WEATHER DATA FOR THE PREVAILING WEEK

Date of Fruit Pruning: 28/09/2020

Wednesday (03/03/2021)–Wednesday (10/03/2021)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	17-22	31-36	Nashik, Ozar, Palkhed, Dindori, Vani, Loni, Pimpalgaon Baswant, Niphad, Shirdi, Devla, Kalwan - No Rain.	Clear	0-14	10-12	16-39
Pune	18-24	32-36	Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas, Baramati, Junnar, Yavat, Supa, Narayangaon - No Rain.	Clear	0-15	9-13	20-45
Solapur	18-22	36-39	Solapur, Vairag, Nannaj, Kati, Pangri, Osmanabad, Barshi, Kasegaon, Atpadi, Latur, Ausa, Tuljapur, Pandharpur - No Rain.	Clear	2-15	11-12	18-29
Sangli	17-21	35-38	Sangli, Kagvad, Shetfal, Palsi, Palus, Khanapur, Vita, Miraj, Tasgaon, Kawthe Mahakal, Walva, Shirguppi, Arag - No Rain.	Clear	1-16	13-15	28-66
Vijayapura	17-20	32-36	Vijayapura, Chadchan, Tikota, Telsang – No Rain.	Clear	4-16	12-15	24-42
Hyderabad	17-20	33-37	Hyderabad, Medchal, Zahirabad – No Rain.	Clear	2-12	12-17	29-44
Satara	18-20	34-37	Satara, Khatav, Phaltan, Man – No Rain.	Clear	0-16	13-15	22-66

Ahmednagar	17-21	34-37	Ahmednagar, Nagar, Akole, Kopargaon, Rahata, Sangamner, Jamkhed, Karjat, Shrigonda – No Rain.	Clear	1-15	8-11	16-26
Jalna	17-20	36-37	Jalna, Ambad, Gansawangi, Jafrabad, Mantha – No Rain.	Clear	1-9	6-9	13-17
Buldhana	17-19	36-38	Buldana, Chikhli, D.raja, Sindkhedraja – No Rain.	Clear	0-12	6-9	12-17
Kolhapur	17-22	35-39	Gagan-bavada, Kagal, Karveer – No Rain.	Clear	0-15	14-31	43-87
Bengaluru Rural	15-18	31-34	Bangaluru-east, Bangaluru-north, Bangaluru-south, Doddaballapur, Anekal – No Rain.	Clear	2-21	9-19	39-75
Belagavi	17-21	33-37	Belagavi, Athni, Gokak, Chikodi, Khanapur – No Rain.	Clear	1-18	13-18	47-76
Bidar	18-22	35-37	Bidar, Basavakalyan, Humnabad – No Rain.	Clear	3-12	11-14	26-36
Bagalkot	17-21	34-36	Bagalkot, Badami, Bilagi, Hungund, Jamkhandi, Mudhol – No Rain.	Clear	3-16	12-15	32-46

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:** 156
b) **Pan evaporation**: 6-8mm

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.

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.

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

Nil

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

Following suggestions are offered for this week.

Management in old vineyard:

1) In early harvested vineyard, pre-pruning practices are to be initiated. Trench opening, application of FYM and fertilizer based on the soil test report to be done.
2) Soil testing just before trench opening will give an idea about present status of nutrient in the vineyard. This will help in reducing the cost of production.

3) While opening the trench, care to be taken that he root cuttings will not exceed 30% of the total root volume. Excess root cutting will lead to dead arm of the cordon.
4) After the trench opening, spread the fertilizer, FYM and other micronutrients as per the recommendation and cover with the soil immediately. Delay in covering the exposed roots will come in contact with sunlight and may dry thereby leading to irregular bud sprout and dead arm.
5) Immediately after the trench filling and making bund, the vineyard should be irrigated. This will help for easy bud sprouts.
6) Application of hydrogen cyanamide is required. However, the concentration may vary from 20 to 30 ml per litre water depending upon temperature available in the vineyard during the period of pruning.
7) During the high temperature period, cordons should be sprayed with water. This will support to build up relative humidity near the bud thereby leading to early bud sprouts.

Vineyard after the re-cut:

a) Irrigation to be given at regular interval so that the soil will be in wafsa condition. This will help in increasing the relative humidity near the re-cut portion so that the bud sprout will be faster.
b) 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.
c) In the sprouted shoots, many of the times double shoots comes out from the single bud. Under such condition, maintain only single bud.

Re-cut is taken leaving 3-4 buds. Since the hydrogen cyanamide is applied, all the buds sprouts at a time. While selecting the shoots for training on the bamboo, top shoot to be pinched off while second shoot to be selected.

V. Disease management (Dr. Sujoy Saha)

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

As harvesting is going on, it is advised to keep the fields clean so that inoculum is not carried over to the next season. Application of *Ampelomyces quisqualis* @ 6-8g/L should be done to control powdery mildew, if there is any. One spray of *Bacillus subtilis* @2g/L may be given to remove the pesticide residues from the berries. At this stage it is not advisable to spray any chemical as the crop is in harvesting stage. Bunch rot, if observed, foliar application of Trichoderma@ 5g/L may be given

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

- 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.