

मौसम पूर्वानुमान आधारित साप्ताहिक सलाह

Weather Forecast Based Weekly Advisory

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

I. Weather Data for the Prevailing Week

Thursday (10/11/2016) - Thursday (17/11/2016)

Location	Temperature		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	16-19	32-33	No Rain Nasik, Ojhar, Pimpalgaon Baswant, Vani, Palkhed, Dindori, Shirdi, Loni, Rahata, Niphad, Kalwan, Devla, Lasalgaon, Satana.	Clear	03-16	16-29	49-53
Pune	17-20	32-33	No Rain Pune, Phursungi, Loni Kalbhor, Uruli Kanchan, Yavat, Rahu, Patas, Pargaon, Supa, Baramati, Narayangaon, Junnar.	Clear	03-19	22-37	51-67
Solapur	19-23	33-34	No Rain Solapur, Nanaj, Kati, Atpadi, Vairag, Pandharpur, Kasegaon, Barshi, Pangri, Kari, Latur, Ausa, Osmanabad, Tuljapur.	Clear	06-19	15-32	47-61
Sangli	18-23	33-34	Light Rain (Tue-Wed) Sangli, Miraj, Shirol, Arag, Shirguppi, Kagvad. No Rain Kavate Mahankal, Palus, Valva, Palsi, Shetfal, Vite, Khanapur	Clear	06-23	20-39	49-70
Bijapur	18-23	32-33	Light Rain (Tue-Wed) Bijapur, Tikota, Telsang. No Rain Chadchan	Clear	08-23	20-37	54-79
Hyderabad	17-21	31	No Rain Hyderabad, Medchal, Zahirabad, Rainlaguda.	Clear	02-14	24-51	69-57

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: 8 to 25 days

b) Expected growth stage of the crop: Ponga stage to 5-leaf stage

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

Expected pan evaporation: 4 to 6 mm

Amount of irrigation advised

During shoot growth stage, apply irrigation through drip @ 6800 L/ acre/ day for Nasik, Pune, and Hyderabad regions and from 8500 to 10,200 L/ acre/ day for other regions. Further, in case vigour is more than desired, then reduce irrigation water application by half to 3400 L/ acre/ day for Nasik, Pune and Hyderabad regions and 4250 L/acre/ day for other regions. Still if you are not able to control the vigour, stop irrigation till such time vigour is controlled.

During Flowering to setting stage, apply irrigation through drip @ 2800 L/ acre/ day for Nasik, Pune and Hyderabad regions and from 3360 L/ acre/ day for other regions. Further, in case vigour is more than desired, then reduce irrigation water application by half to 1400 L/ acre for Nasik, Pune and Hyderabad regions and 1680 L/acre for other regions. Skip irrigation in Sangli and Bijapur on 14th and 15th Nov as rains are forecasted on 16-17th Nov.

During Berry growth stage, apply irrigation through drip @ 6800 L/ acre/ day for Nasik, Pune, and Hyderabad regions and from 8500 to 10,200 L/ acre/ day for other regions. .

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

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 pre bloom 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 pruning, the petiole test stated that boron was deficient then apply boric acid @ 1.5 kg to 5 kg depending upon the soil test value. Apply one kg boric acid 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. Do not apply any nitrogen based fertilizer from 3-4 days before Flowering to Setting stage to avoid problems of kooj (inflorescence necrosis). Apply 5 kg Phosphoric acid in two splits this week.
6. After Berry setting, continue initially with Phosphoric acid application @ 7.5 kg in two splits this week.
7. Spray Calcium @ 2g Calcium Chloride or 0.5 g Ca chelate per litre at berry size of 2-4 mm and 6-8 mm.

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

By this time, flowering stage must have arrived. During flowering, application of GA₃ may be undertaken to form elongated berries in a bunch. One should not be in much hurry to get elongated berries because if application of GA₃ is more frequent and at high concentration, it results in 'coiling' disorder. Hence, PGR's particularly GA₃ must be applied when it is needed at appropriate stage. For berry length as to form elongated berries, application of GA₃ at 10, 15 and 20 ppm during flowering at alternate days must be more beneficial. For berry thinning (Chemical thinning) GA₃ must be used at 40 ppm at 50% flowering stage. If proper rachis length is achieved the application of 40 ppm GA₃ may be avoided. Otherwise, more thinning results in retention of less berries in bunch. Hence one must be very careful to get good results from use of GA₃.

