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

WEATHER DATA FOR THE PREVAILING WEEK

Thursday (04/09/2025) – Wednesday (10/09/2025)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr) Min-Max	R H%
	Min	Max				
Nashik	21-22	24-29	Nashik, Ozar, Kalwan, Pimpalgaon Baswant, Dindori, Palkhed–Thu,Mon–Wed–Drizzling Rain, Fri–Light to Moderate Rain, Sat–Sun–Moderate to Heavy Rain. Loni, Vani–Thu–Wed–Drizzling Rain.	Clear to cloudy	20-24	71-97
Pune	20-21	25-27	Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Patas, Yavat, Narayangaon, Baramati, Indapur –Thu–Wed– Drizzling Rain.	Clear to cloudy	18-25	61-92
Solapur	20-21	29-31	Tuljapur, Ausa, Vairag, Barshi, Pandharpur, Latur, Solapur –Thu–Wed–Drizzling Rain. Nannaj–Thu–Drizzling to Light Rain. Fri–Wed– Drizzling Rain.	Clear to cloudy	20-24	49-85
Sangli	21-22	28-30	Sangli, Miraj, Walva, Palus, Kawtha, Palsi, Khanapur Vita, Shirguppi, Shetphal–Thu–Wed–Drizzling Rain.	Clear to cloudy	19-24	59-97
Vijayapura	20-21	29-31	Chadchan, Tikota, Telsang, Vijayapura–Thu–Wed–Drizzling Rain.	Clear to cloudy	26-29	48-87
Hyderabad	22	29-31	Hyderabad, Medchal, Zahirabad – Thu–Wed–Drizzling Rain.	Clear to cloudy	17-21	45-81
Satara	20-21	27	Satara, Khatav, Phaltan –Thu–Wed–Drizzling Rain.	Clear to cloudy	15-23	67-96
Ahmednagar	20-21	26-31	Sangamner, Rahata, Kopargaon,–Thu– Drizzling to Light Rain Fri–Wed– Drizzling Rain. Akole – Thu–Fri– Drizzling to Light Rain. Sat,Mon–Wed–Drizzling Rain. Sun–Light to Moderate Rain.	Clear to cloudy	21-33	49-89

			Ahmednagar, Shrigonda Karjat, Jamkhed–Thu–Wed–Drizzling Rain.			
Jalna	21-22	22-31	Jalna, Ambad, Ghansavangi, –Thu–Wed– Drizzling Rain. Mantha–Thu–Mon–Drizzling Rain,Tue–Wed–Drizzling to Light Rain. Jafrabad–Thu–Sun–Drizzling Rain. Mon–Wed–Drizzling to Light Rain.	Clear to cloudy	16-20	57-94
Buldhana	22-23	24-31	D.raja, Buldana, Chikhli–Thu–Drizzling to Light Rain, Fri–Wed–Drizzling Rain. Sindkhed–Thu–Light to Moderate Rain, Fri–Wed–Drizzling Rain.	Clear to cloudy	13-23	68-94
Kolhapur	23-24	28-30	Kagal, Karveer, Gagan-bavada –Thu–Wed–Drizzling Rain.	Clear to cloudy	9-11	78-97
Bengaluru Rural	20-21	28-29	Anekal, Doddaballapur, Bengaluru -east, Bengaluru-north, Bengaluru – Thu–Sat,Mon–Wed–Drizzling Rain. Sun–Drizzling to Light Rain.	Clear to cloudy	19-23	59-93
Belagavi	21-22	28-30	Belagavi, Gokak, Chikodi, Athni –Thu–Wed–Drizzling Rain.	Clear to cloudy	16-18	71-98
Bidar	21	29-31	Bidar, Humanabad –Thu–Wed –Drizzling Rain. Basavakalyan–Thu–Mon–Drizzling Rain. Tue–Wed–Light to Moderate Rain.	Clear to cloudy	17-21	57-92
Bagalkot	20-21	28-30	Bagalkot, Jamkhandi, Hungund–Thu – Tue–Heavy Rainfall, Wed–Light to Moderate Rain. Mudhol – Thu–Wed–Drizzling Rain.	Clear to cloudy	23-25	51-87

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.

