

Ask Laura  
By Steve Tjosvold  
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Question: It's the New Year. Could you suggest a New Year's resolution that would benefit almost any grower in Santa Cruz County?

Answer: One of the biggest problems for many growers is the inadvertent introduction of new pathogens and insect pests into their field or nursery. Santa Cruz County has had more than its fair share of serious invasive pests and diseases, such as light brown apple moth, spotted wing drosophila, and the European grapevine moth. And this past year, I have written about the new important insect pests that are lurking on our County boundaries: bagrada bug, brown marmorated stink bug, and Asian citrus psyllid. So there are reasons to be especially vigilant now. Of course, stopping the introduction of common weeds, insects, and pathogens into the farm or nursery is important too. Therefore doing everything possible to stop their introduction, in the first place, is very important-- and why it should be a New Year's resolution for every grower.

Question: What can I do to prevent the introduction of new weeds, insects, and pathogens?

Answer: First, 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.

Here's a short list of things that you could do to prevent the introduction of pathogens and pests:

- 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 throwing infested plants in the dumpster.
- 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. So, don't forget that controlling pests and weeds in areas outside of crop production areas could be really important to prevent new problems.