WEATHER DATA FOR THE PREVAILING WEEK

Date of Fruit Pruning: 28/09/2020

Wednesday (17/03/2021)–Wednesday (24/03/2021)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	18-21	34-37	**Nashik, Ozar, Palkhed, Dindori, Vani, Loni, Pimpalgaon Baswant, Niphad, Shirdi, Devla, Kalwan** Sun & Mon- Light Rain.	Clear to partly cloudy	0-14	12-21	28-43
Pune	18-24	34-37	**Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas, Yavat, Supa, Narayangaon** Mon- Drizzling. **Junnar** Mon- Light Rain. **Baramati** Sun- Drizzling. Mon- Moderate Rain.	Clear to partly cloudy	0-16	11-18	21-42
Solapur	17-22	35-39	**Solapur, Vairag, Nannaj, Kati, Pangri, Osmanabad, Barshi, Kasegaon, Atpadi, Latur, Ausa, Tuljapur** Sun- Drizzling. Mon- Moderate Rain. **Pandharpur** Sun- Moderate Rain. Mon- Light Rain.	Clear to partly cloudy	4-15	10-18	19-51
Sangli	20-23	35-37	**Sangli, Kagvad, Shetfal, Palsi, Palus, Khanapur, Vita, Miraj, Tasgaon, Walva, Shirguppi, Arag** Mon- Drizzling. **Kawthe Mahakal** Sun & Mon- Light Rain.	Clear to partly cloudy	2-17	11-18	33-47
Vijayapura	19-22	36-37	**Vijayapura, Chadchan**, **Tikota, Telsang** Sat & Sun- Drizzling.	Clear to partly cloudy	4-17	12-18	25-47

Hyderabad	18-22	35-37	**Hyderabad, Medchal, Zahirabad** Mon- Drizzling.	Clear to partly cloudy	2-13	15-21	37-52
Satara	17-21	34-36	**Satara, Khatav** - No Rain. **Phaltan, Man** Mon- Moderate Rain.	Clear to partly cloudy	0-16	13-26	31-50
Ahmednagar	17-20	34-37	**Ahmednagar, Nagar** Sat- Drizzling. Sun & Mon- Moderate Rain. **Akole** -No Rain. **Jamkhed** Sun- Drizzling. Mon- Light Rain. **Karjat** Sat- Moderate Rain. Sun- Drizzling. & Mon- Good Rain. **Kopargaon** Mon- Good Rain. **Rahata, Sangamner, Shrigonda** Sun- Drizzling. Mon- Moderate Rain.	Clear to partly cloudy	3-16	11-21	20-42
Jalna	18-23	33-39	**Jalna, Jafrabad, Mantha, Ambad, Gansawangi** Fri & Sat- Drizzling. Sun- Good Rain. Mon- Moderate Rain.	Clear to partly cloudy	2-12	10-20	17-46
Buldhana	17-23	34-39	**Buldana, Chikhli** Fri- Drizzling. Sat & Sun- Moderate Rain. Mon- Drizzling. **D.raja, Sindkhedraja** Fri- Drizzling. Sun- Good Rain. Mon- Moderate Rain.	Clear to partly cloudy	1-12	11-25	19-53
Kolhapur	21-23	31-35	**Gagan-bavada, Karveer** - No Rain. **Kagal** Mon- Drizzling.	Clear to partly cloudy	0-15	15-21	53-77
Bengaluru Rural	18-19	33-35	**Bangaluru-east, Bangaluru-north, Bangaluru-south, Doddaballapur, Anekal** Mon- Drizzling.	Clear	3-17	13-17	45-78
Belagavi	20-23	32-35	**Belagavi, Athni, Gokak, Chikodi, Khanapur** Mon- Drizzling.	Clear to partly cloudy	2-15	14-22	45-69

Bidar	16-22	34-37	**Bidar, Basavakalyan, Humnabad** Sun- Drizzling. Mon- Moderate Rain.	Clear to partly cloudy	3-15	14-25	31-59
Bagalkot	19-23	35-37	**Bagalkot, Badami, Bilagi, Hungund, Jamkhandi, Mudhol** – No Rain.	Clear	3-16	13-19	24-55

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:** 170
b) **Pan evaporation**: 6.5 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 @ 11,050 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 6,000 – 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. During ripening period when the plot is nearing harvest, if mummification is observed, neednot worry as it is too late a stage for intervention.

Rest Period

After the harvest of grapes during February – March, vine reserves are exhausted. There is need to build up vine storage reserves as 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. 6000 – 6500 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. Apply 8-10 tons FYM/ acre atleast 15-20 days before pruning. In case soil is calcareous, apply Sulphur along with it.
3. 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.
   c) 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)

Management in new vineyard:

1) After the re-cut, the shoot emergence will be at faster rate. For uniform and early bud sprouts, irrigation and nutrition requirement should be the priority.
2) Among the nutrients, nitrogen plays an important role. Nitrogen to the re-cut plants can be supplied through urea, 18:46:0, 12:61:0, etc.

3) During this period, the temperature is exceeding 35^{o}C while the R. H. is also reducing to the maximum. Under such condition, irrigation should be based on the requirement.
4) Under light soil, the irrigation to be in different time interval. Frequent irrigation can be the better option since the water holding in light soil is less.
5) The water holding capacity of black cotton soil is more hence, the irrigation can be based on the requirement.
6) To reduce the temperature and increase RH, irrigate the bund completely. This will help to increase the root spread also.
7) Irrigation under high temperature should be avoided.
8) After the bud sprouts, the selection of shoot for development of trunk is important. While selecting the shoot, terminal shoot should be pinched off and the second shoot to be tied to bamboo. By avoiding the terminal shoot, the chances of disease infection will be less.
9) During this period, the incidence of thrips will be more on succulent shoots. Hence, the measures for control of thrips to be taken up. During this growth stage, the deficiency symptoms of potash will also be seen on the older leaf. Hence, depending upon the symptoms, corrective measures either for thrips or potash deficiency to be taken up.
10) Many of the times double shoots comes out from the single bud. Under such condition, maintain only single bud.
11) During the bud swelling stage, the insect like flea beetle may become more serious. This pest eat the food material from the sprouted bud thereby spoiling the re-cut of the vine.

V. Disease management (Dr. Sujoy Saha)

Days after fruit pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
170	Nil	Low	Nil	Nil

One spray of Bacillus subtilis @2g/L may be given to remove the pesticide residues from the berries.

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.