

WEATHER DATA FOR THE PREVAILING WEEK

Date of Fruit Pruning: 15/09/2021

Thursday (10/03/2022)–Wednesday (16/03/2022)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	16-20	33-35	Nashik- Thu, Fri- Drizzling, Dindori, Ozar, Vani, Palkhed, Kalwan, Pimpalgaon Baswant, Loni –Fri-Drizzling.	Clear to cloudy	09-12	15-28	22-46
Pune	18-20	29-35	Pune- Fri, Sat- Drizzling Phursungi-Thu-Drizzling, Loni Kalbhor, Uruli Kanchan, Patas, Yavat, Narayangaon, Indapur No Rain Baramati -Sat – Drizzling.	Clear to cloudy	06-15	13-27	21-46
Solapur	20-23	36-38	Vairag- Thu, Fri, Sat- Drizzling Barshi, Tuljapur- Sat- Drizzling, Nannaj, Ausa, Pandharpur , Solapur, Latur - Thu-Wed- No Rain	Clear to cloudy	12-23	12-19	23-34
Sangli	20-22	35-37	Sangli, Shetfal, Arag, Kagvad Palus, Vita, Walva, Palsi, Khanapur, Miraj, Tasgaon, Shirguppi- Thu- Wed- No Rain Kawthe- Fri – Drizzling.	Clear to cloudy	10-20	13-20	23-38
Vijayapura	20-23	35-38	Vijayapura-No Rain, Chadchan, Tikota & Telsang –Sat –Drizzling.	Clear to cloudy	11-19	12-20	26-34
Hyderabad	21-24	35-37	Hyderabad, Medchal, Zahirabad - Thu-Wed- No Rain.	Clear to cloudy	09-12	14-18	27-55
Satara	18-20	32-35	Satara, , Phaltan – Fri, Sat – Drizzling. Khatav- Fri – Drizzling	Clear to cloudy	08-13	15-25	25-48
Ahmednagar	15-19	31-37	Ahmednagar, Shrigonda, Sangamner- Fri, Sat- Drizzling, Jamkhed, Rahata, - Sat- Drizzling. Karjat, , Kopargaon, Akole- Thu- Wed- No Rain.	Clear to cloudy	12-17	12-29	19-44
Jalna	19-21	32-37	Ambad, Jalna, Gansawangi, Jafrabad – Sat- Drizzling to light Rain Mantha- Thu- Wed- No Rain.	Clear to cloudy	10-18	11-22	16-37
Buldhana	20-21	33-37	Buldana, Chikhli, Sindkhedraja, D.raja- Sat- Drizzling to light Rain.	Clear to cloudy	06-15	12-22	16-41

Kolhapur	19-21	33-36	Kagal, Karveer- Sat- Drizzling. Gaganbavada - Thu- Wed- No Rain.	Clear to cloudy	06-10	13-26	50-67
Bengaluru Rural	18-20	32-36	Anekal, Bengaluru-east, Bengaluru-north, Bengaluru-south, Doddaballapur- Thu- Wed- No Rain	Clear to cloudy	15-18	12-20	40-47
Belagavi	20-21	32-36	Belagavi, Gokak, Chikodi, Khanapur, Athni - Thu- Wed- No Rain	Clear to cloudy	09-14	13-23	31-79
Bidar	21-22	34-36	Bidar, Humnabad, Basavakalyan - Thu- Wed- No Rain	Clear to cloudy	08-14	13-16	30-38
Bagalkot	20-22	34-37	Bagalkot, Mudhol, Jamkhandi, Hungund- - Thu- Wed- No Rain	Clear to cloudy	11-17	12-20	28-36

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

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

<https://imdagrmet.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 (Dr. A.K. Upadhyay & Yukti Verma)

A) Days after pruning : 179 days

B) Pan evaporation 6 to 8 mm

1. In case the soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
2. From Veraison stage onwards till maturity, apply irrigation through drip @ 10,200 to 11,900 L/ acre/ day. In the area where max. temperature exceeds 37°C, apply irrigation ranging from 11,900 to 13,600.
3. In case vigour is more than desired, then reduce irrigation water application by half to 5,000 – 7,000 L/ acre. Still if you are not able to control the vigour, stop irrigation till such time growth is controlled.

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 should be avoided.
6. Whereever temperature is crossing 35°C, donot withhold water during ripening to harvest stage 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

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

- NIL

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

The following advice is offered for the vineyard after re-cut.