II. Water management

Pan evaporation: 0 to 4 mm

Amount of irrigation advised :

1. All the grape growing regions are forecasted to receive from drizzling to moderate rains. In case the soil is under wapsa (field capacity) condition, donot irrigate the vineyard.
2. If the soils especially medium and heavy, are saturated with water, then, do not irrigate for atleast 5-7 days till the soil comes to wapsa condition.
3. **Cane maturity stage:** Apply irrigation through surface drip upto 2500 L/acre per day.
4. 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.

Soil and Nutrient management :

1. 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 and cane maturity will be affected but donot worry. Only after wapsa, fertilizer application should be done.
2. Due to continuous sprays the leaf will not look healthy, need based sprays should be followed as the leaf health is bound to affect the photosynthate formation. This will impact cane maturity.
3. After current rains, give foliar spray of SOP @ 3-5 g/L depending upon canopy size.
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. Apply 5kg/ acre soluble sulphur through drip every week. Also spray magnesium sulphate and potassium sulphate @ 3 gm each/ L once only.
5. 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.

6. 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.
7. 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.
8. After cane maturity, raise Sunnhemp or Dhaincha for green manuring purpose.
9. The light intensity is reduced due to cloudy conditions, management of canopy to improve light penetration is important for cane maturity.

Pre-pruning operations – Fruit pruning season

1. In case pruning is planned during October, raise Sunnhemp or Dhaincha for green manuring purpose.
2. 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. The application should be alongwith FYM/compost etc. They should be mixed in the soil and not left on the top.
3. In case of calcareous soils, if SSP is applied as basal dose, mix with FYM/compost etc. to avoid phosphorus fixation.
4. Test the soil and irrigation water, to plan for nutrient and water management during fruit pruning season.
5. In areas where rains have not been received and the irrigation water availability is less, it is suggested to flood the rootzone(only) with water to leach out the salts and wet the entire soil depth before pruning and then cover with mulch. Thereafter irrigate as per availability of water.

III. Canopy Management

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

1) Rainfall during cane maturity stage:

Many of the grape vineyards are experiencing the frequent rains. This is creating the condition of increasing moisture in the root zone as well as relative humidity in the vineyard. Water saturation the root zone is leading to increase in internal gibberellins in the vine as well as hormone synthesis. This condition generally favours for increase in internodal length thereby increasing the shoot vigour, emergence of side shoots, and also increase in leaf area. Under such conditions, the vines tend to develop dense canopy thereby leading to

disease incidence. Under such canopy, downy mildew incidence is more prominent. In addition to these problems, cane maturity id delayed. The delayed cane maturity may lead to problems in developing the pith in the canes. The immature canes generally do not develop bunches. Hence, these canes are removed during the fruit pruning time or the vines are pruned only after the cane is matured completely. Hence, under such condition, following practices need to be followed.

a) To achieve proper cane maturity in grapevine, vigour needs to be kept under control. Shoot pinching is a practice for controlling the vigour. Removal of side shoots also need to be done.
b) Application of potassic fertilizers (based on the shoot age) through drip and also through foliar sprays can help to control the vegetative growth. During this time, fertilizer grade 0.0.50 @ 3-4g/L water can be sprayed alternate days. In addition, SOP or 0.0.50 @ 1.0 kg/acre can be supplied through drips.
c) At this stage, hard pinching can be avoided as this will lead to emergence of more side shoots and bunches.
d) Training the shoots on foliage wire will help to receive proper sunlight so that cane maturity can be advanced.
e) Under humid condition and dense canopy, major diseases like downy mildew can become the major problem. Severe incidence of downy mildew may lead to leaf fall before fruit pruning. Hence, copper based fungicides and biologicals like Trichoderma spray can be given priority.
f) Under the condition of dry weather with semi-matured to matured leaf, powdery mildew can be the major problems. Under severe condition, leaf fall may also be seen in the vineyard. Hence, Bourdeaux mixture spray @ 0.75 to 1.0% concentration may help to control both the diseases.
g) 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.

