

Inspection and Sanitation is Key to Prevent Introduction of New Pests and Diseases

One of the biggest problems for many growers is the inadvertent introduction of new pathogens and insect pests into their production field or nursery. Stopping the introduction of common weeds, insects, and pathogens into the farm or nursery is the first step to keep them from establishing in the first place. It is especially important to be vigilant now with new invasive insect pests lurking in nearby counties or on perimeters of production fields (e.g. light brown apple moth, Asian citrus psyllid, bagrada bug, and brown marmorated stink bug. Invasive nursery diseases might sneak in on roots of nursery stock (e.g. *Phytophthora ramorum* and *Phytophthora tentaculata*).

Make sure you are keeping your farm or nursery in the best possible condition--controlling existing pest and pathogens and providing the best possible bed preparation or growing conditions for your crops. Then you can concentrate on preventing the introduction of pathogens and pests through careful inspection of new plants and good sanitation.

Here's a short list of things that you could do:

- Know the source of propagative material you plant, and insure that the propagator is doing everything possible to provide healthy seed or plants to you. Inspect seed, transplants, or liners as it is delivered to your field or nursery. Make sure no diseases or pests are evident. Pull transplants or liners out of their containers and look for healthy root tips. Insects such as aphids, thrips or mealybugs hide in young folded leaves or tightly angled stems. There are field test kits for several root pathogens such as *Pythium*, *Phytophthora*, and *Rhizoctonia*. Test kits exist for common viruses such as tomato spotted wilt, impatiens necrotic spot and cucumber mosaic. If a pathogen or insect infestation is detected, controlling the problem before you plant in the field is much easier than after the problem is established in the field. "Controlling the problem" sometimes means destroying the plants before they are planted or introduced into a nursery or field.
- Soil adhering to equipment, tools, tires and shoes may contain pathogens and weed seeds. Wash off all soil from these before moving to a new field location. The soil needs to be removed before ever thinking about using disinfectants such as chlorine bleach or quaternary ammonium compounds.
- Weeds and ornamentals planted just outside production areas can contain pathogens and insects that can move onto crop plants. Weed seeds can blow in from these areas. Light brown apple moth migrates from many perimeter hosts onto crops. Weeds can contain virus, and as weeds dry in the spring, insects move off them and can infest crop plants.