WEATHER DATA FOR THE PREVAILING WEEK

Date of Fruit Pruning: 28/09/2020

Wednesday (17/2/2021)–Wednesday(24/02/2021)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%	
	Min	Max				Min	Max
Nashik	14-20	29-33	**Nashik, Ozar, Palkhed, Dindori, Vani, Loni, Pimpalgaon Baswant, Niphad, Shirdi** Fri- Light Rain. **Devla, Kalwan** Fri- Good Rain.	Clear to Partly Cloudy	0-21	23-35	35-63
Pune	14-19	29-31	**Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas** Thu- Drizzling. Fri- Moderate Rain. **Baramati** Fri- Drizzling. **Junnar, Yavat** Thu- Moderate Rain. Fri- Light Rain. **Supa, Narayangaon** Thu & Fri- Moderate Rain.	Clear to Partly Cloudy	0-20	20-45	33-65
Solapur	16-21	31-35	**Solapur, Vairag, Nannaj, Kati, Pangri, Osmanabad, Barshi, Kasegaon, Atpadi, Latur, Ausa Tuljapur** Thu & Fri- Light Rain. **Pandharpur -** No Rain.	Clear to Partly Cloudy	2-19	17-25	31-50
Sangli	18-19	30-34	**Sangli, Kagvad, Shetfal, Palsi, Palus, Khanapur, Vita** Fri- Drizzling. **Miraj, Tasgaon, Kawthe Mahakal -** No rain. **Walva, Shirguppi, Arag** Fri- Light Rain.	Clear to Partly Cloudy	1-22	20-23	37-65

Vijayapura	16-18	28-32	**Vijayapura, Chadchan** Fri- Light Rain. Sun- Drizzling. **Tikota, Telsang -** No Rain.	Clear to Partly Cloudy	3-21	18-24	37-49
Hyderabad	16-17	27-32	**Hyderabad, Medchal, Zahirabad** – No Rain.	Clear to Partly Cloudy	1-15	24-32	60-75
Satara	15-17	29-32	**Satara** Fri- Good Rain. **Khatay, Phaltan** Fri- Moderate Rain. **Man** Fri- Moderate Rain. Sat- Drizzling.	Clear to Partly Cloudy	0-19	23-32	34-76
Ahmednagar	13-17	25-33	**Ahmednagar, Nagar** Thu- Light Rain. Fri & Sat- Moderate Rain. **Akole, Kopargaon, Rahata, Sangamner** Thu- Drizzling. Fri- Moderate Rain. **Jamkhed** Thu & Sun- Drizzling. Fri & Sat- Light Rain. **Karjat** Fri & Sat- Drizzling. **Shrigonda** Fri- Moderate Rain. Sat- Drizzling.	Clear to Partly Cloudy	1-18	20-45	30-68
Jalna	13-17	27-33	**Jalna, Ambad** Fri- Good Rain. Sat- Light Rain. **Gansawangi** Thu- Light Rain. Fri- Good Rain. **Jafrabad** Fri & Sat- Moderate Rain. **Mantha** Thu- Drizzling. Fri- Light Rain.	Clear to Partly Cloudy	1-16	18-45	34-73
Buldhana	13-17	26-34	**Buldana, Chikhli** Thu & Fri- Moderate Rain. Sat- Light Rain.	Clear to Partly Cloudy	1-16	16-36	29-62

			D.raja, Sindkhedraja Fri- Good Rain. Sat- Light Rain.				
Kolhapur	17-21	31-34	**Gagan-bavada** Thu & Fri- Light Rain. **Kagal** – No Rain. **Karveer** Fri- Drizzling.	Clear to Partly Cloudy	0-22	16-21	43-88
Bengaluru Rural	15-18	29-31	**Bangaluru-east, Bangaluru-north, Bangaluru-south, Doddaballapur, Anekal** Sun & Mon- Light rain.	Clear to Partly Cloudy	2-15	21-32	74-90
Belagavi	15-19	30-35	**Belagavi** Fri- Moderate Rain. **Athni, Gokak** – No Rain. **Chikodi** Fri- Drizzling. **Khanapur** Fri- Light Rain.	Clear to Partly Cloudy	1-24	16-33	53-82
Bidar	14-18	28-33	**Bidar** Fri & Sat- Drizzling. **Basavakalyan, Humnabad** – No Rain.	Clear to Partly Cloudy	1-15	20-29	41-56
Bagalkot	16-19	30-33	**Bagalkot, Bilagi, Hungund, Jamkhandi, Mudhol** – No Rain. **Badami** Sun- Drizzling.	Clear to Partly Cloudy	2-21	18-23	36-53

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)

Expected pan evaporation: 5 to 7 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 @ 8,500 – 11,900 L/ acre/ day.
3. In case vigour is more than desired, then reduce irrigation water application by half to 4,250 – 6,000 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 (Dr. A.K. Upadhyay)

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. Manage canopy for adequate sunlight and air movement within the canopy for avoiding/ minimizing problems of berry cracking.

