

Use Caution When Tank Mixing Pesticides

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Southern Illinois farmers have gotten a great deal of field work accomplished. There remains much more to do at this early point in the season.

Applying mixtures of different pesticides, or pesticides in combination with various adjuvants and fertilizers, can be an efficient approach, but there can also be a downside. When choosing to tank-mix various agricultural chemicals, the applicator should be aware of the potential for adverse effects. Some pesticide labels state that the applicator assumes all liability if tank-mixing. However, unless expressly prohibited by a pesticide's label, tank mixing is legal.

Potential problems include both physical and chemical incompatibility. Some labels indicate necessary precautions for potential compatibility issues. Always read the label and follow all safety and personal protective requirements.

Physical incompatibility refers to mixtures that form layers, gels, flakes or crystals. Chemical incompatibility suggests the potential for antagonism (does not work or may cause crop

injury) or synergism (a tank mix with greater response than separate applications).

Most labels have instructions concerning tank mixing and the order in which products are added. Follow label directions. But if tank mixing instructions are not indicated, tank mix products in this order:

- fill tank 1/4 to 1/2 full with water, fluid fertilizer, or appropriate carrier
- begin agitation
- if needed, add utility agents (such as compatibility or anti-foam)
- add suspension products, dry products may be pre-slurried, then liquid suspension (F, FL, ME)
- next, add emulsifiable products (EC)
- add products that form true solutions
- finally, add any adjuvants or other spray modifiers (if needed)
- top off with the appropriate amount of water/liquid fertilizer

It would be very unusual to use all of the pesticide formulations in a single tank mix. A future article will address additional tank mixing considerations. Remember, tank mixing and loading utilizes pesticides in their concentrated forms. Always read and follow label directions and observe all safety precautions. Δ

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