

# 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 (31/05/2018) -- Thursday (07/06/2018)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	24-25	31-38	<p><b>Good Rain – Mon,</b> <b>Light Rain- Tue</b> Nashik, Pimpalgaon Baswant, Palkhed, Ojhar, Dindori, Vani</p> <p><b>Good Rain- Mon - Wed</b> <b>Moderate Rain- Next Thu-</b> Loni, Shirdi</p> <p><b>Good Rain – Mon and Wed</b> Kalwan, Devla, Satana, Niphad</p>	Partly cloudy	11-23	31-50	84-91
Pune	24-25	29-36	<p><b>Good Rain- Mon and Wed</b> <b>Moderate Rain- Tue-Thu</b> Pune, Phursungi, Narayangaon, Junnar</p> <p><b>Good Rain- Mon and Wed</b> <b>Moderate Rain- Tue and Thu</b> Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati,</p>	Partly cloudy to Cloudy	10-19	40-58	83-89
Solapur	24-28	30-39	<p><b>Light Rain – Sat-Tue</b> <b>Moderate Rain- Wed-Thu</b> Solapur, Nanaj, Kati</p> <p><b>Light Rain- Fri,</b> <b>Moderate Rain- Sat-Wed</b> <b>Good Rain- Next Thu</b> Barshi, Vairag , Pandharpur <b>Good Rain- Thu,</b> <b>Light Rain- Sun and Tue</b> Pangri</p> <p><b>Good Rain- Mon and Wed</b> <b>Light Rain- Tue and Thu</b> Osmanabad, Tuljapur, Latur, Ausa</p> <p><b>Light Rain- Mon-Tue,</b> <b>Moderate Rain-Wed-Thu</b> Pandharpur</p> <p><b>Good Rain- Wed- Thu</b> Kasegaon, Atpadi,</p>	Partly cloudy	06-23	42-53	71-83

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
<b>Sangli</b>	22-24	28-36	<b>Moderate Rain</b> – Sun-Mon, Wed <b>Good rain-</b> Tue and Thu Sangli, Miraj, Shirguppi, Kagvad, Arag, Palsi, Vite, Kavathe Mahankal, Tasgaon, Palus, Valva  <b>Modearate Rain-</b> Sun-Thu Shetfal  <b>Light Rain-</b> Fri - Thu Khanapur	Cloudy	08-18	53-62	84-91
<b>Bijapur</b>	23-26	29-37	<b>Good Rain</b> – Sun, Tue,Thu Bijapur, Tikota, Telsang  <b>Light Rain-</b> Sun - Wed Chadchan	Partly Cloudy	07-23	49-61	80-92
<b>Hyderabad</b>	22-25	29-37	<b>Good Rain-</b> Mon-Thu Hyderabad, Medchal,  <b>Moderate Rain-</b> Fri and Mon <b>Good Rain</b> Tue- Thu Zahirabad	Partly Cloudy	04-23	42-64	85-95

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: 45 days

b) **Expected growth stage of the crop:** - Subcane development stage

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

Expected pan evaporation: 7.5 to 10 mm

### Amount of irrigation advised:

1. Shoot growth stage:

- Irrigation water < 1dS/m : apply irrigation through surface drip @ 10,200 to 11,560 L/acre per day during shoot growth stage for Nasik, Pune, Sangli and Hyderabad region and from 11,560 - 13,600 L/acre per day for Solapur and Bijapur region.
- Saline irrigation water (1.1 – 2.0 dS/m): apply irrigation through surface drip @ 12,750 to 14,450 L/acre per day during shoot growth stage for Nasik, Pune, Sangli and Hyderabad region and from 14,450 - 17,000 L/acre per day for Solapur and Bijapur region.
- Mulching the vineyards during this period will reduce the salinity build up in the root zone due to upward movement of saline water from lower soil layer. This will also reduce the irrigation water requirement by another 10%.

2. Fruit bud Differentiation stage:  
Apply irrigation through surface drip @ 4,200 to 4,760 L/acre per day during shoot growth stage for Nasik, Pune, Sangli and Hyderabad region and from 4,760 - 5,600 L/acre per day for Solapur and Bijapur region.
3. All the grape growing regions are forecasted to receive from drizzle to good rains. The irrigation water application should be based upon the growth of the vines. Generally, under wapsa (field capacity) condition of the soil, donot apply irrigation. In general, there will not be any need to provide irrigation in areas which have witnessed continuous rains since last 3-4 days.

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

##### **Shoot growth stage**

1. At shoot growth stage, apply 25 kg urea/ acre in 2 -3 splits after sprouting. In case of vigorous growth of shoots, stop nitrogen application and wait for the growth to stabilize before resuming nitrogen application. In calcareous soils, donot apply urea, instead use Ammonium sulphate @ 40 kg/acre in atleast 3 splits from sprouting onwards till next 10 days. Donot exceed 65 kg urea or 100 kg Ammonium sulphate on per acre basis during shoot growth stage.
2. Apply a total of 10-15 kg Magnesium Sulphate and 10 kg Zinc sulphate per acre around 25- 30 days after pruning
3. In case irrigation water report states sodium content above 100ppm, apply 40 kg SOP/ acre through soil application or 0-0-50 in splits to counter the effect of sodium being supplied through irrigation water. This dose is for the entire shoot growth stage.

