ask us About Pests

By Jim Bethke
Insects
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Q **Is there a problem tank mixing insecticides with fungicides or fertilizers?**

A It is clear that tank mixing can save a lot of time and labor, but there are a few things to be wary of. For instance, mixing the two chemicals could cause one or both of them to become ineffective, or the mixture could cause precipitates to form in the tank, which then clog the hoses and plug the nozzles. Tank mixing may change the pH of the tank solution significantly, which may have an impact on efficacy of some products. In addition, most of these products are formulated with a variety of surfactants and carriers that alone may cause a phytotoxic effect if used at a high rate. Therefore, by combining several products, you may be increasing the level of surfactant to a phytotoxic level. Be especially mindful of products that are oils or contain an oil as a surfactant, such as EC formulations. For the most part, however, it is fine to mix insecticides and fungicides because they will not typically interact and cause problems.

The agricultural chemical companies have worked extensively with their products and have a pretty good idea of what you can and cannot do with their product. Most of them have included a small section on the label about tank mixing, how to mix them and in what order. However, given the enormous number of products out there and countless combinations available, it is advisable to exercise caution and perform a jar test. The following website explains how to perform a jar test with different formulations of insecticides or fungicides as well as fertilizers: pesticides.montana.edu/pcideprofiles/compat_test.htm.

There is room here for a lot of research, and Dr. Ray Cloyd has been on the forefront of this initiative (see the August 2004 issue of *GPN*). Watch for more reports from his work in the future.

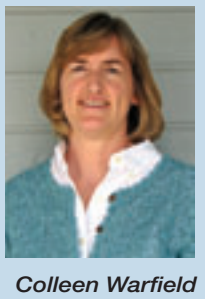
Q **How do I get rid of earthworms in my pots?**

A A grower recently told me his customers were complaining that earthworms were crawling out of the pots in the stores, and he has seen large numbers in the pots at his facility as well. He also thought that they might be feeding on the plant roots because the plants were looser in the pots. He was in search of a chemical control solution.

First of all, earthworms are your friends! They are beneficial and typically not a plant pest or root feeder. They have a vacuum cleaner for a mouth and pick up very small organic matter as food, so they are not going to be a pest worth controlling. However, as with adult fungus gnats and whiteflies, they can be a nuisance pest that might impact sales, so I understand that they may need some form of mitigation.

Investigating the situation further, we determined that his plants were not directly on the ground but 6 inches above the ground on upside-down plastic crates. At night, the worms would crawl up the flats and into the pots. Although his facility was of considerable acreage, the very best solution was to cover the ground with thin polyfilm and replace the flats. This might carry an initial labor and purchase cost, but it would eliminate the need for repeated chemical applications or other control methods. Pursue these cultural or physical methods of control before you consider a chemical solution. Chemicals aren't always the answer.

Do you have a question for our panel of experts? Send your disease, pest or growth-control questions to the appropriate person, and look for the answer in an upcoming issue of GPN.



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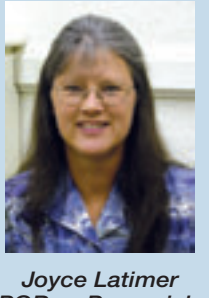

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