

ICAR-National Research Centre for Grapes, Pune – 412 307

Follow up visit to guide farmers on flood affected vineyards of Walwa (Dist. Sangli)

The scientists of ICAR-NRC Grapes had visited flood affected vineyards in Nagthane and Walwa on 16th and 20th August, 2019 and guided the growers accordingly. Subsequently, the team of scientists (Dr R.G. Somkuwar and Dr A. K. Upadhyay) who were already in Palus, were directed to visit Walwa and guide the growers based upon the request from Sh. Chandrakant Landge, President and Sh. Sanjay Bargale, Secretary, MRDBS (Sangli division) on 26.08.2019 after Palus visit. The scientists visited the vineyards of following growers and guided them on the strategies for successful management:

- 1) Sh. Rajaram A. Deshmukh (Village: Aamnapur).
- 2) Sh. Sampat Mane, (Village: Walwa)
- 3) Sh. Mahadeo Mane (Village: Walwa)
- 4) Sh. Kiran Zende (Village: Walwa)
- 5) Sh. Pravin Zende (Village: Walwa)
- 6) Santosh Khandagale (Village: Walwa)
- 7) Sh. Uday Sawant (Village: Walwa)

The observations made and suggestions given are as follows:

- A) **The vineyard affected by flood:** The vineyard at Aamnapur was submerged for about 36 hours. The water from the vineyard (var: Sarita Seedless) was removed using pump. Since the vine was submerged for a short time, the leaves were intact. However, the flow of water damaged the leaf on one side of the canopy and it experienced leaf fall. The grower was advised to spray water (2-3 times) to remove the silt deposition on canopy. As the soil was saturated, application of fertilizer should only be carried out after the soil reaches field capacity (wapsa) and the roots become active. The new growth on lateral end of the cane was observed. The farmer was advised to maintain to about 5-6 leaf to avoid the bud sprout on mature portion of a cane.
- B) **Pruned vineyard:** In these vineyards, fruit pruning was done and the vines were in bud sprouting stage. The growers were advised the following:
 - a) **Loosening of bunds:** The root zone became more compact due to heavy flood in the vineyard. The soil was overlain with silt deposits. Hence, the growers were advised to loosen the bunds for early root development.

- b) Application of hydrogen cyanamide:** It was expected that the bud sprouting will be early and faster since the leaf fall was complete. However, due to variation in cane diameter, the bud sprouting was irregular. The buds on thin canes sprouted early while those on the thick canes did not sprout. This will lead to uneven bunch emergence. Hence, the growers were advised to use 40 ml/L concentration of hydrogen cyanamide. In the cases where the pruning was done but the sprouting had not started, the spray of hydrogen cyanamide was also recommended.
- c) Decision on pruning time:** Approximately 800 growers had already pruned their vineyards. To avoid glut in market, the growers were advised to delay pruning in case defoliation was less and leaf attachment was good. The lateral buds should be allowed to grow. This will help to delay bud sprouting on the mature canes. Further, under the condition of immature canes, new growth on lateral end of the shoot to be encouraged to about 5-6 leaf stage and then pinched to initiate cane maturity. Foliar spray of potassium (@5g/L for full canopy) and soil application @ 20 kg sulphate of potash/acre was also suggested.
- d) Limiting the Crop load:** In the fruit pruned vineyards, after the sprouting, the bunch emergence was satisfactory in the vineyards visited. However, the bunch load needed to be maintained to a certain limit considering the severity of leaf fall, submergence of vineyard, age of the vine, etc. Higher crop load could impair the vine health. The growers were advised to maintain limited bunches per vine for the coming season and concentrate more on vine health.
- e) Disease management:** The increase in humidity in the vineyard will increase the chances of inoculum build up. This may result into leaf fall and delayed cane maturity. Hence, the growers were advised to protect the vineyard from downy mildew, powdery mildew and rust. Use of biologicals will help to check the inoculum load of these diseases for fruit pruning.

