsi Kawthe Mahakal -No Rain. | Clear | 0-17 | 19-26 | 43-52 |
| Vijayapura | 14-17 | 28-32 | Vijayapura, Tikota, Telsang, Chadchan – No Rain. | Clear | 4-20 | 18-24 | 37-63 |
| Hyderabad | 14-17 | 25-30 | Hyderabad, Medchal, Zahirabad – No Rain. | Clear to Partly Cloudy | 3-13 | 29-35 | 60-83 |

**Note: Above weather information is summary of weather forecasting given in following websites**

https://www.wunderground.com/?cm_ven=cgi

https://imdagrimet.gov.in/weatherdata/BlockWindow.php

https://www.accuweather.com/

**ICAR-National Research Centre for Grapes does not claim accuracy of it.**

## II. Water management (Dr. A.K. Upadhyay)

a) **Days after fruit pruning:** 121
b) **Pan evaporation**: 4-5 mm

**Amount of irrigation advised)**

1. In case the soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
2. During Berry development stage, apply irrigation through drip @ 6800 - 8500L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 3400 - 4250 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.
4. Flooding should be avoided.

**Soil and Nutrient management**

**Berry Development stage:**

1. 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.
2. Foliar spray of sulphate of potash @ 3g/acre at 8-10mm berry size.
3. 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.
4. If soil is calcareous, then apply zinc sulphate and ferrous sulphate @ 5 kg/acre at 65-70 days after pruning.
5. Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of berry cracking.

**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.
2. Spray Magnesium sulphate and potassium sulphate @ 3g/L in calcareous soil.
3. Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of berry cracking.

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

Nil

## IV. Canopy management (Dr. R.G. Somkuwar)

During this period, following practices to be followed
1) The increase in temperature in the vineyard will lead to increase in water requirements.
2) The grapes at near veraison will show the symptoms of cluster drying.
3) In many vineyards, along with cluster drying sunburn symptoms are also seen. Paper covers and placement of bunch under the canopy will give protection.
4) In some cases, knot formation on bunch peduncle and even on the rachis is becoming a problem. Under this situation, application of nitrogen can be done.
5) Since the temperature is increasing, in color variety spray of ethephon can be avoided.
6) In the vineyard during veraision, fertilizer containing phosphorus and potash may be applied through drip.
7) Fungicide spray to be avoided after veraison and biologicals like Trichoderma, Bacillus, etc to be given preference

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

| **Days after fruit pruning** | **Risk of diseases** | | | |
|---|---|---|---|---|
| | **Downy mildew** | **Powdery mildew** | **Anthracnose** | **Others (specify)** |
| 121 | Nil | Low | Nil | Nil |

In regions where there is morning dew, dusting of Mancozeb 75WP @ 3-5 kg/acre should be done. Spray application of Trichoderma sp. @ 2-3g/L specifically directed towards the bunches could prevent bunch rot. As most of the vines are in berry setting stage sulphur 80WDG @ 2g/L for managing powdery mildew should be applied. Application of *Ampelomyces quisqualis* @ 6-8g/L should be done now as the conditions are suitable for its multiplication and establishment. One application of chitosan@ 2ml/L may also be given to prevent berry cracking and powdery mildew infection in crops which are around 100 days. One spray of *Bacillus subtilis* @2g/L may be given to remove the pesticide residues from the berries. Use of chemical fungicides are to be minimized and more emphasis should be on bio-intensive disease management at this stage.

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

**Growth Stage: Berry setting to development stage after October pruning**

- Buprofezin 25 SC @ 1.25 ml/L (PHI 65 days) water or spirotetramat 15.31 OD @ 700 ml/hectare (PHI 60 days) may be used for the management of mealybugs. In case PHI cannot be maintained for application of insecticides, tag mealybug infested vines and wash with any trisiloxane polyether-based surfactant @ 0.3 ml per litre water with water volume 10-12 litres per vine with single gun at high pressure to wash off the mealybugs. It should be followed by washing with plain water.
- Mite infestation may increase in most of the grape areas. Sulphur 80 WDG @ 1.5-2.0 g/L or Abamectin 1.9 EC @ 0.75 ml/L (PHI 30 days) or Bifenazate 22.6 SC @ 0.5 ml/L (PHI 30 days) water may be applied if mite infestation is observed.

- All the cracked/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 scavenging fly population in the vineyard. Ripe banana can act as a good attractant for these scavenging flies. Therefore, banana traps can be made and installed at the rate 5 per acre. To make a banana trap, take a container with small holes at sides and put a fully ripe banana inside it cut into pieces. 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.