- 1) In the vineyard where the re-cut is completed, the shoot growth need to be at faster rate. Hence, sufficient irrigation with wafsa condition and nutrient application should be given the priority.
- 2) Excess irrigation should be avoided. This may lead to blackening of roots.
- 3) Under the condition of less water availability, irrigation in the vineyard during morning or evening should be preferred.
- 4) Laying of laterals on the ground will also help to minimize the water losses during high temperature.
- 5) In the vineyard on hilly areas, the wind speed will be more. This will lead to more water losses through evaporation. Hence, wind break or covering one side with shade net will help to reduce water loss and effective utilization of water by the vine.
- 6) While developing the trunk, increase nitrogenous fertilizers eg. Urea, 18:46:0, ammonium sulphate, etc. This will help to achieve faster vegetative growth.
- 7) The trunk should be developed in two instalment using “stop and go” method. The side shoots emerged after the pinching should be pinched at 3-4 leaf. These leaf will support for development of stronger trunk in the first year only.
- 8) For development of cordon, the growing shoot to be pinched 3-4 inch below the position of cutting to be done. This will help to grow new shoot in right direction.
- 9) Once the cordon developed, its life will be around 12-14 years. The position of canes on the cordon will be permanent. More the space between two canes, better will be the cultural operations during fruit bud differentiation and bunch development.
- 10) To achieve proper space between two canes, the shoot grown for cordon development should have more intermodal length (2.5 to 3.0 inch). This will help to harvest more sunlight required for fruit bud differentiation and control of diseases after fruit pruning. Control.
- 11) During the period of cordon development, avoid using potassic fertilizers.

V. Disease management (Dr. Sujoy Saha)

Days after fruit pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
179	Nil	Nil	Nil	Bacterial spot-Nil Bunch rot-nil

Trichoderma application through drip should be given before pruning.

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

Growth Stage: Berry development and veraison stage after October pruning

1. 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.
2. 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.
3. 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.

वृद्धि अवस्था: अक्टूबर प्रूनिंग के बाद बेरी विकास और वेराईजन अवस्था

- ब्यूप्रोफेज़िन 25 एससी @ 1.25 मिली / लीटर पानी (पीएचआई 65 दिन) या स्पाइरोटेट्रामैट 15.31 ओडी @ 700 मिली / हेक्टेयर (पीएचआई 60 दिन) का उपयोग मिलीबग के प्रबंधन के लिए किया जा सकता है। यदि इन कीटनाशकों के प्रयोग के लिए पीएचआई को बनाए नहीं रखा जा सकता है, तो मिलीबग संक्रमित अंगूर के पौधों को टैग करें और किसी भी ट्राइसिलोक्सेन पॉलिथर-आधारित सर्फैक्टेंट @ 0.3 मिली प्रति लीटर पानी (पानी की मात्रा 10-12 लीटर प्रति पौधा) उच्च दबाव में सिंगल गन से धोएं। बाद में सादे पानी से भी धोएँ।
- अधिकांश अंगूर क्षेत्रों में माइट का संक्रमण बढ़ सकता है। माइट के नियंत्रण के लिए सल्फर 80 डब्ल्यूडीजी @ 1.5-2.0 ग्राम / लीटर या एबामेक्टिन 1.9 ईसी @ 0.75 मिली / लीटर (पीएचआई 30 दिन) या बाईफेनाजेट 22.6 एससी @ 0.5 मिली / लीटर (पीएचआई 30 दिन) पानी का प्रयोग किया जा सकता है।
- सभी फटे / क्षतिग्रस्त मणियों को अंगूर के गुच्छों से निकाल देना चाहिए। इन मणियों को अंगूर के बगीचों से दूर जमीन में न्यूनतम दो फीट गहरा दफन करके नष्ट कर देना चाहिए। यह अंगूर के बगीचों में फल मक्खी की आबादी को कम करेगा। पका हुआ केला इन फल मक्खियों के लिए एक अच्छा आकर्षण का काम कर सकता है। इसलिए, केले के ट्रेप को 5 प्रति एकड़ की दर से लगाया जा सकता है। केले के ट्रेप को बनाने के लिए, साइड में छोटे छेदों के साथ एक कंटेनर लें और उसके अंदर पूरी तरह से पके हुए केले को टुकड़ों में काट लें। केले पर स्पिनोसैड 45 एससी की 2-3 बूंदें डालें। उल्टे कागज-शंकु के साथ कंटेनर के मुंह को कवर करें जिसमें फल मक्खियों के प्रवेश के लिए नीचे एक छोटा छेद रखें। अंगूरों की बेरी क्रैकिंग का प्रबंधन उपयुक्त प्रथाओं का पालन करके किया जाना चाहिए।