

Grapes

Disorders

Water Berries :

Waterberry is associated with fruit ripening and most often begins to develop shortly after berry softening. The affected berries become watery, soft, and flabby when ripe. They are almost normal in size but their flesh is not firm. They shrivel and dry by the time of harvest. Such berries mostly confine to the tip of the main rachis or its branches. This disorder occurs due to excessive cropping and inadequate nourishment available to all the berries in a cluster. Excessive irrigation and nitrogenous fertilizers should be avoided during berry development to reduce the water-berry formation.

Cluster-Tip Wilting :

Thompson Seedless variety is more susceptible to this disorder. Light brown lesions on the apical end of the rachis affect the conductivity of the rachis. This results in shriveling and drying of the rachis at the tip of the bunch. In severe cases the tip of the bunch up to 30-40% dries up completely leaving hard small and light brown berries at the tip.

Cluster pinching or berry thinning is recommended to reduce excessive crop load on the vines. Ensuring adequate irrigation during the berry development and protection bunches from direct sunlight also help in reducing the incidence of cluster-tip wilting.

Shot Berries :

Shot berries are smaller, sweeter, round and seedless as compared to normal berries. They are formed due to delay in pollination and fertilization of a few flowers or due to inadequate flow of carbohydrates into the set berries. Boron deficiency, incorrect stages of GA application and girdling are the known reasons for shot-berry formation. Boron or Zinc deficiencies should be corrected. Similarly application of GA at proper stage should be ensured.

Pink Berry :

This is a serious problem of Thompson Seedless in Maharashtra. As the bunch approaches maturity some berries in the bunch develop pink colour at random. The pink colour changes to dull red colour rendering the bunch unattractive. Incidence of pink berries is low in the early season crop and increases with the rise in temperature late in the season. Indiscriminate use of Etherel for berry colouration can also cause this disorder.

Bud and Flower Drop :

This phenomenon has been reported from North India in the states of Punjab, Haryana and Rajasthan. Flowers drop from the clusters just before and after opening. The buds drop on shaking the panicle. Excessive bud and flower drop results in reduction of yield. Association of a number of factors such as atmospheric temperature, high phosphorus and total salt contents of the soil has been reported as the factors causing this malady. Therefore, judicious irrigation practices and canopy management practices to improve ventilation during the flower development helps to minimize the flower bud and young berries drop.

Poor Cane Maturity:

Poor cane maturity is a common phenomenon observed in peninsular India. In this type of disorder shoots fail to mature and their barks remain green until late in autumn. Such shoots turn pink-red due to low temperature in winter. It is more serious in vineyards, where the shoot growth is vigorous and dense; vines are planted closely and excess nitrogen and irrigation are provided. Previous seasons crop load was also found to affect the shoot maturity. Judicious shoot pinching to check excessive vegetative growth; shoot thinning 30 days after summer pruning to prevent mutual shading of the shoots and promote light interception are some of the suggested remedial measures. Avoiding excess irrigation and nitrogenous fertilizers during 40-70 days after back pruning helps to overcome cane immaturity.