TELONE* C-17 AS AN ALTERNATIVE TO METHYL BROMIDE IN FLORIDA MULCHED VEGETABLE PRODUCTION

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Telone* C-17 (77.9% 1,3-dichloropropene plus 16.5% chloropicrin) was evaluated in more than 20 small plot trials in Florida during 1993-1994 as an alternative to methyl bromide/chloropicrin mixtures now being used. Trials focused on Florida mulched vegetable production, of which tomatoes, peppers and strawberries constitute 80+% of the fumigated acreage. Efficacy of these products was evaluated on nematodes (primarily root-knot nematodes, Meloidogyne spp.), several diseases (primarily fusarium wilt, Fusarium oxysporum f.sp. lycopersici, and fusarium crown and root rot, Fusarium oxysporum f.sp. radicis-lycopersici), and weeds (primarily yellow nutsedge, Cyperus esculentus, and purple nutsedge, Cyperus rotundus).

Overall, Telone C-17 generally was equivalent to methyl bromide/chloropicrin for control of root-knot nematodes and diseases. Telone C-17 did not provide equivalent control of nutsedge and a herbicide will be necessary for weed control where nutsedge is a problem. Total yields in 1994 pepper and tomato plots treated with Telone C-17 ranged from 76-128% of those in plots treated with methyl bromide/chloropicrin mixtures, with an average of approximately 95%. In these small plot trials, Telone C-17, in combination with an effective herbicide, provided nematode, weed, and soil-borne disease control and yields that usually were equivalent to those obtained with methyl bromide/chloropicrin mixtures.

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