

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/04/2018)

I. Weather Data for the Prevailing Week

Thursday (02/08/2018) -- Thursday (09/08/2018)

| Location | Temperature (°C) | | Possibility of Rain | Cloud Cover | Wind Speed (Km/hr) | R H% | |
|-----------|------------------|-------|--|-------------------------|--------------------|-------|-------|
| | Min | Max | | | | Min | Max |
| Nasik | 22-23 | 26-28 | Light Rain Mon- Tue Moderate Rain Wed-Thu Nashik, Pimpalgaon Baswant, Ojhar, Dindori, Vani Drizzling- Sun - Thu Palkhed, Loni, Shirdi, Niphad, Kalwan, Devla, Satana: | Cloudy | 17-24 | 74-80 | 82-94 |
| Pune | 23 | 27-28 | Light to Moderate Rain Sun- Wed, Good Rain- Thu Pune, Phursungi, Narayangaon, Junnar Drizzling to Light Rain- Sun - Thu Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati | Partly to Mostly cloudy | 16-24 | 75-80 | 86-91 |
| Solapur | 23 | 31-33 | Light Rain- Sun- Thu Solapur, Kati, Nanaj, Pandharpur, Osmanabad, Tuljapur, Latur, AUSA Kasegaon & Atpadi Drizzling- Sun - Thu Barshi, Pangri, Vairag | Partly Cloudy | 12-24 | 59-66 | 83-88 |
| Sangli | 22 | 27-29 | Light Rain Sun-Tue and Thu, Moderate Rain -Wed, Sangli, Miraj, Kagvad, Arag, Shirguppi Light Rain-Sun - Thu Kavathe Mahankal, Palus, Valva, Tasgaon, Shetfal, Palsi, Vite, Khanapur | Cloudy | 15-28 | 71-75 | 89-93 |
| Bijapur | 22-23 | 30 | Light Rain- Sun, Moderate Rain- Wed Bijapur, Tikota, Telsang Drizzling to Light Rain Sun-Thu Chadchan | Cloudy | 17-29 | 59-61 | 87-90 |
| Hyderabad | 23 | 31-33 | Moderate Rain- Mon, Light Rain- Tue-Thu Hyderabad, Medchal Wed-Light Rain Zahirabad | Cloudy | 08-23 | 62-65 | 84-87 |

Note: Above weather information is summary of weather forecasting given in following websites
<http://www.imd.gov.in/>, <http://wxmaps.org/pix/prec6.html>, <http://www.fallingrain.com/world/IN/>,
<http://www.wunderground.com/>, <http://www.bbcweather.com-weather/1269750>, etc..

II. a) Days after pruning: 107 days

b) Expected growth stage of the crop: - Cane maturity and afterwards stage after foundation pruning

III. Water management (Dr. A.K. Upadhyay)

Expected pan evaporation: Nil to 4 mm

Amount of irrigation advised

1. All the grape growing regions are forecasted to receive from drizzle to light/moderate rains. The irrigation water application should be based upon the growth of the vines. In case rain exceeds 5 mm on a given day, irrigation water application can be skipped for that day. Generally, under wapsa (field capacity) condition of the soil, do not irrigate the vineyard.
2. In general, there will not be any need to provide irrigation in areas which have witnessed continuous rains since last 3-4 days.
3. The vineyards are at Cane maturity and Fruit Development stage. Provide irrigation through drip @ 3500 - 4000 litre/ha/day in case no rains are received.
4. To leach out the salts from the rootzone, it is important to remove mulch/ plastic from the bunds, so that the salts can be washed out from the rootzone. Then the bunds can be mulched again after the monsoon season.

IV. Soil and Nutrient requirement (Dr. A.K. Upadhyay)

Cane maturity and Fruit bud development stage:

1. 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 at least five doses to reduce the leaching losses of the potassium. Apply 15 kg SOP in two – three splits during this week.
2. The rains have started. 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.
3. In case of calcareous soils where acute iron deficiency is observed, repeatedly spray 2-3g/L Ferrous sulphate two to three times at 4-5 days interval followed by 15-20 kg/ acre Ferrous sulphate application through drip. The fertigation dose should be split into at least 3 doses of 5kg each.
4. In case pruning is planned during September, raise Sunnhemp or Dhaincha for green manuring purpose.

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

Nil.

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

Old vineyard:

In the vineyard with advancement of cane maturity the rainfall will lead to increased vigor. This will lead to delay in cane maturity. The growing shoot will be more prone to anthracnose and downy mildew infection. In majority of the grape vineyard, sprouting of main bud is experienced by the grape farmers. This is mainly because application of growth retardants and continuous pinching of new shoots. Under such situation, pinching of growing tip should be done after allowing the terminal growth upto 3-4 nodes.

