

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

(Assumption: Foundation Pruning date - 15/04/2017)

I. Weather Data for the Prevailing Week

Thursday (05/10/2017) - Thursday (12/10/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik*	22-23	29-33	Nashik, Ojhar, Palkhed, Dindori Drizzling - Sat to Tue Niphad, Shirdi, Loni Drizzling - Sat, Wed & Thu Light Rain - Sun to Tue Vani Drizzling - Sat to Mon Light Rain - Tue & Wed Pimpalgaon Drizzling - Mon To Wed Kalwan, Devla Drizzling - Sat Light Rain - Sun to Tue Baswant, Satana – Drizzling - Sat, Mon to Tue Light Rain - Sun	Partly Cloudy	01-14	33-67	69-94
Pune*	22-23	28-30	Pune, Phursungi Drizzling - Sat, Mon, Tue, Thu Light Rain - Sun & Wed Loni Kalbhor, Uruli Kanchan, Yavat, Patas, Supa, Baramati, - Drizzling Sat, Wed, Thu Light Rain - Sun, Mon, Tue Narayangaon, Junnar Drizzling -Sat to Mon, Thu Light Rain - Tue & Wed	Partly Cloudy	00-11	65-70	90-96
Solapur*	23- 24	30-33	Solapur, Nanaj, Kati, Vairag Drizzling - Sat & Sun Light Rain - Mon To Thu Osmanabad, Latur, Ausa, Tuljapur Kasegaon, Atpadi Drizzling –Thu, Light Rain - Sat To Wed Barshi, Pangri, Pandharpur Drizzling - Sat, Light Rain - Sun to Thu	Partly Cloudy	00-14	38-68	77-86
Sangli*	22-23	28-32	Sangli, Miraj, Shirguppi, Kagvad, Arag Drizzling - Fri to Tue, Light Rain - Thu, Wed & Thu Kavatha Mahankal, Palsi Drizzling - Sat & Thu, Light Rain - Sun to Wed Valva, Tasgaon, Khanapur, Vite Drizzling - Thu Drizzling - Sat to Wed Palus Drizzling - Sat, Light Rain - Sun to Wed Shetfal Light Rain - Sun to Thu	Partly Cloudy	01-14	40-67	86-99
Bijapur*	23	29-31	Bijapur, Tikota, Drizzling - Thu, Sun to Tue Light Rain - Wed & Thu Telsang Drizzling - Thu, Sun to Wed Light Rain - Thu Chadchan Light Rain - Sat to Thu	Partly Cloudy	01-16	53-70	94-98
Hyderabad*	22	27-28	Hyderabad Medchal Drizzling Thu & Fri, Thu Light Rain - Sat to Wed Zahirabad Drizzling Thu to Sat, Tue to Thu Light Rain - Sun & Mon	Partly Cloudy	00-14	77-81	95- 100

*Thunderstorm

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..>

III. Nutrition and irrigation management (Dr. A.K. Upadhyay)

Water management

Pan evaporation: 4-6 mm

1. All the grape growing regions are forecasted to receive from drizzle to light rains. 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.
2. During shoot growth stage (fruit pruning season), apply irrigation only if necessary and vines show cupping symptoms. Already most of the areas have received rains. For vineyards raised on heavy soils, there is no need to apply irrigation atleast for 3-4 days as the soil is saturated with water. In case, the vine leaves show cupping symptoms, apply irrigation through drip @ 6800- 10,600 L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 3400 - 5300 L/ acre.

Nutrient management:

1. If Fruit pruning is scheduled in next fortnight, test vineyard soil and irrigation water and plan nutrient management accordingly. Also during planning look into the petiole test carried out in the previous season. Issues like petiole sodium content exceeding 0.5% warrants urgent attention in the coming season.
2. Look for the sodicity problems. Soil, petiole and water reports will give information on extent of build up of sodicity in soil. Apply gypsum to the soil for removal of sodium from the soil exchange complex. In case of calcareous soils, use sulphur for similar purpose. Gypsum/sulphur should be properly mixed in soil. The soil should be moist. After approx. 20 days adequate should be provided to leach sodium from the soil.
3. If soils are calcareous in nature, then apply 50 kg sulphur between the vines in the soil. If calcium carbonate content is more than 15 % apply 100 kg sulphur per acre in the root zone. The sulphur should be properly mixed in the soil for improving its efficacy in taking care of calcium carbonates. The efficacy of sulphur is improved if FYM/ Compost are applied along with sulphur and mixed in the soil.
4. Efforts should be made to reduce the soil pH (pH exceeding 7.6). Apply less decomposed organic matter sources like FYM or green manure like Dhaincha etc. to the soil before pruning. Elemental sulphur @ 25-50 kg/acre could lead to more reduction in soil pH values.
5. Apply FYM/ other organic sources including green manuring atleast 12-15 days before pruning. If possible mix 200 kg Single super phosphate in the FYM and apply in the soil especially in case of sodic soils. Application of organics improves the nutrient and water retention in the root zone and reduces nutrient losses from the profile.

September pruned vineyards (Fruit Pruning Season)

Shoot growth stage:

1. Based upon the soil test value, during shoot growth stage apply urea @ 15kg / acre this week in two splits. If the soil is calcareous, instead of urea apply ammonium sulphate @ 20 kg/ acre in two splits this week. Depending upon the crop vigour, regulate nitrogen application.
2. If the crop is between 5 leaf to prebloom stage, apply Zinc sulphate and Ferrous sulphate @ 15 kg/ acre based upon soil test value. Boron application should be carried out only if soil test value indicates low levels and the irrigation water does not contain boron. If during foundation puning, the petiole test stated that boron was deficient then apply

boron @ 1.5 kg to 5 kg depending upon the soil test value. Apply one kg boron at a time.

