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 (13/07/2017) - Thursday (20/07/2017)

| Location | Temperature (°C) | | Possibility of Rain | Cloud Cover | Wind Speed | R H% | |
|-----------|------------------|---------|---|------------------|---------------|-------|--------|
| | Min | Max | | | (Km/hr) | Min | Max |
| Nasik | 22-23 | 25-27 | Nashik -Mon - Tue drizzling, Thu, Sun, Wed, Thu | Cloudy | 10-24 | 80-88 | 96-97 |
| | | | light rain, Fri, Sat moderate rain Shirdi, Loni, Rahata - Thu to Thu drizzling | | | | |
| | | | Pimpalgaon- Mon – Tue drizzling , Thu, Sun, Wed, Thu light rain , Fri, Sat Moderate rain | | | | |
| | | | Niphad- Sun, Wed drizzling , Thu to Fri & Mon, Tue, Thu light rain Palkhed, Ojhar, Vani. Dindori- Mon – | | | | |
| | | | Tue drizzling , Thu, Sun, Wed, Thu light rain , Fri, Sat light rain Kelvan, Devla- Sat, Sun, Wed, Thu | | | | |
| | | | drizzling, Thu, Fri, Mon, Tue light rain Satana- Thu, Sat, Sun, Tue to Thu drizzling, Fri, Mon light rain | | | | |
| Pune | 21-22 | 24-26 | Pune, Phursungi,- Thu to Thu light rain Uruli Kanchan, Loni Kalbhor, Yavat, | l light rain | 11-23 | 85-89 | 99-100 |
| | | | Patas, Supa, Baramati, Junnar - Thu to Thu drizzling Narayangaon, , - Thu to Thu light | | | | |
| Solapur | 23 | 29-31 | | Mostly Cloudy | 13-27 | 56-70 | 86-94 |
| | | | Pangri - Thu to Thu drizzling Latur, Ausa- Thu, Sat to Tue, Thu drizzling Fri, Wed light rain | | | | |
| | | | Tuljapur- Fri to Mon, Wed, Thu drizzling, Thu, Tue light rain Pandharpur, , Barshi - Thu to Tue, Thu drizzling, Wed light rain | | | | |
| Sangli | 22 - 23 | 28 - 30 | Sangli, Miraj- Thu to Tue, Thu drizzling, Wed moderate rain Kavatha, Palus, Valva, Tasgaon, Shetfal, Palsi, Khanapur, Vite - Thu to Thu drizzling | | 16-34 | 61-74 | 87-92 |
| | | | Shirguppi, Kagvad, Arag - Thu to Mon drizzling, Tue,Thu light rain, Wed moderate rain | | | | |
| Bijapur | 23 | 29-32 | Bijapur, Tikota, Telsang, Chadchan - Thu to Thu drizzling | Partly cloudy | 19-34 | 53-66 | 84-91 |
| Hyderabad | 23 | 29-31 | Hyderabad- Thu to Thu drizzling | Mostly Cloudy | 10- 23 | 63-79 | 85-98 |

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|----------|------------------|-----|------------------------------------|----------------|---------------|------|-----|
| | Min | Max | | | (Km/hr) | Min | Max |
| | | | Medchal – Thu to Tue drizzling Wed | | | | |
| | | | & Thu light rain | | | | |
| | | | Zahirabad - Thu to Tue drizzling | | | | |
| | | | Wed & Thu light rain | | | | |

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: 88 days.

b) Expected growth stage of the crop: 61-90 days-cane maturity

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

Pan evaporation: 2 - 4 mm

Irrigation

The crop is under Cane maturity stage and Fruit development stage. Rains and drizzle is predicted. Do not irrigate if soil is under wapsa condition. In case irrigation is required apply between 2000 to 4500 L / acre irrigation. Observe the vine growth before application.

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 at least 3 doses of 5kg each

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

Water logging in vines should be prevented so as to discourage the development of aerial shoots.

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

Following practices to be followed

Old garden:

- 1. Shoot pinching and removal of side shoots
- 2. Removal of bark from the cordon. This will help to reduce the humidity thereby reducing the disease incidence
- 3. Training of shoots on the wire will also help for uniform cane maturity and required spray coverage.
- 4. The vineyard after 80 days from pruning should be sprayed with Bordeaux mixture (0.75%) *Rootstock garden*
- 1. Shoot thinning by retaining 3 to 4 shoots will help for good food storage
- 2. Removal of the side shoots will help to achieve 8 to 10 mm shoot required for grafting

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

| Days after | Risk of diseases | | | | | |
|------------|------------------|------------------------------|----------|-------------------------|--|--|
| pruning | Downy mildew | Powdery mildew Anthracnose | | Others (specify) | | |
| 81 | Moderate | Moderate | Moderate | Low Bacterial leaf spot | | |

There is no probability of heavy rains except light drizzles and overcast conditions which will favour powdery mildew. Application of sulphur 80WDG @ 2g/L or dusting of sulphur 80%WG @ 5-6 kg /acre should be done for the control of powdery mildew. In Nashik and Junnar area, there is a probability of rains on Fri-Sat and sprays for downy mildew needs to be undertaken viz. application of potassium salt of phosphoric acid @2g/l +Mancozeb @2g/L. In Latur, Osmanabad and Solapur region where the temperature is slightly high, bacterial spot may be seen and application of mancozeb @ 2g/L will reduce the infection.

VII. 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.
- 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.
- 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.
- 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.