Rootstock garden:

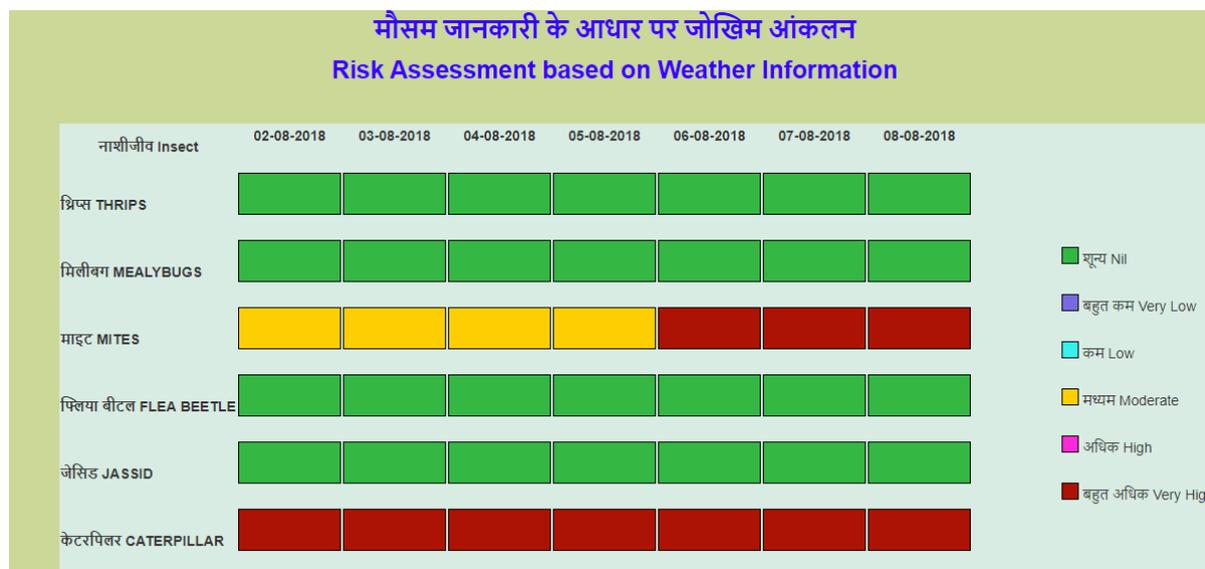
The grafting of new varieties on the grape rootstock should be taken up after 15th August since the favorable condition for graft success and also scion will be available during this period. Hence, removal of side shoots 3-4 days before grafting to be taken up. Irrigate the rootstock plants under the situation of dry weather.

VII. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

| Days after pruning | Risk of diseases | | | |
|--------------------|------------------|----------------|-------------|---------------------------|
| | Downy mildew | Powdery mildew | Anthracnose | Others (specify) |
| 107 | Moderate | Moderate | High | Bacterial leaf spot, Rust |

Wherever new shoots are appearing, pinching should be done to prevent anthracnose infection. If the disease is in stem, clipping has to be done and the adjacent healthy portion (2-3cm) of the infected region should be removed as well. An application of thiophenate methyl @ 1g/L + Mancozeb @ 2.5g/L in a tank mix will give a control of the established infection of anthracnose as well as rust. The above tank mix will also give a control against bacterial spot and if the bacterial spot is ignored, it might lead to defoliation. Around 5th-6th of August, light rains are expected in the Konkan region and protection against downy mildew should be taken. If the above application(s) of Mancozeb is not sufficient to control downy mildew, application of potassium salts of Phosphoric acid@4g/L+ Mancozeb @ 2.0g/L in a tank mix will give a good control of the disease. Biocontrol agents like *Trichoderma* sp, *Bacillus subtilis* and *Ampelomyces quisqualis* may be applied along with sulphur but not with copper fungicides. 2-3 sprays of biocontrol agents may be given during this period when the RH is high and temperature is low. However, where copper fungicides are applied drenching of the biocontrol agents may be done to induce systemic resistance in plants.

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



- Spraying of emamectin benzoate 5 SG @ 0.22 gram per litre water or fipronil 80 WG @ 0.06 gram per litre water is effective to manage caterpillars.
- Remove excess shoot to manage thrips populations.
- Vineyards may have higher mealybug infestation as well. However, increase in relative humidity will favour build-up of natural enemies and natural biological control of mealybugs. Therefore, avoid spraying broad spectrum insecticides. Use of insecticides for mealybug control should be avoided. Entomogenous fungus such as *Metarhizium*,

Beauveria and *Lecanicillium* can be used for plant wash at 15 days interval to reduce mealybug populations. If, insecticide application seems inevitable, the only buprofezin 25 SC @ 1.25 ml/L water may be used for management of mealybugs as this insecticide does not harm beneficial organisms in the vineyard.

- Mite infestation may be observed on old leaves at some places. Spraying of sulphur 80 WDG @ 2.0 gram per litre water is effective to manage mites.
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Crop advisory relevant to different places is prepared by experts, considering forecasted weather, crop growth stages in majority of vineyards and ground information on incidence of different conditions in different grape growing areas received from regular interaction with progressive grape growers. No claims are made on its correctness.

Usefulness of this information may be communicated to us at director.nrcg@icar.gov.in.