BIOLOGICALLY-INTENSIVE IPM ALTERNATIVES TO SOIL FUMIGATION WITH METHYL BROMIDE

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The impending withdrawal of the soil fumigant methyl bromide presents an opportunity to apply biologically-intensive integrated pest management methods to solve soil borne pest problems.

This paper discusses biologically-based products and methods currently used to manage soilborne fungal pathogens, nematodes, and weed seeds in the nursery and turf industries and in organic and IPM agricultural systems. Topics discussed include pathogen-suppressive composts, biocontrol microbials, mycorrhizial inoculants, nematicidal cover crops, entomopathogenic nematodes, and botanical pre-emergent herbicides. These biological products are usually integrated with cultural, physical, mechanical, and selective chemical controls to suppress target pests. Both current research and commercial status of these products are described.