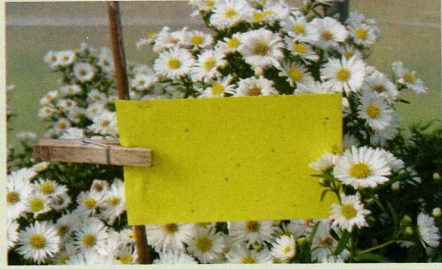


THE KEY COMPONENTS OF IPM

Scouting: Inspect plants for diseases and insects. A hand lens is useful to examine plants. Scouting tools include yellow sticky cards, potato wedges, and indicator plants for early detection of pest problems.



Adult potato aphid.

Record Keeping: Maintain regular records of your pest and disease problems and refer back to them when a problem resurfaces. This helps you prepare for the following year.

Pest Identification: Know the pest or disease on your plants before trying to manage it. Send specimens for identification by experts when you don't recognize the pest.

Prevention: This includes good sanitation, soil and water testing, general maintenance, weed control, proper watering, and purchasing pest-free stock.

Sanitation: Use clean pots and pest-free soil. When possible, leave the greenhouse empty for a short time and sanitize it before starting a new crop. Remove heavily infested plants during the season and discard "pet" plants at the end of the season.

Testing pH and Nutrient Levels: Test potting mix and water for pH and soluble salts. Adjust levels as needed. Send out samples for analysis if necessary.



pH and soil sampling.



Weeds under bench.

Weed Control: Remove weeds under benches as they can harbor insects and disease. Maintain a weed-free border around the outside of the greenhouse.

Watering: Too much or too little water make the plant susceptible to diseases and insect pests. Hang up the hose between watering. The people who water are the first line of defense for insect or pest problems.

Purchase Pest-free Stock: Check 10% of the stock you buy for pests and pathogens and discard infested plants. Return heavily infested plants to the producer.

Biological Control: When possible, use biological controls rather than chemical pesticides.



Watering wand kept off the floor.



Natural enemies: lady beetle adult (left); parasite stinging an aphid (right).

Chemical Control: When other approaches fail, chemical pesticides may be appropriate. Follow label instructions. Calibrate your sprayer at the beginning of the growing season and use spray cards to check coverage.