

## Promising New Materials for Organic Pest Control

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The Organic Materials Review Institute (OMRI) is a non-profit organization established in 1997 for the purpose of reviewing products and ingredients used as inputs for organic production and processing. OMRI publishes a frequently updated list of products that are compliant with the USDA National Organic Program regulations, available in hard copy from OMRI and freely accessible on the OMRI website ([www.omri.org](http://www.omri.org)).

Organic farmers face limitations established in the organic regulations regarding permitted materials. Growers may only use a synthetic substance if it appears on the National List (7CFR 205.600-607) for the specific application. The National List includes only a few permitted synthetic substances including soaps, copper and sulfur compounds, narrow range oils, hydrogen peroxide, potassium bicarbonate, sticky traps and pheromones. Natural materials, such as microbials (including *Bt*, *Beauveria*, *Trichoderma*) and botanical pesticides such as rotenone and pyrethrum are also permitted without specifically appearing on the National List. In addition, all inert (non-active) ingredients in formulated products must either be non-synthetic, specifically included on the National List, or appear on EPA's List 4 – as an inert ingredient of minimal concern. Products must be reviewed for compliance with the USDA regulations, as many formulations do contain prohibited inert ingredients.

The OMRI list provides information about what products are permitted, and many new products have been added in the last two years. There is not a great deal of information available, however, about the efficacy of these materials for specific pest and disease problems. OMRI is participating in a joint research project to produce a set of fact sheets about different materials available for pest and disease control of organic crops. These fact sheets will include information on the source of the active ingredient, mode of action, application guidelines, effects on the environment and human health, available formulations, and efficacy based on literature review. A separate section of guidelines will provide management information regarding major vegetable crop families that describes the pest and disease complex and various options for control in organic systems, including preventive and cultural methods.

Fact sheets in development include *Bt*, spinosad, *Beauveria*, neem, pyrethrum, potassium bicarbonate and *Bacillus subtilis*. Information developed to date on these topics will be presented, including charts rating efficacy against various pests. The project completion date is scheduled for May 2004 with publications available some time after that.

Project collaborators include Eric Sideman of the Maine Organic Farmers and Gardeners Association, Brian Caldwell of NOFA-NY, and Tony Shelton and Chris Smart of Cornell University, with funds from the Northeast SARE program, as well under the Northeast Organic Network program funded by CSREES-IFAFS.

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