

Environmental Factors Affecting Mite Populations

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European red mite (ERM) and two-spotted spider mite (TSM) are always potential pests of cherries. Certain environmental factors influence their population size and chances for causing damage. Cultural practices and spray programs also influence their development to pest status.

Early, dry springs and hotter than average summer temperatures with maximum daily temperatures exceeding the norm cause mites to reproduce more rapidly. This results in larger populations and more generations per season than normal. Conversely, cool, wet years usually mean fewer problems from mites (except when populations are artificially disrupted such as by using insecticides toxic to predator mites).

Dusty areas within an orchard, such as along un-surfaced roads or shallow, dry areas within an orchard, will have more pest mites than non-dusty areas. Dust evidently either inhibits predator mites or makes leaf surfaces more desirable for pest mites.

In some orchards, ground cover may contribute to TSM problems if large populations of mites build up on the orchard floor and later migrate to the trees in response to cultivation, herbicides, or natural senescence.

There is almost always an association between insecticide and fungicide spray programs and mite outbreaks. The more sprays, the greater the odds that mites will be a problem.

Carbamate and pyrethroid insecticide use in orchards greatly increase the odds for mite problems.