

How will fruit producers who adopt ecologically based management principles be better equipped to survive and prosper in the fruit business? Many issues challenge fruit production today. Using ecologically based management is not a silver bullet, but it does offer sustainable options.

Apple producers, for example, currently face poor prospects because of worldwide overproduction and low prices. In addition to weak markets, they have suffered weather-related disasters such as windstorms, drought and fire blight epidemics. They need lower costs if they are to continue as commercial commodity producers. Management strategies that control insects or diseases with fewer pesticide applications can lower costs.

Some growers believe that adopting ecologically based fruit management can pay off by directing their fruit toward more profitable markets. The optimistic producers talk about marketing strategies as well as production techniques.

Apple grower Kevin Winkel saved his orchard during the Michigan fire blight outbreak of 2000. He used information from his own weather station plus disease development information from a computer model. Winkel's orchards were sprayed when a critical combination of open blossoms, warm temperatures, free water and threshold levels of bacteria coincided. "We saved the orchards, but it took time, effort and money," he said.

Winkel had limited plantings of the newest varieties, such as Gala, Fuji and Jonagold, which are most susceptible to fire blight. He grows mostly Red and Golden Delicious, which

are less susceptible. He maintains a 1.5-acre test orchard on his farm and is evaluating 150 new varieties that are more resistant to fire blight and apple scab. While some evidence suggests that consumers are looking for novel tastes in apples, history says it takes years to establish a market for a new apple.

Winkel continues to use ecologically based principles. He spent years establishing a good environment for predatory mites—seeking them out and transporting them from abandoned orchards to his own. Since 1999, he has used no miticides, not even dormant oil. He uses his weather station and information on growing degree day accumulations, his own scouting and reports on regional trap catches to time sprays accurately.

R. Isaacs



R. Perry



R. Perry