##### **Fruit bud differentiation stage**

1. During fruit bud differentiation stage, based upon soil test values, apply 45 – 50 kg phosphoric acid or 250 kg SSP in case the soils are deficient in phosphorus. Phosphoric acid application is desirable in calcareous soils.
2. At 45 DAP, perform petiole test to know the nutrient content of the vines. The petioles should be collected from 5<sup>th</sup> leaf from the base of the shoot counting the leaves even if they have been removed.
3. Keep a close watch on the development of leaf blackening symptoms from the margin. This could be due to sodium toxicity and potassium deficiency. In case the problems are observed, moistened the bund and mix gypsum in the moistened soil @100 kg /acre. In case of calcareous soils apply sulphur @ 75kg/acre. This should be followed by application of SOP @ 25-30 kg/acre or 0-0-50 in splits through drip.
4. Apply 10-15 kg Magnesium Sulphate/ acre between 50-60 days after pruning.
5. In calcareous soils, provide foliar application of Magnesium sulphate (@3g/L) followed by SOP (@ 4g/L).

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

1. During this period use of 6 BA and Uracil has to be done twice after 5 day's interval.
2. Don't give any sprays of above chemicals if it is raining.

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

During the coming week the temperature is supposed to go down with increase in relative humidity. One or two spells of rain will help to increase the humidity in the atmosphere. This will increase the vine vigour. The vineyards under the fruit-bud differentiation stage may face the problem due to increase in gibberellins in the vine. Hence, in the vineyards where vigour is increasing the application of 6-BA, Uracil, 0:52:34 through spray as per the recommended dose will help to reduce fillage problems.

Control of the shoot growth may be considered as major activity during the high humidity condition. To control vigour shoot pinching and application of potassic fertilizers can be the better option at this stage.

Removal of side shoots will help to maintain open canopy thereby reducing the microclimate in the vineyard. During the cloudy weather and old-leaf stage there may be a possibility of powdery mildew. Hence, open canopy will help in reduction in the disease and spread and also enable uniform spray coverage to control the disease.

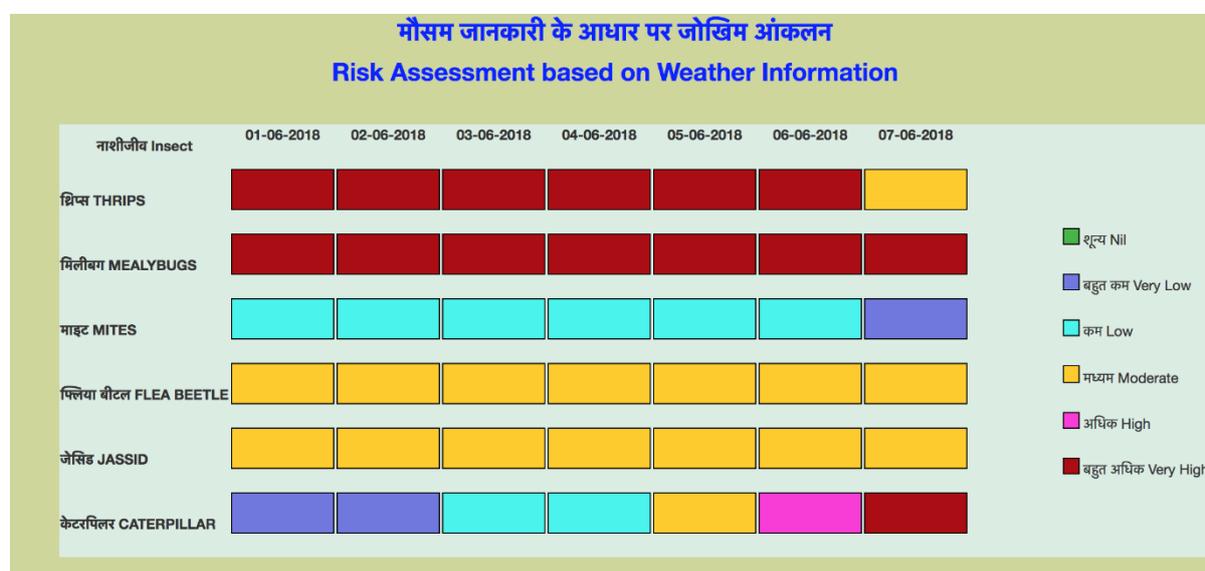
During this stage, repeated sprays of PGR and controlled shoot growth may lead to sprouting of main bud. Under this situation, removal of only small leaves at short tip and control of excess use of PGR to be seriously taken.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
45	Low	Low	Low	—

There is a possibility of rain in all the regions. There can be an increase in incidence of anthracnose for which application of thiophenate methyl @ 1g/L is recommended. As the humidity is on the increase, incidence of downy mildew is a possibility. To control the disease, sprays of potassium salt of phosphoric acid @2g/L+Mancozeb @2g/L may be given. The application of mancozeb will also control bacterial leaf spot incidence, if any.

## 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 thrips and

caterpillars.

- Vineyards may have higher mealybug infestation as well. Buprofezin 25 SC @ 1.25 ml/L water is effective for management of mealybugs.
- Flea beetle and jassid incidence may be moderate and imidacloprid 17.8 SL @ 0.3 ml per litre of water or fipronil 80 WG @ 0.06 gram per litre water are effective.

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](mailto:director.nrcg@icar.gov.in).