

Insecticides Increase the Value of Avocados by 40%

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California is the second largest producer of avocados in the world, behind Mexico, and produces about 10% of the world's supply. California avocados are marketed almost entirely through the fresh produce market. At one time, a significant amount of blemished fruit grown in California was processed into guacamole products. In the past decade, however, all of the major avocado processors have turned to avocados grown in Mexico as the source of avocado pulp for their processed products. For this reason, it is critical for California avocado growers to minimize blemishing of the fruit they grow. Blemished avocados suffer a significant discount in the produce marketplace.



High-quality avocados

Historically, the production of avocados in California required little usage of insecticides. Avocado pests were generally kept under commercially acceptable control by a variety of beneficial insects, diseases, and weather conditions. Since the introduction of avocado thrips in 1996, insecticide use in California avocado orchards has increased dramatically.



Avocado thrips

By May 1999, 95% of California acres were infested with avocado thrips [1]. Thrips are a major pest in California; both larvae and adults feed only on developing avocados [2]. Feeding scars develop and radiate towards the top of the fruit [3]. Scarring can be severe enough to render the entire fruit surface brown. Fruit that are entirely scarred can continue to grow, and the flesh of the fruit is a healthy green. However, even partial fruit scarring results in downgrading in packinghouses because of cosmetic damage [1]. The amount of fruit downgraded due to an untreated thrips infestation can be as high as 95% [1]. Fruit are downgraded to a lesser quality equivalent to a 40% decrease in price [4].

Insecticide use reduced fruit scarring to 0.6% in experiments. Insecticide control lasts for eight weeks and kills 80-90% of the thrips [5]. Treating with insecticides has effectively eliminated quality damage for producers [6].



Avocados damaged by thrips

References

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