Industry News

Several recent changes in cultural and pesticide application practices could lead to problems. One of these is the application of pesticides with irrigation water (fungigation) or through drip irrigation. Research is needed to determine how these methods affect the efficacy of various pesticides.

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Another change is the acceptance of dwarf rootstocks of deciduous fruit and nut trees. Several universities are investigating reducing pesticide rates on dwarf trees based on the concept of tree row volume (TRV), which considers tree height and width and row spacing. Research is needed to provide a scientific basis for reducing pesticide rates on small trees. Also, there is still considerable confusion about concentrate vs. dilute applications for deciduous fruit trees. For example, use rates for apples have historically been based on a dilute rate of 400 gal/A. Currently, most growers are spraying at concentrate rates of 2--10X and reducing rates by 25%, but research on quantifying rate reductions with concentrate applications is needed.

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Growers are beginning to solid-plant such crops as soybeans, and the pesticide recommendations based on banded applications over the row need to be changed for solid-planted crops. No-till and low-till cultural practices also influence disease, insect, and weed problems and the way pesticides are applied to the crop.

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Such new types of applicators as controlled-droplet and electrostatic sprayers appear to have the potential for reducing pesticide rates, but more research is needed to confirm early results. Similarly, many growers are beginning to apply pesticides with crop oil or emulsified spray surfactants, which they feel improve coverage and efficacy while reducing drift. Again, research is needed to determine how these spray additives affect pesticide efficacy.

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When determining pesticide recommendations, industry and research personnel commonly compare efficacy data obtained from a variety of testing procedures. Establishing uniform procedures and publishing thorough descriptions of such tests could be an important step in arriving at pesticide recommendations.

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Also to be considered is how regulatory agencies will react to pesticide recommendations arising from changes in cultural and application practices. For example, if industry wishes to word a new fungicide label based on tree row volume, how acceptable would the wording be to the Environmental Protection Agency? Would additional data, such as the results of residue studies, be required? The APS Chemical Control Committee could lead the way in handling pesticide application problems through discussion sessions at meetings and affirmative actions.

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