

Pome Fruits—Chemical Control

Current and Potential Activities to Improve the Definitions of Horticultural Mineral Oils

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Attempts have been made in the past to improve the definition of horticultural mineral oils. Several classification systems have been previously proposed which include the terms, "classified," "superior" or "narrow range." Improvements in the definitions of horticultural mineral oils are needed to aid the grower in the selection of horticultural mineral oils for both safety and effectiveness. Both published information and state spray guidelines commonly provide insufficient definitions of horticultural mineral oils. The grower is not in a position to make an informed decision concerning the selection of a horticultural mineral oil-based product.

Meaningful factors in the selection of the horticultural mineral oil for safety and effectiveness are 1) molecular size, 2) molecular shape and 3) EPA registration. How big are the hydrocarbon molecules? What are their shapes? Is the product supported by toxicological and other safety data for EPA registration? The definition of molecular size becomes the principal question. Paraffinic hydrocarbons are the desired shape being more effective and supported by the re-registration process. Also, EPA/state registrations are being actively pursued.

Current activities relative to definitions will be reviewed, including activities by the Horticultural Spray Oil Task Force and the ASTM E35.22, Pesticide Formulations and Application Systems Subcommittee. Also current and potential methods of defining molecular size will be reviewed. The purpose of this presentation is to encourage your involvement in improving the definition and description of horticultural mineral oils in your publications and in state spray guides.