ICAR-NATIONAL RESEARCH CENTRE FOR GRAPES,

Manjri, Pune.

WEATHER DATA FOR THE PREVAILING WEEK

Thursday (6/03/2025) – Wednesday (12/03/2025)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%
	Min	Max				
Nashik	14-20	35-40	Nashik, Ozar, Kalwan, Pimpalgaon Baswant, Dindori, Palkhed, Loni, Vani – Thu – Wed – No Rain.	Clear	6-18	9-15
Pune	16-23	35-40	Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas, Yavat, Narayangaon, Baramati, Indapur – Thu – Wed – No Rain.	Clear	7-14	10-14
Solapur	17-25	34-39	Tuljapur, Ausa, Vairag, Barshi, Solapur, Pandharpur, Nannaj, Latur Thu – Wed – No Rain.	Clear	5-15	9-17
Sangli	14-22	36-39	Sangli, Walva, Palus, Kawtha, Miraj, Palsi, Shirguppi, Khanapur Vita, Shetphal – Thu – Wed – No Rain.	Clear to cloudy	6-14	10-17
Vijayapura	17-25	34-39	Chadchan, Tikota, Telsang, Vijayapura – Thu–Wed –No Rain.	Clear to cloudy	10-21	9-16
Hyderabad	16-22	34-39	Hyderabad, Medchal, Zahirabad – Thu–Wed –No Rain.	Clear	4-16	11-25
Satara	14-22	35-39	Satara, Khatav, Phaltan – Thu – Wed – No Rain.	Clear	5-14	10-16
Ahmednagar	16-22	34-39	Sangamner, Rahata, Kopargaon Karjat, Ahmednagar, Shrigonda, Akole, Jamkhed – Thu – Wed – No Rain.	Clear	8-20	9-15
Jalna	14-22	34-40	Ambad, Ghansavangi, Jafrabad, Mantha, Jalna – Thu – Wed – No Rain.	Clear	3-17	8-13
Buldhana	12-23	31-39	D.raja, Sindkhed, Buldana, Chikhli –Thu–Wed –No Rain.	Clear	10-21	8-13
Kolhapur	15-22	35-42	Kagal, Karveer, Gagan-bavada – Thu–Wed –No Rain.	Clear	5-13	6-12

Bengaluru Rural	16-19	34-35	Anekal, Doddaballapur, Bengaluru -east, Bengaluru-north, Bengaluru – Thu–Wed – No Rain.	Clear to cloudy	5-24	13-20
Belagavi	15-20	35-38	Belagavi, Chikodi, Athni, Gokak–Thu–Wed –No Rain.	Clear	9-18	10-18
Bidar	14-22	34-40	Basavakalyan, Humanabad, Bidar – Thu –Wed –No Rain.	Clear	1-14	9-18
Bagalkot	17-25	34-39	Bagalkot, Jamkhandi, Hungund, Mudhol – Thu –Wed –No Rain.	Clear to cloudy	10-21	9-16

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.timeanddate.com/weather/india

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

II. Water management

a. Number of days after Fruit pruning: 170

b. Expected Pan evaporation: 6.5 to 8 mm

Amount of irrigation advised :

a. In case the soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
b. 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.
c. From Veraison stage onwards till maturity, apply irrigation through drip @ 11,050 to 11,900 L/ acre/ day. In the areas, where max. temperature exceeds 36°C, apply irrigation ranging from 11,900 to 13,600.
d. Whereever temperature is crossing 35°C, donot withhold irrigation during ripening to harvest stage for faster sugar accumulation, as this will lead to loose bunch, thereby affecting the quality of produce. This is especially true in case of light soils and saline soils.

Soil and Nutrient management

Berry Development stage:

1. 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.
2. If soils are calcareous, then apply zinc sulphate and ferrous sulphate @ 5-10 kg/acre at 65-70 days after pruning.
3. Possibility of powdery mildew infection. Build up potassium levels in grapevine either through foliar spray @4-5 gm SOP/L and drip @ 15 kg SOP/L if not applied since last 20 days.

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 @ 4g/L in calcareous soil.
3. Possibility of powdery mildew infection. Build up potassium levels in grapevine either through foliar spray @4-5 gm SOP/L and drip @ 15 kg SOP/L if not applied since last 20 days.
4. In case leaf curling/marginal leaf yellowing (potassium deficiency) and mites infection is observed, first control mites and then spray SOP@5g/L to take care of potassium deficiency and drip @ 15 kg SOP/L if not applied since last 20 days.
5. Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of berry cracking.

Rest Period

After the harvest of grapes during February – March, vine reserves are exhausted. After foundation pruning, till photosynthetically active leaves are formed, it is the vine reserves that contribute to the growth and development of the vines. Hence, following is advised:

1. Provide only need based irrigation to protect the existing leaves from drying and also contribute towards increasing the reserves of the vines through photosynthetic activity. The quantum of irrigation water applied should be approx. 5000 – 6000 L/ acre, once in a week. Care should be taken to reduce/stop the water in case new growth is observed on the shoot.
2. Apply 10-15 kg urea, 25-30 kg SSP and 10-15 kg Sulphate of Potash per acre every 15-20 days till foundation pruning is not done.
3. Flooding the vineyard is not advised as it will lead to wastage of water. Concentrate irrigation water application in the root zone only.

