RESULTS OF THE IR-4 STRAWBERRY METHYL BROMIDE ALTERNATIVES PROGRAM IN FLORIDA DURING 2002

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Two identical experiments were conducted during the 2002 - 2003 strawberry production year in Florida as part of the USDA / IR-4 Methyl Bromide Alternatives Program. One trial was conducted on a commercial farm in the primary strawberry production area of Florida and the other was conducted 40 miles south at the Gulf Coast Research and Education Center in Bradenton, FL. Each experiment evaluated various labeled and experimental products for soilborne pest control in fruiting 'Camarosa' strawberrry. Treatments were applied and bare rooted plants were planted during October and fruit were harvested from December through early April. Treatments evaluated were a nontreated control, methyl bromide + chloropicrin (67 + 33%, respectively), 1,3-dichloropropene (1,3-D) + 35% chloropicrin + oxyfluorfen, dazomet + 1,3-D + 35% chloropicrin, chloropicrin + fosthiazate, chloropicrin + metam sodium, propylene oxide, UCC-A1641, and Multiguard FFA (furfural + isothiocyanate) and Multiguard Protect (furfural) + metam sodium, alone and in combination with sequential monthly applications of furfural post plant.

Control of sting nematodes (*Belonolaimus* sp.) was good with all treatments, except propylene oxide, UCC-A1641 and those containing Multiguard FFA or Protect. Soilborne disease control was provided by treatments containing chloropicrin, including methyl bromide, 1,3-D + chloropicrin, and chloropicrin + fosthiazate. The combination of 1,3-D + chloropicrin + oxyfluorfen was the only treatment which provided any control of Carolina geranium (*Geranium carolinianum*), a troublesome winter annual weed. Highest yields were obtained with methyl bromide + chloropicrin, chloropicrin + metam sodium, 1,3-D + chloropicrin + oxyfluorfen or dazomet, and chloropicrin + fosthiazate.

- All treatments, except propylene oxide, UCC-A1641, and those containing Multiguard FFA or Protect, provided good control of sting nematodes.
- Treatments containing chloropicrin provided control of soilborne diseases (anthracnose).
- Carolina geranium was controlled only with oxyfluorfen applied to the bed top.
- Highest yields were obtained with methyl bromide + chloropicrin, chloropicrin + metam sodium, 1,3-D + chloropicrin + oxyfluorfen or dazomet, and chloropicrin + fosthiazate.