ICAR-NATIONAL RESEARCH CENTRE FOR GRAPES, Manjri, Pune.

WEATHER DATA FOR THE PREVAILING WEEK

Thursday (03/07/2025) – Wednesday (09/07/2025)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%
	Min	Max				
Nashik	22-23	26-27	Nashik, Ozar, Kalwan, Pimpalgaon Baswant, Dindori, Palkhed–Thu– Wed – Drizzling to Light Rain. Loni, Vani–Thu–Mon –Light to Moderate Rain. Tue, Wed– Drizzling Rain.	Clear to cloudy	23-32	78-83
Pune	23	26-27	Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Baramati, Indapur, Patas, Yavat, Narayangaon – Thu–Wed–Drizzling Rain.	Clear to cloudy	17-27	79-81
Solapur	21-22	24-25	Tuljapur, Ausa, Vairag, Barshi, Pandharpur, Nannaj, Latur– Thu–Wed –Drizzling Rain. Solapur–Thu– Mon –Light to Moderate Rain. Tue, Wed–Drizzling to Light Rain.	Clear to cloudy	10-21	82-87
Sangli	22-23	26-27	Sangli, Miraj, Walva, Palus, Kawtha, Palsi, Khanapur Vita, Shirguppi, Shetphal –Thu–Wed –Drizzling Rain.	Clear to cloudy	28-41	76-81
Vijayapura	22-23	27-28	Chadchan, Tikota, Telsang, Vijayapura–Thu–Wed–Drizzling Rain.	Clear to cloudy	49-55	64-73
Hyderabad	23	30-32	Hyderabad, Medchal, Zahirabad–Thu–Wed–Drizzling Rain.	Clear to cloudy	25-30	56-64
Satara	21-22	24-25	Satara, Khatav, Phaltan –Thu–Mon –Light to Moderate Rain. Tue, Wed– Drizzling to Light Rain.	Clear to cloudy	10-21	82-87
Ahmednagar	22-23	28-29	Sangamner, Rahata, Kopargaon, Jamkhed, Ahmednagar,	Clear to cloudy	38-44	68-71

			Shrigonda, Akole, Karjat–Thu–Wed – Drizzling Rain.			
Jalna	23-24	28-32	Jalna, Ambad, Ghansavangi, Mantha–Thu–Wed – Drizzling Rain. Jafrabad–Sat–Sun–Light to Moderate Rain, Tue–Wed–Drizzling Rain.	Clear to cloudy	22-30	48-70
Buldhana	22-23	26-29	D.raja, Buldana, Chikhli, Sindkhed –Thu-Fri, Sun-Wed–Drizzling Rain. Sat–HeavyRain.	Clear to cloudy	25-39	60-80
Kolhapur	24	26-31	Kagal, Karveer, Gagan-bavada – Sat–Moderate to Heavy rain. Thu, Fri, Sun-Wed–Drizzling to Light Rain.	Clear to cloudy	13-26	65-84
Bengaluru Rural	20	28-30	Anekal, Doddaballapur, Bengaluru -east, Bengaluru-north, Bengaluru – Thu–Wed – Drizzling Rain.	Clear to cloudy	29-33	50-63
Belagavi	21	24-25	Belagavi,Gokak–Fri–Sat–Light to Moderate Rain. Sun–Wed–Drizzling Rain. Chikodi, Athni–Thu–Wed–Drizzling Rain.	Clear to cloudy	22-28	81-84
Bidar	22	27-28	Bidar, Basavakalyan, Humanabad –Thu–Wed–Drizzling Rain.	Clear to cloudy	25-29	68-76
Bagalkot	22-23	27-28	Bagalkot, Jamkhandi, Hungund, Mudhol – Thu–Wed– Drizzling Rain.	Clear to cloudy	49-55	64-73

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.timeanddate.com/weather/india

ICAR-National Research Centre for Grapes does not claim accuracy of it.

Water management

Pan evaporation: 3 – 4 mm

Amount of irrigation advised:

a. There is possibility of drizzling to moderate rains are there in many regions. In case the soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
b. 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.
c. During **fruit bud differentiation stage**, shoot vigour to be controlled and hence, the irrigation water applied should be from 1800 to 2500 L/ acre/ day.
d. For fruit bud differentiation stage, stress needs to be given. In clayey soil as the water holding capacity is higher, please note that stress needs to be imposed early else fruitfulness will be affected.
e. **Cane maturity stage:** Apply irrigation through surface drip @ 1800 to 2500 L/acre per day.
f. In case of monsoon rains, remove mulch cover on the bund and allow the rain water to seep into the soil. This will leach the accumulated salts in the rootzone. The mulch so removed can be mixed with the soil to improve the soil porosity.

