POTENTIAL FOR OFF-SEASON SOIL FLOODING AS AN ALTERNATIVE TO METHYL BROMIDE FUMIGATION IN FLORIDA

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Summary:

High-value annual vegetable crops are produced in Florida mainly during the fall-winter-spring seasons of the year. Many of these crops in southern Florida are grown on high water table soils that must be drained for crop production. Heavy rainfall usually occurs during the summer, which offers the opportunity for prolonged flooding of the soil during the cropping off-season. Experiments are underway to determine the efficacy of anoxic soil environments produced by prolonged flooding for the control of weeds (primarily nutsedge), nematodes, and other pests. These experiments are being conducted in combination with soil heating by solarization, heavy organic matter application, and cropping of flooded soil with rice. The experimental set-up and preliminary findings will be discussed.

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