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 (22/06/2017) - Thursday (29/06/2017)

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Nasik	23-24	26-31	Nashik -Sat & Wed**drizzling** Shirdi, Loni, Rahata, Pimpalgaon - Sat to Thu **drizzling** Ojhar, Palkhed, Vani Dindori- Sat **drizzling,** Wed, Thu **light rain** Niphad- Thu To Fri, Sun to Mon, Thu **drizzling,** Sat, Tue & Wed **light rain** Kelvan- Sat,Sun **drizzling,** Tue to Thu **light rain** Devla, Satana - Thu to Thu **drizzling**	Partly - Mostly Cloudy	10-29	61-83	90-96
Pune	21-22	24-29	Pune, Phursungi - Thu, Fri **drizzling,** Sat to Thu **light rain** Loni Kalbhor, Uruli Kanchan, Patas Yavat, Supa, Baramati, Narayangaon, Junnar - Sat to Wed **drizzling,**	Partly Cloudy	10-27	70-88	96-98
Solapur	22-23	29-32	Solapur, Nanaj, Vairag, Kati - Sat to Wed **drizzling** Tuljapur, Osmanabad - Fri, sat, Thu **drizzling,** Wed **light rain** Latur, Ausa - Fri to Mon, Thu **drizzling,** Tue & Wed **light rain** Pandharpur- Fri to Wed **drizzling,** Kasegaon- Sat to Thu **drizzling,** Atpadi- Thu **drizzling** Pangri, Barshi- Sat to Wed **drizzling,**	Partly Cloudy	11-29	61-69	89-96
Sangli	22-24	28 - 32	Sangli- Fri to Sat, Wed to Thu **drizzling,** Sun to Tue **light rain** Kavatha - Tue and Thu **drizzling,** Palus, Valva, Tasgaon - Sat to Thu **drizzling** Miraj, Shirguppi , Kagvad, Arag Thu to Sat **drizzling** Sun to Thu **light rain** Shetfal, Palsi, Khanapur, Vite - Thu to Thu **drizzling**	Partly Cloudy	13-34	56-70	88-90
Bijapur	22-23	29-32	Bijapur, Tikota, Telsang, Chadchan - Thu to Thu **drizzling**	Partly cloudy	14-35	57-67	89-92

Location	Temperature (°C)		Possibility of Rain	Cloud Cover	Wind Speed (Km/hr)	R H%	
	Min	Max				Min	Max
Hyderabad	22-24	29-33	Hyderabad- Thu to Tue, Thu **drizzling,** Wed **light rain** Zahirabad- Thu to Thu **drizzling** Medchal- Thu to Sat, Mon to Tue, Thu **drizzling,** Sun & Wed **light rain**	Partly- Mostly Cloudy	10- 27	56-70	88-90

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: 67 days.

b) Expected growth stage of the crop: 45-65 days-Fruit differentiation – Subcane development.

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

Expected pan evaporation: 4 to 6.5 mm

Amount of irrigation advised:

1. All the grape growing regions are forecasted to receive from drizzle to moderate rains. The irrigation water application should be based upon the growth of the vines. In case rain exceeds 5 mm on a given day, irrigation water application can be skipped for that day. Generally, under wapsa (field capacity) condition of the soil, do not apply irrigation.
2. Sometimes heavy rains are received in very short time period. Eventhough the upper soil layer of few cms may be wet but water do not penetrate below. Vineyards need to be irrigated under such conditions. Monitor leaf curling/cupping symptoms for moisture stress in case of doubt.
3. In case of April pruned vineyards, the vines are at Cane maturity and Fruit Development stage. Provide irrigation through drip @ 3000 - 4000 litre/ha/day.
4. In case of Late pruned vineyards (May), the vines are in Fruit bud differentiation stage. Provide irrigation through drip @ 3000-4000 litre/ha/day in case no rains are received. Any deficit during this stage could reduce the vine yield by 8- 10% during Fruit pruning season.

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

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 5th 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. In case of calcareous soils where acute iron deficiency is observed, repeatedly spray 2-3g/L Ferrous sulphate two to three times at 4-5 days interval followed by 15-20 kg/ acre Ferrous sulphate application through drip. The fertigation dose should be split into atleast 3 doses of 5kg each.

Cane maturity and Fruit bud development stage:

1. Potassium application is required from Cane maturity stage onwards. Approx. 64 kg of sulphate of potash (soluble grade) should be applied in this stage. Split the application into atleast five doses to reduce the leaching losses of the potassium. Apply 15 kg SOP in two – three splits during this week.
2. The rains have started. The vineyards where sodicity problems are there, apply gypsum to the soil for removal of sodium from the soil exchange complex. In case of calcareous soils, use sulphur for similar purpose.
3. In case of calcareous soils where acute iron deficiency is observed, repeatedly spray 2-3g/L Ferrous sulphate two to three times at 4-5 days interval followed by 15-20 kg/ acre Ferrous sulphate application through drip. The fertigation dose should be split into atleast 3 doses of 5kg each.

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

Nil.

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

1. New vineyard

With the increase in relative humidity (above 80%) in the atmosphere, the new growth will be at faster rate. This will suppress the fruit bud differentiation. To avoid this, the shoot tip pinching only needs to be performed. In addition, since the weather is favorable for vegetative shoot growth development, the second instalment of cordon development can also be taken up. The application of recommended plant growth regulators may be added for fruit bud differentiation. Spray of these PGR's can be taken only after the shoot is of 8-9 leaf stage in case of second instalment of cordon development.

2. Old vineyard

With the onset of monsoon, the vegetative vigor will be more. In case of timely pruned vineyard, the cane maturity will be delayed. Under such situation, the shoot pinching, application of potash as per the recommendations and control of irrigation will help to advance the cane maturity.

In case of shoot pinching and application of growth retardants, the shoot growth will stop. In addition, if the side shoots are removed, the sprouting of main bud may be experienced by the growers. Under such condition, allow the shoot growth for another 3-4 leaf and use the fertilizers containing nitrogen so that the bud will not sprout.

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

Days after pruning	Risk of diseases			
	Downy mildew	Powdery mildew	Anthracnose	Others (specify)
67	Moderate	Low	Low	Low bacterial leaf spot

In the later half of this week, there is a probability of heavy rains and temperature might dip below 30^0C and infection of downy mildew may be seen. Application of potassium salt of phosphoric acid @2g/l +Mancozeb @2g/L for downy mildew control is recommended in case of late pruned vines. For timely pruned vines, application of copper hydroxide @ 2.5-3g/L is advised as a prophylactic action against downy mildew. Powdery mildew might also be visible in the early part of the week and application of sulphur 80WDG @ 2g/L is advised.

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

Caterpillar (*Spodoptera litura*) infestation may increase in most of the grape areas as humidity is increasing. Thrips incidence may be higher in vineyards where sub-cane process has not been completed. For the management of both caterpillars and thrips, 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 areas not experiencing good rainfall. In such cases, foliar application of sulphur 80 WDG @ 2.0 g/litre water may be given.

Due to build-up of relative humidity, plant wash with entomopathogenic fungi viz. *Metarhizium*, *Beauveria* and *Lecanicillium* may be useful for controlling mealybug and stem borer adults.

Do not spray any broad spectrum insecticides for mealybug control as higher humidity will favour development of natural enemies which will slowly kill mealybugs.