

Watermelon IPM

Who Cares and Why: Current watermelon IPM programs focused primarily on insect management strategies. Private consultants and agribusiness expressed an interest in developing a multi state approach focused on a total crop management system including input from county Extension staff, Extension specialists and Research faculty from the Universities of Delaware and Maryland.

What Has Been Done: In 2002, watermelon IPM programs were delivered to producers through private and agribusiness consultants. A partnership was developed with these consultants where scouting reports were shared on a weekly basis and management decisions were made as a group. A multi-state approach in cooperation with the University of Maryland's Extension plant pathologist and consultants was implemented to develop and evaluate a total crop management system for insect, diseases and nutrient management in watermelons. Innovations included the development and implementation of an alternative disease management program using varietal selection, disease scouting, and a weather based disease forecasting system to time fungicide application (University of Maryland/Delaware); the incorporation of leaf petiole sampling into nutrient management programs (consultants); and the development of alternative mite management strategies (University of Delaware).

Impact: New spider mite management strategies in watermelons including refined thresholds, reduced risk insecticides and weed management in rye strips were identified resulting in a saving of \$ 20 per acre in reduced miticide use on 200 acres. In 2002, 2100 acres of watermelon used the Melcast Disease Forecasting System. On 650 acres, growers reported better results from timing fungicide applications and savings of \$15 to \$30 in reduced fungicide applications. Leaf petiole testing was expanded and was used to improve timing of nitrogen applications.

Primary Impact Areas: Extension

Funding Sources: Federal Smith Lever 3-D IPM Funds, State IPM Funds, Grower and Industry grants

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