3. Apply 10 kg Magnesium sulphate per acre if the crop is between 5 leaf to prebloom stage.
4. If sodicity problem is there, apply 10 kg Sulphate of potash per acre in 2 splits this week.
5. If soils are calcareous, spray Sulphate of potash and Magnesium sulphate @ 2-3g/L depending upon leaf age during prebloom stage.

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

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

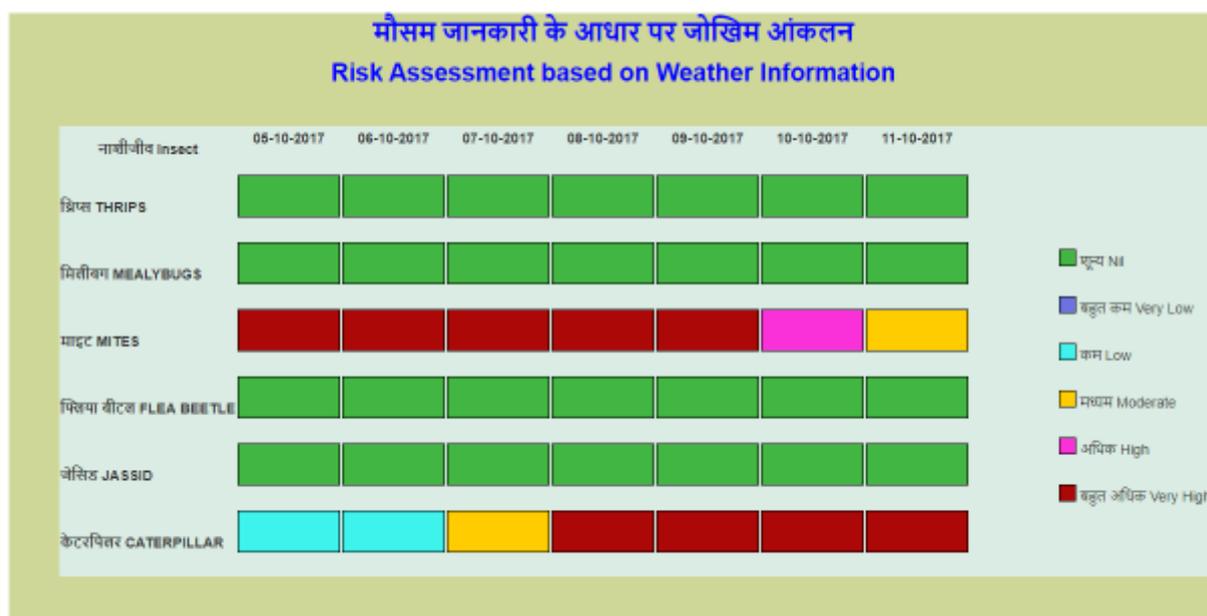
VI. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthraco nose	Others (specify)
158	High	Low	Low	Low bacterial leaf spot

As rains are predicted till 14th of October, control of downy mildew needs to be done. At 'ponga' stage, dusting of Mancozeb @5-6kg/acre should be done. If rains have stopped and there is a possibility of rain-free period, application of CAA fungicides at this stage viz. Dimethomorph@1g/L+mancozeb 75W P@2g/L or Iprovalicarb+propineb @ 2.25g/L or Mandipropamid@ 0.8g/L or Dimethomorph +ametoctradin@0.8g/L or Cymoxanil +Mancozeb WP@2g/L may be done for controlling downy mildew. However, if there is a prolong wet period Potassium salt of phosphorous acid 2-3 g/L + mancozeb 2.0 g/L as tank mix is recommended to control the disease. Use of silicon-based spreader is advised with all fungicide sprays during this stage..

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

Growth stage: Cane maturity and afterwards



- Caterpillar (*Spodoptera litura*) infestation may increase in most of the grape areas as humidity is increasing. For the management of caterpillars, emamectin benzoate 5 SG @ 0.22 g/litre or fipronil 80 WG @ 0.06 g/litre water may be given.
- Mite infestation may also be observed on older leaves. In such cases, foliar application of sulphur 80 WDG @ 2.0 g/litre water may be given.
- Mealybug population and movement of ants may be noticed under the bark. Due to possibility of rains and build-up of relative humidity, plant wash with entomopathogenic fungi viz. *Metarhizium*, *Beauveria* and *Lecanicillium* may be useful for controlling mealybugs and ants.
- Do not spray any broad spectrum insecticides such as chlorpyrifos, dichlorvos, methomyl, profenophos, etc. for mealybug control. Higher humidity will favour development of natural enemies which will slowly kill mealybugs. In case chemical spray is required, prefer buprofezin 25 SC @ 1.25 ml per litre of water for plant wash.
- Incidences of new species of stem borer (red colour larva) may be noticed under bark in Sangali, Solapur, Nashik, Pune, Bijapur grape areas. Remove the loose bark and give good plant wash mainly targeting cordons and main trunk with broad spectrum insecticides, for example, lambda cyhalothrin 5 CS @ 2.5 ml/l.



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.