Rest period:

1. Apply 10kg Urea, 10 kg DAP and 10 kg Sulphate of Potash/ acre in two splits every 15-20 days.

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.

Advisory for unseasonal rains and hailstorm

1. At this stage it is not advisable to spray any chemical as the crop is in harvesting stage. Untimely rains can cause berry cracking and accumulation of water in the bunches leading to bunch rot.

   Hence, it is advised to give an immediate spray of chitosan@2g/litre of water. A spray of Trichoderma @6-7g/litre might follow. Tank-mix of chitosan and Trichoderma, though not advised, may be undertaken, at this juncture considering the gravity of the situation and shortage of time.
2. The soil should be at field capacity (wapsa) before untimely rains, so that the roots do not absorb water and translocate to the canopy and bunches leading to berry cracking issue.
3. Covering the vineyard with plastic cover/ hail net will protect the vineyard from hailstorm
4. Proper slope in the vineyard will drain the rain water, which otherwise would have increased humidity in the vineyard.

Post rains/ Hailnet

1. Immediately after the rains, tractor with air assisted spray should be made to run through the vineyard without any spray solution. This may reduce excess humidity from the canopy.
2. Remove cracked berries from the vineyard and burry 2 feet deep away from the vineyard to reduce movement of scavenging flies in the vineyards affected by untimely rains. Banana traps may be installed in the vineyards to trap and kill the flies. For detailed information, refer our Android App Grape Advisory or our website.

Raisins

1. Cover the raisin sheds to avoid entry of hails/ rainwater inside the drying shed.
2. If water enters inside a drying shed, remove the water immediately to avoid humidity build up.
3. Don’t allow stagnation of water near the drying shed.
4. If humidity is increased, use fans to reduce humidity.
5. In case humidity increases, the possibility of browning/ microbial proliferation of the raisins increases. Sulphur fumigation @1.5-2.0 g/kg of grapes should be carried out.

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

Nil

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

At present the major grape growing areas experienced rains and the present weather will be cloudy for some more time. This will affect the grape development. The practices/measures are suggested for the following.

Management after rains:

1) After the rainfall, berry cracking may be experienced. This condition will be more prominent in bunches at near harvest stage. Under this condition, the damaged berries are to be removed and buried in a pit at least 2 feet deep.
2) During this time the temperature in the vineyard will go down and the relative humidity will increase. There may be pressure of diseases also. At this stage, the use of fungicides are restricted. This condition is favourable for faster multiplication of biologicals. Hence, 2 – 3 sprays of Trichoderma @ 5 ml/L water should be taken.
3) In the vineyard where dew and fog remains for longer time, the chances of downy mildew under shaded canopy will be more.

Re-cut in new vineyard:

The minimum temperature in the atmosphere is increasing. This condition is more favourable for physiological activities of vine. Hence, preparation for re-cut need to be done.

a) Water stress to the vine: Depending upon the soil type and stem diameter of grafted vine, the water stress given to the vine will help for easy and early bud sprout.

b) Trench opening: During this time, a trench of 2 feet wide and 2-3 inch depth will help to apply FYM and other fertilizers. This operation will lead to cutting of roots to about 15 to 20 %. However, the roots should not be removed than this.

c) During the first year, deficiency of ferrous is seen. Hence, soil test should be done on priority.

d) After the re-cut, apply hydrogen cyanamide @35- 40 ml per litre. Double application is not required.

V. Disease management (Dr. Sujoy Saha)

Days after fruit pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
142	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.

Untimely rains can cause berry cracking and accumulation of water in the bunches leading to bunch rot. Hence, it is advised to give an immediate spray of chitosan@2g/litre of water. A spray of Trichoderma @6-7g/litre might follow. Tank-mix of chitosan and Trichoderma, though not advised, may be undertaken, at this juncture considering the gravity of the situation and shortage of time.

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

Growth Stage: Berry development and veraison 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.