2) Management of grafting in new plot:

Preparation of rootstock:

The period of grafting of new variety on the rootstock is started. During this period, the temperature (30-35^{0}C) and 80-90% relative humidity will be available. This condition will favour the successful grafting in the field condition. However, before the grafting, the rootstock should possess following characters.

1) The rootstock shoot should be of 8-10 m diameter at about 30cm above the ground.

2) The shoots of rootstock should be straight.
3) The rootstock shoot should be healthy.
4) The shoots should be in sap flow condition.

To achieve this, the appropriate type of shoots needs to be retained while the remaining shoots to be removed. Under the condition of excess number of shoots, retain only three to four straight growing with larger internode and proper thickness. If the shoot has more side shoots, it needs to be removed to obtain straight and thick shoot at the graft position. Hence, at least 15 days before the actual grafting, the rootstock shoots to be prepared.

Preparation of scion:

The scion selected for grafting should be from healthy, disease free and high yielding vines. Generally, the vine selected for scion grafting should not be used for yield. However, in majority of the grape vineyards, this is not being followed. The scion selected should be completely matured with dark brown pith in it. Such canes have sufficient food material stored in it. Following practices can be followed while grafting.

a) The selected scion should be completely matured with dark brown pith.
b) The selected scion should be from high yielding and disease-free vines.
c) While selecting the scion on sub-cane, select the portion of canes only after three buds above the knot developed.
d) Dip the scion in Carbendazim @ 3-4 g/L water for about 2-3 hours. This will help to remove disease inoculums (if any).
e) Under the condition of dry weather, irrigate the rootstock plants with sufficient water so that the sap flow continues. This will help for early callus formation.

IV. Disease management

Days after foundation pruning	**Risk of diseases**			
	Downy mildew	**Powdery mildew**	**Anthracnose**	**Others (specify)**
128	Moderate	Low	High	Bacterial spot- Moderate Rust- Low

As rainfall is intermittent and moderate in all grape growing areas, there is a possibility of heavy anthracnose and bacterial blight infection. Two sprays 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. Any triazole application will also control anthracnose. Application of Mancozeb@2-2.5g/l or copper hydroxide 53.8DF @ 1.5g/L may be done to control downy mildew. Application of systemic fungicides need not be done at this stage. One foliar application of Trichoderma should be given along with drip application of Trichoderma. In powdery mildew prone areas, an application of *Ampelomyces quisqualis* @ 5g/L may be applied. For control of rust a spray of chlorothalonil@2g/L may be given.

V. Insect and Mite management.

- Stem borer, *Celosterna scabrator* adults may be seen in vineyards and/or near light at night at homes near vineyards. They are easily visible during daytime feeding on the bark of the young stem of grapes. They can be easily captured by hand and killed whenever noticed in the vineyards during this period. Spraying any insecticide is not economically effective to manage adults.
- Due to optimum weather conditions, mealybug infestation may be noticed. Use of broad-spectrum insecticides should be avoided for mealybug control. Preventive plant wash, on stem and cordons, of biocontrol agents such as *Verticillium, Metarhizium, Beauveria* may be given. In case of shoot malformation due to mealybug or infestation on canes, remove excess shoot growth and give foliar spray of imidacloprid 17.8 SL @ 0.4 ml per litre water.
- In case of thrips or caterpillar infestation, remove excess canopy. Application of fipronil 80 WG @ 0.0625 g per litre or 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.
- Mite infestation may start appearing, therefore, monitor the vineyards carefully. If mite infestation is observed, sulphur 80 WDG @ 1.5-2.0 gram per litre or abamectin 1.9 EC @ 0.75 ml/l water is effective.
- 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 spot stem and cordon wash with *Metarhizium* @ 3-5 ml per litre water and 1.5-2 litres water per plant on the infested plants only.

- In new vineyards, flea beetle infestation may be observed. In case of heavy infestation, give soil drenching with imidacloprid 17.8 SL @ 1.5 ml per plant and foliar application with spinetoram 11.7 SC @ 0.3 ml per litre or fipronil 80 WG @ 0.0625 g per litre water.

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