

Growing apples without pesticides - fact or fiction?

A LISA project (Low Input Sustainable Agriculture), conducted in an experimental ~ orchard at Michigan State University's Kellogg Biological Station and on a commercial farm, is testing new and old non-synthetic-chemical ways to prevent the pests that have long plagued apple growers. The research, led by Dr. Stuart Gage, an entomologist at Michigan State University, shows, for example, that the "wormy apple" problem due to codling moths can be reduced substantially by the use of techniques that disrupt the mating of moths - such as devices tied on branches that emit a female moth sex pheromone.

Taking a cue from history, the research at the Kellogg Station in 1990 showed that damage by the plum curculio pest was 25 to 40% lower in rows where chickens were fenced-in directly under the trees and foraged continuously from July to September. The chickens eat pest larvae in the soil and in apple drops. Further investigation in 1991 will determine how much chickens contribute to this reduction in plum curculio damage.

Actually, chickens do more than that. For example, they can replace the need for herbicides to control vegetation, a significant problem in orchards with dwarf trees. According to Dr. Gage, "the foraging and trafficking of chickens, combined with the toxicity of their manure, keep down weeds and grasses that would otherwise compete with the trees for nitrogen and moisture." Gage emphasizes, however, that these are preliminary first year results. By controlling the vegetation, chickens also eliminate habitats for tree-damaging rodents.

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