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.
2. If soils are calcareous in nature, then apply 50 kg/acre sulphur between the vines in the soil. The sulphur should be properly mixed in the soil for improving its efficacy in taking care of calcium carbonates. Mixing of sulphur with FYM/ compost further improves its efficacy.
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.

III. Canopy Management

Based on the present weather condition, following suggestions are offered.

1) The vineyard from Veraision to harvest stage:

The vineyard in veraision stage need sufficient irrigation for berry development. The increase in berry size till harvest will be 2-3 mm depending upon the soil and irrigation quality and weather condition available during this period. The developing bunches should be brought into the canopy shade to maintain uniform colour of a bunch. Sufficient irrigation in the vineyard will help for development of natural bloom on the grape berries thus improving the shelf life.

In case of coloured varieties, application of ethephon @ 0.35 to 0.40 ml/L water to achieve uniform colour will be sufficient. Excess concentration may lead to reduction in shelf life. Maintaining appropriate number of bunches per vine and leaf area for development of individual bunch on a vine will help to maintain uniform colour. In the late pruned vineyard, application of ethephon for colour development should be avoided as grape bunches may loose its turgidity.

In case of reduced canopy, the covering of grape bunches by paper or covering the canopy by shade net can be the option. This will help for maintaining uniform colour.

During this stage, the vineyard may experience cluster necrosis problem. The disturbance of nutrient balance in the vine coupled with excess bunch load generally lead to cluster necrosis. After the veraision stage starts, the management practices will not be useful to control. Hence, depending upon earlier experience of the grape vineyard, the application of calcium and magnesium should be started and completed one week before berry softening stage.

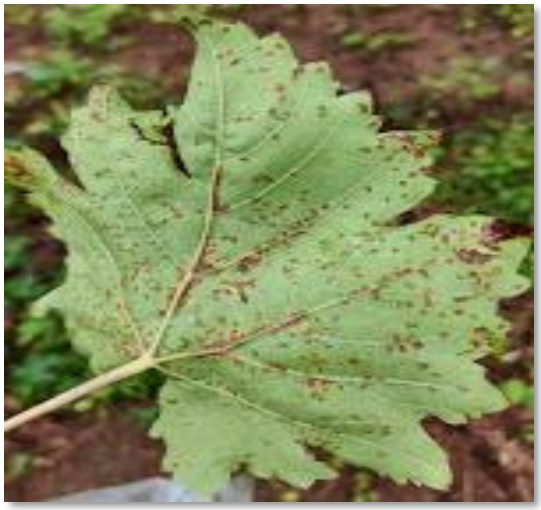
2) Vineyard establishment:

The establishment of new vineyard requires attention. Before planting of rootstock, the plot size and row direction need to be considered. For easy movement of tractor in the vineyard and convenience of activities to be undertaken, the row length should be 250-300 feet. The row should be in N-S direction so that the cordon direction will also be in NS direction while the shoot orientation will, be in E-W direction. This will help to harvest uniform sunlight required for the process of photosynthesis and formation of food material required for bunch development. Planting of rootstock should be completed before the temperature starts rising.

IV. Disease management

Days after fruit pruning	**Risk of diseases**			
	Downy mildew	**Powdery mildew**	**Anthracnose**	**Others (specify)**
170	Nil	Low	Nil	Bacterial spot- Nil Rust- Nil

Application of *Bacillus subtilis*@2ml/L may be done for powdery mildew control.



Bacterial spot

Anthracnose

Downy mildew

V. Insect and Mite Pest Management

Growth Stage: Veraison to post veraison stage after October pruning

- Mealybug and mites population may be noticed due to favourable weather conditions.
- Most important thing to manage mealybugs at this stage is to remove all the bunches touching cordons, main trunk or trellises. These bunches act as breeding ground for mealybugs and should not be allowed. If these kind of bunches are too many in the vineyard, then they should be tied away in such a way that they do not come in contact with cordons, main trunk or trellises.
- Buprofezin 25 SC @ 1.25 ml per litre water (PHI 65 days) is effective against mealybugs. If PHI cannot be maintained, then 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 can be given followed by wash with water. High pressure of spray and not washing with water after use of surfactant may cause damage to berries. This practice to be done only to wash away mealybugs and

stopping them to spread to healthy bunches. This should only be done as spot application and not in the entire vineyard.

- 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. These cracked berries can act as a good attractant for these scavenging flies. To make a trap, take a container with small holes at sides and put cracked berries inside it. Cover the mouth of the container with inverted paper-cone keeping a small hole at the bottom for fruit flies to enter. Hang these traps outside the vineyards. The berry cracking of grapes should be managed by following suitable viticultural practices.
- Remove excess shoot growth to manage thrips. If pesticide application is necessary, then abamectin given for the management of mites will also control thrips.