IV. Soil and Nutrient management

In many of the grape growing areas, continuous spells of rains have been received and further also possibility of rains are there. The soils are already saturated. This has affected the rooting activity. Due to prolonged saturation, the roots may have started decaying. **Donot disturb the soil in the root zone. Wait for the soil to come to the wapsa condition before any soil related intervention has to be done.** Growth will be slow but donot worry. Only after wapsa, fertilizer application should be done.

Fruit bud differentiation stage

1. Based upon soil test values, apply 20 – 25 kg/ acre phosphoric acid or 150 kg/ acre SSP in case the soils are deficient in phosphorus. Phosphoric acid application is desirable in calcareous soils. Donot apply beyond this until and unless the soil and petiole tests show low phosphorus availability.
2. Donot apply any water soluble fertilizer having nitrogen.
3. At 45 DAP, perform petiole test to know the nutrient content of the vines. The petioles should be collected from 5th leaf from the base of the shoot even counting the leaves that have been removed.
4. Apply Magnesium sulphate @ 15kg/ acre in atleast 2 splits from 45 to 55 DAP.
5. In calcareous soils, spray magnesium sulphate and potassium sulphate @ 3 gm each/ L once only during 45 to 55 DAP.
6. Keep a close watch on the development of leaf blackening symptoms if irrigation water contains sodium more than 100ppm.
7. Possibility of leaf curling, check the leaf margins, if slight to more yellow, possibility of potassium deficiency. Foliar spray of SOP @ 3-4g/L followed by fertigation of 20-25 kg SOP/acre in 2 to 3 splits.

8. In coloured varieties like Jumbo, Nanasaheb Purple etc., leaf curling along with reddening/ bronzing of the leaf margin can be observed if potassium deficiency is there. Foliar spray of SOP @ 3g/L followed by fertigation of 20-25 kg SOP/acre in 2 to 3 splits.
9. If weather forecast predicts good rainfall, then give foliar spray of SOP @ 4-5g/L depending upon the canopy size, before the advent of rains.

Cane maturity stage

1. After current rains, give foliar spray of SOP @ 4-5 g/L depending upon canopy.
2. Potassium application is required from Cane maturity stage onwards. Approx. 64 kg of sulphate of potash (soluble grade) should be applied in this stage. Split the application into atleast five doses to reduce the leaching losses of the potassium. Apply 15 kg SOP in two – three splits during this week. In calcareous soils, provide foliar application of Sulphate of Potash (@ 4g/L) once in this growth stage.
3. Apply magnesium sulphate @ 15 kg/acre in two splits. The application should be done during 60-75 days after pruning. In calcareous soils, provide foliar application of Magnesium sulphate (@3g/L) in this growth stage.
4. In case of calcareous soils where acute iron deficiency is observed, repeatedly spray 2-3g/L Ferrous sulphate two to three times at 3 days interval followed by 15-20 kg/ acre Ferrous sulphate application through drip. The fertigation dose should be split into atleast 3 doses of 5kg each.
5. To effectively manage calcareous soil, apply 5kg/ acre soluble sulphur through drip every week. Also spray magnesium sulphate and potassium sulphate @ 3 gm each/ L once only.
6. In case due to rains and for preventive control, if bordeax or copper sprays are given, then there is possibility of leaf reddening in coloured varieties like Krishna Seedless etc. No specific pattern will be there. This may be due to copper toxicity. Regulate copper sprays.
7. If weather forecast predicts good rainfall, then give foliar spray of SOP @ 4-5g/L depending upon the canopy size, before the advent of rains.

III. Canopy Management:

Based on the present weather condition, following suggestions are offered.

1) Rainfall during fruit bud differentiation stage:

During this stage of growth, almost all the grape vineyards are experiencing rainfall. Due to continuous rains, the vegetative growth is continuing at faster rate. Under this condition, following problems will be noticed.

