मौसम पूर्वानुमान आधारित साप्ताहिक सलाह
Weather Forecast Based Weekly Advisory

(Assumption: Fruit Pruning date - 15/10/2017)

I. Weather Data for the Prevailing Week

Thursday (19/10/2017) - Thursday (26/10/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	21-22	30-32	Nashik, Ojhar, Palkhed, Dindori Niphad, Vani , Pimpalgaon Kalwan, Devla, Baswant, Satana **- No Rain** Shirdi, Loni **Drizzling-** Sun & Mon	Partly Cloudy	01-14	33-50	67-95
Pune	21-22	29-32	Pune, Phursungi Loni Kalbhor Uruli Kanchan, Yavat, Patas, Supa, Baramati, Narayangaon, Junnar **Drizzling -** Sun & Mon	Partly Cloudy	01-14	36-54	86-91
Solapur	22- 23	30-32	Vairag Barshi, Pangri, **Drizzling-** Mon**, Light Rain-** Sun Solapur, Nanaj, Kati, Osmanabad, Latur, Ausa, Tuljapur Kasegaon, Atpadi **Drizzling-** Mon Pandharpur **Drizzling –** Sun& Mon	Partly Cloudy	04-16	35-57	63-90
Sangli	19-21	28-32	Sangli, Miraj, Shirguppi, Kagvad, Arag **Light Rain-** Tue Kavatha Mahankal, Palus, Valva, Tasgaon, Khanapur, Vite, Shetfal Palsi **Drizzling-** Mon	Partly Cloudy	04-14	33-64	77-98
Bijapur	21-22	29-30	Bijapur, Tikota, Telsang **Drizzling -** Mon& Tue Chadchan **Drizzling –** Mon	Partly Cloudy	04-17	35-54	65-94
Hyderabad	20-23	27-31	Hyderabad, Medchal, Zahirabad **Drizzling -** Mon	Partly Cloudy	01-14	45-66	79- 97

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: 6 days

b) Expected growth stage of the crop: - Bud swollen stage

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

Water management

Pan evaporation: 5-6 mm

1. Generally, under wapsa (field capacity) condition of the soil, donot apply irrigation.
2. During shoot growth stage (fruit pruning season), for vineyards raised on heavy soils, there will be no need to apply irrigation atleast for 3-4 days as the soil is saturated with water unless the leaves show cupping symptoms. Apply irrigation in light soils. If required apply irrigation through drip @ 8500- 10,600 L/ acre/ day. Further, in case vigour is more than desired, then reduce irrigation water application by half to 4200 - 5300 L/ acre.
3. If the rootzone is saturated then donot apply any fertilizer. Growth will be slow, donot worry as and when the soil comes into field capacity (wapsa), root activity will increase and the growth will progress. After that only fertilizer is required.

Nutrient management:

Pre-pruning:

1. If the soils are sodic then 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.

2. 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.

3. 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.

4. 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.

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)

Work to be done at 3 leaf stage:

In most of the vineyards, the panicles may result into filage due to excess rain in recent times. To avoid filage do not apply GA_3 or any other growth stimulants at pre-bloom stage. Once the bunch settles then use of GA3 may be started.

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

1. Old vineyard:

As per the weather prediction, temperature in the atmosphere will be more ideal for photosynthesis. Hence, the shoot thinning after the bunch emergence, removal of side shoots and also extra shoots to be given priority. This will help for proper photosynthesis. In the vineyards of pre-bloom stage, removal of excess bunches are to be considered important. This will help to maintain source: sink relationship. The leaf requirement above the bunch should be fulfilled before the berry set. Hence, under the condition of reduced growth, nitrogenous fertilizer should be applied.

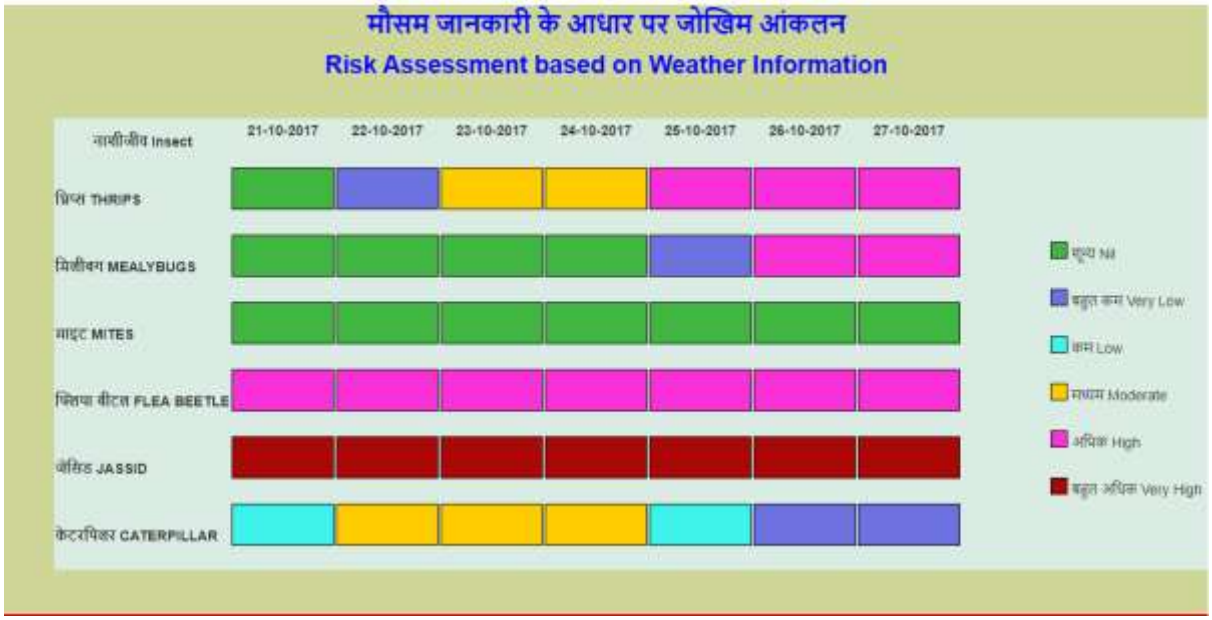
VI. Disease management (Dr. S.D. Sawant and Dr. Sujoy Saha)

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
6	High	Low	Medium	Medium Bacterial leaf spot

Application of CAA fungicides at this stage viz. Dimethomorph 50WP@1g/L+mancozeb 75WP@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. Application of potassium salt of phosphoric acid @ 4g/L + Mancozeb mancozeb 75WP@2g/L will also give a good control of the disease. If the vines are in 'ponga' stage, dusting of Mancozeb @5-6kg/acre should be done. As anthracnose is also prevalent in newly emerging shoots, application of Thiophenate methyl 70 WP is advised. Incidence of bacterial leaf spot is also on the rise and application of streptocycline @ 1g/10 litres can be done. In areas where canopy growth is heavy application of triazoles may be done which will not only arrest the growth but also give a protection against powdery mildew, if any. Use of silicon-based spreader is advised with all fungicide sprays during this stage.

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

Fruit pruning growth stage: Sprouting



- Preventive foliar spray of imidacloprid 17.8 SL @ 0.3 ml per litre of water may be given during sprouting for managing thrips, flea beetle, jassids and mealybug shoot malformation.
- Remove loose bark and give preventive plant wash with buprofezin 25 SC @ 1.25 ml/litre water for mealybugs, if has not been done after fruit pruning yet. At 15 days interval, plant wash with entomopathogenic fungi viz. *Metarhizium, Beauveria* and *Lecanicillium* may be useful for controlling mealybugs and ants.

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.