WEATHER DATA FOR THE PREVAILING WEEK

Date of Fruit Pruning: 28/09/2020

Wednesday (10/03/2021)–Wednesday (17/03/2021)

Location	**Temperature (°C)**		**Possibility of Rain**	**Cloud Cover**	**Wind Speed (Km/hr) Min-Max**	**R H%**	
	Min	**Max**				**Min**	**Max**
Nashik	17-22	32-37	**Nashik, Ozar, Palkhed, Dindori, Vani, Loni, Pimpalgaon Baswant, Niphad, Shirdi, Devla, Kalwan** - No Rain.	Clear to partly cloudy	0-19	13-19	28-36
Pune	18-24	32-37	**Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas**, **Baramati, Junnar, Yavat, Supa, Narayangaon** - No Rain.	Clear to partly cloudy	0-17	12-13	23-34
Solapur	18-24	37-40	**Solapur, Vairag, Nannaj, Kati, Pangri, Osmanabad, Barshi, Kasegaon, Atpadi, Latur, Ausa, Tuljapur, Pandharpur** - No Rain.	Clear	4-15	11-18	20-41
Sangli	18-22	35-38	**Sangli, Kagvad, Shetfal, Palsi, Palus, Khanapur, Vita, Miraj, Tasgaon, Kawthe Mahakal, Walva, Shirguppi, Arag** - No Rain.	Clear	1-14	12-14	26-41
Vijayapura	17-20	32-36	**Vijayapura, Chadchan**, **Tikota, Telsang** – No Rain.	Clear	3-15	11-13	27-45

Hyderabad	18-21	32-36	**Hyderabad, Medchal, Zahirabad** – No Rain.	Clear	2-13	13-18	34-46
Satara	17-21	33-37	**Satara, Khatav, Phaltan, Man** – No Rain.	Clear	0-15	13-15	29-48
Ahmednagar	18-21	35-38	**Ahmednagar, Nagar, Akole, Kopargaon, Rahata, Sangamner, Jamkhed, Karjat, Shrigonda** – No Rain.	Clear to partly cloudy	0-18	11-13	19-25
Jalna	20-23	36-38	**Jalna, Ambad, Gansawangi, Jafrabad, Mantha** – No Rain.	Clear to partly cloudy	1-14	11-14	19-24
Buldhana	19-23	36-40	**Buldana, Chikhli, D.raja, Sindkhedraja** – No Rain.	Clear to partly cloudy	0-13	11-16	17-27
Kolhapur	18-23	34-39	**Gagan-bavada, Kagal, Karveer** – No Rain.	Clear	0-13	12-18	39-71
Bengaluru Rural	16-18	31-33	**Bangaluru-east, Bangaluru-north, Bangaluru-south, Doddaballapur, Anekal** – No Rain.	Clear	4-18	14-22	50-81
Belagavi	18-21	34-38	**Belagavi, Athni, Gokak, Chikodi, Khanapur** – No Rain.	Clear	1-15	12-16	32-71
Bidar	18-24	35-37	**Bidar, Basavakalyan, Humnabad** – No Rain.	Clear	4-15	11-16	29-34
Bagalkot	18-22	34-36	**Bagalkot, Badami, Bilagi, Hungund, Jamkhandi, Mudhol** – No Rain.	Clear	3-16	10-14	28-50

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:** 163
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.

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. 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)

Practices to be followed for foundation pruning

During the last few days, the minimum as well as maximum temperature is increased. At present the foundation pruning in early pruned vineyard need to be initiated. The practices to be followed during this week is given as below.

1. Trench opening work to be initiated at least 15 days in advance.
2. While trench opening, a light trench of 2 feet wide with 3 to 4 inch depth leaving 8 to 9 inch from the trunk should be opened.
3. The root cuttings while breaking the bund will be experienced. Care should be taken that roots will not be damaged more than 30%.
4. Beyond this limit, the vine may go into stress thus leading to delayed and uneven bud sprouts, dead arm of the cordon.
5. The opened trench should not be exposed for more than three days. This may lead to drying and damage of root cell. This condition will also lead to disturbing the balance between requirement and availability (through supply) of nutrient at the time of bud sprouts.
6. In the opened trench, apply at least 2 basket FYM and 500 g SSP per vine.
7. In addition, in light soil urea @ 50 kg, $MgSO_4$ @ 15 kg, $FeSO_4$ @ 10 kg and Zinc Sulphate @ 5 kg per acre basis to be added.
8. In heavy soil, application of 25 kg urea may be sufficient.
9. Covering the trench immediately after application of FYM and other recommended fertilizers will help in maintaining the wetness in root zone.
10. After the covering of FYM and fertilizers with soil, there will be formation of bund. It will have good aeration and scope for formation of white roots. Hence, irrigation may be started immediately after closing the trench.
11. Foundation pruning to be done leaving one single bud on the last season cane.

12. Application of hydrogen cyanamide with minimum concentration of 20-25 ml/L water is needed.
13. In case of high temperature and reduced relative humidity, spraying of water on the cordon twice in a day (once during forenoon and second during afternoon) from 4th day after foundation pruning to 15 days after pruning to be done.
14. Shade nets covering on the cordon can also be used. This will help in reducing the temperature and increasing relative humidity thereby advancing bud sprouts.

V. Disease management (Dr. Sujoy Saha)

Days after fruit pruning	**Risk of diseases**			
	Downy mildew	**Powdery mildew**	**Anthracnose**	**Others (specify)**
163	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.

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.

11-18 मार्च, 2021

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।