

Scavenging fruit flies in damaged grape berries and how to manage them

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If the grape berries get damaged due to berry cracking, mechanical damage, micro-cracks, holes made by other insects, etc. at the time of ripening, fermentation of grape juice inside berries may start due to microbial infection. The fermenting berries emit a smell which attract scavenging fruit flies towards them. These fruit flies lay eggs in the exposed berry pulp and the maggot feed inside. The scavenging fruit flies generally do not lay eggs on intact berries, however, they may lay eggs on overripe berries sometimes. The maggots generally feed on the same berry where the egg has been laid. However, if any berry is touching the infested berry, the maggots can infest that berry also. Fully grown maggots come out of the berries and search for dry area for pupation. They mostly pupate in the soil from where the adult fruit flies emerge and infect other berries. The fruit fly life cycle is of 7-15 days depending on the temperature. The adult fruit flies become sexually mature to reproduce in about two days after emergence from pupa. They can live for about 40-50 days and can lay about 500 eggs in several batches. While laying eggs, the fruit flies may also infect the berry pulp with several microorganisms responsible for causing rotting in grapes.

All the damaged berries should be removed from the grape bunches. These berries should be destroyed by burying them minimum two feet deep in the ground away from the vineyards. It will reduce the fruit fly population in the vineyard. Ripe banana can act as a good attractant for these scavenging fruit flies. Therefore, banana traps can be made and installed at the rate 5 per acre. To make a banana trap, take a container and put a ripe banana inside it. Pour 2-3 drops of spinosad 45 SC on the banana. Cover the mouth of the container with inverted paper-cone keeping a small hole at the bottom for fruit flies to enter. The berry cracking of grapes should be managed by following suitable viticultural practices.



Fruit fly adults on grapes



Healthy berry in touch with infested berry