1) The leaf size is increasing
2) The emergence of side shoot is more
3) The shoot growth is more
4) Incidence of fungal diseases like anthracnose and downy mildew
5) Increase in gibberellin level in the vine
6) Delay in cane maturity
7) Formation of aerial roots on the trunk, cordon and even on the basal portion of cane

The following management practices are suggested to the grape growers.

1) **Control the shoot vigour**: To achieve proper fruit bud differentiation in grapevine, vigour needs to be kept under control. Shoot pinching is a practice for controlling the vigour. Application of potassic fertilizers (based on the shoot age) through drip and also through foliar sprays can help to control the vegetative growth. Many of the grape growers are using paclobutrazol for the control of vigor in grape vineyard. However, NRC Grapes has not done any work to recommend its use in grape.
2) **Open canopy**: To achieve fruit bud differentiation, the canopy should be open type. Arrangement of shoots on foliage wire in such a way that each shoot will be exposed to the sunlight. Removal of side shoots at the earliest will help to obtain open canopy. To obtain fruitful canes, sunlight should fall with equal frequency on each bud. This can be made possible with open canopy.
3) **Disease control**: In many of the grape vineyard, anthracnose is becoming a major problem. On each shoot, 16-17 leaf having 160-170cm^2 leaf area are sufficient. During this stage, the growth is faster. Hence the growth above the requirement should be removed immediately. This will help to control further spread of anthracnose from leaf to shoot.
4) **Use of PGR**: During cloudy weather and rainy days, sufficient sunlight is not received by the buds available on shoots. Hence, fruit bud differentiation becomes a problem. Increase in cytokinin level in the vine becomes important. Application of cytokinin based PGR (6 BA, Uracil, CPPU, CCC, etc.) will help to enhance cytokinin level. Spraying of 6BA @ 10 ppm followed by Uracil @ 25 ppm can support the fruit bud differentiation. One spray of CPPU with less concentration (0.30 ml/L water) can also be taken.
5) **Control of aerial roots:** With the continuous rains in the vineyard, the water gets stagnated in root zone. The water covers the space in root zone and thus the pore spaces get blocked. Due to this the roots (new and old) in the root zone starts rotting turning into black. Such roots are not functional to support the vine for further growth and development. As a part of defence mechanism, the aerial roots are formed on the upper part of vine (trunk, cordon and shoots) for its nourishment. Formation of aerial roots will not affect the growth. However, removal of stagnated water from the root zone should be given the priority.

IV. Disease management:

Days after foundation pruning	Risk of diseases			
	Downy mildew	**Powdery mildew**	**Anthracnose**	**Others (specify)**
71	Nil	Nil	Nil	Bacterial spot- Nil Rust-Nil

Application of Bordeaux mixture (0.5-1%) or copper hydroxide 53.8DF @ 1.5g/L may be done. Application of systemic fungicides need not be done at this stage. As rainfall is high in all grape growing areas, there is a possibility of heavy anthracnose and bacterial blight infection. One spray of Thiophenate methyl or carbendazim @ 1g/L or copper sulphate + mancozeb @ 5g/L may be given for the control of anthracnose. For the control of both anthracnose and bacterial spot an application of kasugamycin + copper oxychloride @0.75g/Lmay be given as a preventive measure.

V. Insect and Mite management.

Due to optimum weather conditions, mealybug infestation may be noticed. Use of broad spectrum insecticides should be avoided for mealybug control. Buprofezin 25 SC @ 1.25 ml/L water may be given to manage mealybugs. Preventive plant wash, on stem and cordons, of biocontrol agents such as *Verticillium, Metarhizium, Beauveria* may be given. In case of mealybug infestation on canes, foliar application of imidacloprid 17.8 SL @ 0.4 ml per litre water should be given.

- In case of thrips or caterpillar infestation, remove excess canopy. Application of emamectin benzoate 5 SG @ 0.22 g per litre water is effective. Light traps may be installed outside the vineyards to manage moths for reducing caterpillar infestation.
- Red colour stem borer (*Dervishiya cadambae*) has started egg laying and infestation under bark in grape areas. Install light traps near the vineyards to manage moths of this stem borer. Remove loose bark from stem and cordons and give preventive wash on stem and cordons with biocontrol agent *Metarhizium* @ 3-5 ml per litre water minimum once in the month during July to September months. If infestation is observed, remove the loose bark and give stem and cordon wash with *Metarhizium* @ 3-5 ml per litre water and 1.5-2 litres water per plant.