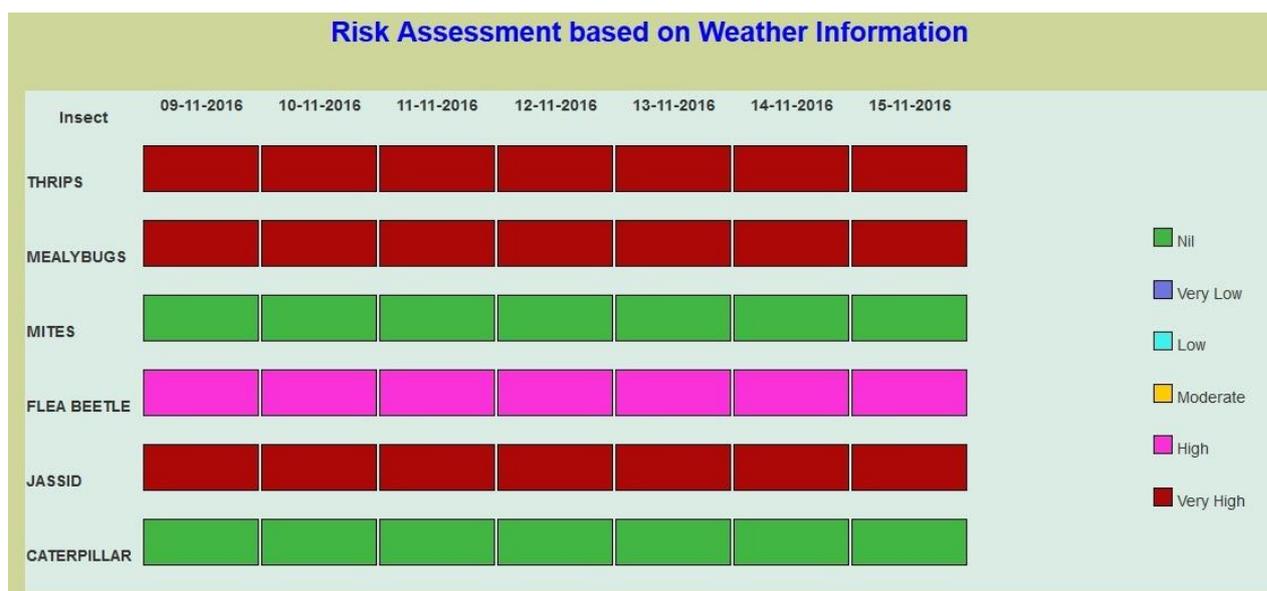
VI. Canopy management (Dr. R.G. Somkuwar)

1. Under the condition of 10-12 leaves above the bunch, shoot tip pinching to be done. This will maintain the balance between source and sink.
2. Do not use excess plant growth regulator as well as sticker/spreader under dry weather condition while dipping the bunch. This will result into either coiling of bunch or development of knot on the bunch peduncle and rachis.
3. In case of grafted vines, tip the growing shoot (meant for trunk development) at 7-8 leaf. This method is called “stop n go” method. This will help to develop strong trunk with reserve food material.

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

If the vines stand at a 5-7 leaf stage or above application of Difenoconazole @0.5ml/L or tetraconazole @ 0.75 ml /L or hexaconazole @ 1ml/L or flusilazole @ 12.5ml/100L should be done with an objective to suppress vegetative growth. In vineyards at fruit setting stage, Fosetyl-Al 80WP@ 4 g/L or Potassium salt of phosphorus acid @ 4 g/L as a tank mix with mancozeb 75WP@2g/L or propineb 70WP @3g/L may be sprayed. In Nashik region preventive application mancozeb 75WP@2g/L should be done but it will be judicious not to use any CAA fungicides at this stage viz. Dimethomorph@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 as it might lead to residue detection(but it is expected to be below MRL).

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



A. Pest risks:

- High risk of infestation of thrips, jassids and flea beetle on actively growing tender shoots and leaves.
- High risk of mealybug infestation on vines due to relatively low RH and warm weather.

B. Safer options for management:

- Installation of light traps will be helpful in controlling jassids in particular and moths in general. Run the light traps for 3 hours daily, during evening between 7.00 pm – 10.00 pm for maximum catch efficiency.

- Application of entomopathogenic fungi, *Beauveria bassiana* + *Lecanicillium lecanii* (2×10^8 spores/ml) @ 5.0 + 5.0 mL/L twice at fortnightly interval may help to check the population of thrips, mealybugs and jassids.

C. Need based spraying of insecticides when high infestation occurred:

1. *Imidacloprid 17.8 SL @ 0.3 ml/lit for control of thrips, flea beetle, mealybugs and jassids
2. **Fipronil 80 WDG 0.06 g/lit will be helpful to control thrips, jassids, flea beetle and caterpillars
3. Lambda cyhalothrin 5 EC @ 0.5 ml/lit will be helpful against thrips, jassids, caterpillars
4. Emamectin benzoate 5 SG @ 0.22 g/lit against thrips and caterpillars

*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.