



KAUFFMAN'STM FRUIT FARM & MARKET

— BIRD-IN-HAND, PA —

IPM in our **Orchards**

*A balanced approach to
conservation & pest
management.*

IPM is an approach to pest management in agriculture that **balances** economic, environmental, and social issues.

- **“Integrated”** means that various techniques are united in the solution of a pest problem.
- **“Pests”** are organisms that affect crops negatively, including bacteria, fungi, viruses, insects, mites, weeds, and nematodes.
- **“Management”** is the process of protecting crops from the economic damage incurred by pests.



Our goal with the IPM program is to reduce the chemical pesticide use to the minimal level necessary for producing high quality food that will be competitive in the marketplace while protecting human health and environmental quality.

The Cornerstones of IPM

- Monitoring, or *scouting* - includes detecting, identifying, and sampling pest populations on a regular basis.
- Forecasting with available weather data and other information to predict when specific pest problems will most likely occur.
- Using thresholds (pest population levels) to determine when pest populations have reached a level that could cause economic damage.
- Choosing appropriate strategies to control pests including biological control, horticultural practices, behavior modification, or a combination of these strategies.

Science in Orcharding

- Biological control is the use of one organism against another by predation, parasitism, or competition. Examples include encouraging populations of ladybugs, lacewings, hawks, owls, swallows, and free-living nematodes, which are all organisms we call “beneficials”.
- Using horticultural practices as a means of control, including planting disease-resistant varieties and root stocks, using various pruning methods, and promoting soil fertility.
- Behavior modification control includes the use of pheromones to disrupt insect mating patterns.
- When these various controls are insufficient or there is no control available, chemical pesticides are used to control various threats to the crop in question.
- In addition to these controls, record-keeping is an important part of IPM to provide valuable data to manage pests in subsequent harvests.

Benefits of IPM

- Early detection and identification of pest problems, and accurate assessments of pest levels.
- Increased profits with decreased pesticide use and less crop loss.
- Reduced potential for contaminated ground water, surface water, and agricultural products.
- Reduced potential for development of pesticide resistance.
- High quality fruit grown with minimal pesticides.

Since 1970, Pennsylvania growers using IPM have...

- Reduced miticide use by 90%
- Reduced insecticide use by 50%
- Reduced fungicide use by 30%

Here at Kauffman's, we've used available IPM practices for over 40 years! For more information about IPM, see Penn State's PA Tree Fruit Production Guide (PDF), available here <http://agsci.psu.edu/tfpg>

