# मौसम पूर्वानुमान आधारित साप्ताहिक सलाह
# Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/10/2016)

## I. Weather Data for the Prevailing Week

**Thursday 16/02/2017) - Thursday (23/02/2017)**

| Location | Temperature | | Possibility of Rain | Cloud Cover | Wind Speed (Km/hr) | R H% | |
|---|---|---|---|---|---|---|---|
| | Min | Max | | | | Min | Max |
| **Nasik** | 16-21 | 31-34 | **No Rain** Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana. | Clear | 02-19 | 19-29 | 43-77 |
| **Pune** | 19-22 | 33-36 | **No Rain** Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar. | Clear | 02-21 | 14-22 | 38-59 |
| **Solapur *** | 22-23 | 34-37 | **No Rain** Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur. | Clear | 03-23 | 12-18 | 32-48 |
| **Sangli *** | 21-23 | 34-36 | **No Rain** Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad, Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur | Clear | 03-24 | 12-19 | 44-67 |
| **Bijapur *** | 21-23 | 33-36 | **No Rain** Bijapur, Tikota, Telsang, Chadchan | Clear | 03-24 | 13-21 | 32-54 |
| **Hyderabad *** | 18-21 | 32-36 | **No Rain** Hyderabad, Medchal, Rainlaguda. Zahirabad | Clear | 02-18 | 17-26 | 42-68 |

*** Tropical storm conditions possible**

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: 112 days

**b) Expected growth stage of the crop:** - Berry growth to veraison

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

Expected pan evaporation: 4.5 to 7 mm

**Amount of irrigation advised**

For October pruned vineyards, during ripening to harvest stage, apply irrigation through drip @ 7,650 to 10,200 L/acre/day for Nasik, Pune, Sangli and Hyderabad locations and from 8,500 to 11,900 L/ acre/ day for Solapur and Bijapur locations.

In late pruned vineyards (Nov., 2016), during berry development stage, apply irrigation through drip @ 7,650 to 10,200 L/acre/day for Nasik, Pune, Sangli and Hyderabad locations and from 8,500 to 11,900 L/ acre/ day for Solapur and Bijapur locations.

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

**October pruned vineyard**

Ripening to Harvest stage: Apply Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits for this week. 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. Spray Magnesium sulphate in calcareous soil. In case of high yielding vineyards, continue application of Magnesium sulphate @ 25 kg/acre in 3-4 splits.

**November pruned vineyard**

After 8-10 mm berry size, start application of nitrogen in the form of ammonium sulphate @ 25kg /acre in 4 splits in calcareous soil and as urea @ 15 kg/acre in other soils in 3 splits. Follow this up with Sulphate of potash or 0-0-50 @ 25 kg/ acre in 3-4 splits.

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

NAA application @ 20 ppm twice for raisin grapes at 8-10 days prior to harvest reduced the post-harvest berry drop appreciably. Since it is effective to enhance the activity of peroxidase and polyphenol oxidase enzymes, and retained the freshness of grapes longer.

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

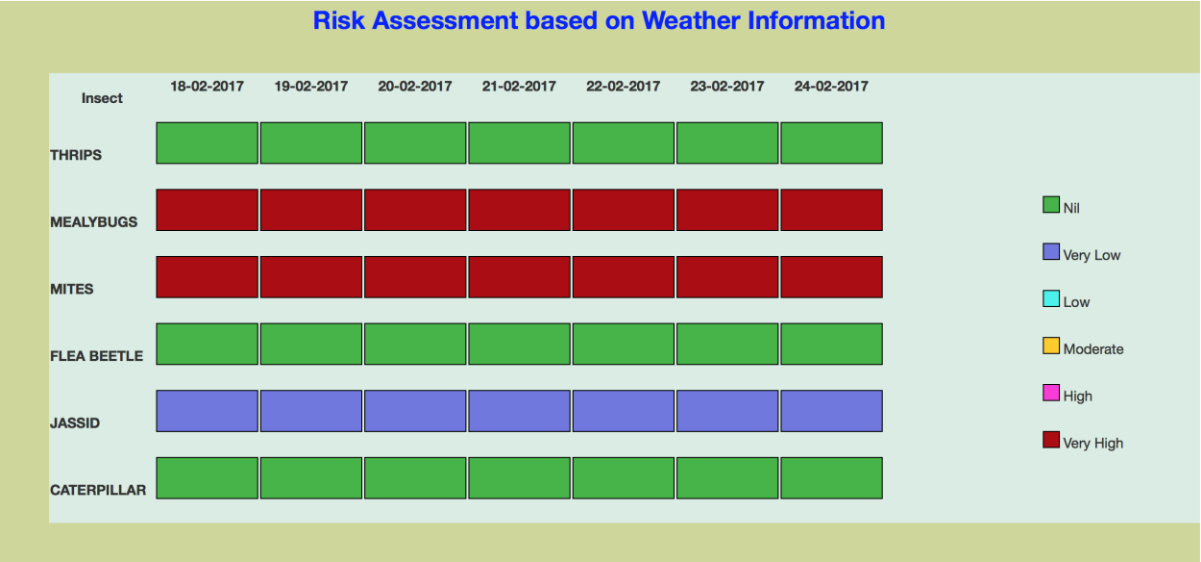
1. **Recut of grafted vines**: During this week, the temperature is expected to increase in different grape growing regions. During the coming week, Bud sprouts after the recut will be faster. Hence, irrigation and nutritional management should be priority. Among the nutrients, nitrogen (Urea, 12:61:0 or 18:46:0) can be the option.
2. **Old vineyard**: Since the temperature is increasing, the mummification or bunch drying will be more visible. This is mainly due to the gap between requirement and supply of irrigation water. Hence, under such condition, the irrigation management needs to be followed properly.

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

| Days after pruning | Risk of diseases | | | |
|---|---|---|---|---|
| | Downy mildew | Powdery mildew | Anthracnose | Others (specify) |
| 109 - 115 | Nil | Nil | Nil | Nil |

Rise in temperature will make the berries susceptible to sunburn. So paper wrapping the berries or covering with shade net should be done. For bioremediation spraying should be done with *Bacillus subtilis*@ 3-4g/L prior to paper wrapping the berries.

## VIII. Insect and Mite management. (Dr. D.S. Yadav and Dr. B.B Fand)




- **Take care of mealybugs and mites in vineyards near to harvesting**
- Look carefully for bunch infestation of mealybugs and to prevent its further spread to healthy bunches, **spot application** of insecticides like Neem based products (@ 3 ml/L), Buprofezin (@ 1.25 ml/L) or *Lecanicilium lecanii* (@ 5 ml or g/L if RH is 60% or more) may be given to control localised infestations. Such selective bunches should be discarded and necessarily not be used for consumption
- **Consider the MRL and PHI of insecticides before use (**Annexure 5 of NRL, ICAR-NRCG, Pune)
- Jet spray of water @ 1000 L./ acre may be helpful in minimising mites infestation

*Avoid use of imidacloprid at flowering period and after 50 days of fruit pruning.

**Fipronil should be used only once in a fruiting season and should be avoided after flowering period

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.