
METHYL BROMIDE ALTERNATIVES (MBA) PROGRAM

2003 IR-4 Methyl Bromide Alternatives Trials Planned and Underway in the U.S.

Florida-Strawberries: Two large scale strawberry trials are being conducted for IR-4 by Dr. James P. Gilreath, University of Florida. These trials are located in the commercial production areas of Florida near Plant City and near Bradenton. Heavy sting nematode and fungal plant pathogen pressures, especially at the Plant City test site, caused good separation of treatments. Dr. Gilreath hosted tours at both sites in early February and differences between treatments were obvious. Products included in these trials were Telone C35, Chloropicrin EC, Metam Sodium, Basamid, Fosthiazate, Propoxone, MULTIGUARD™ FFA, MULTIGUARD™ PROTECT and UCC-A1641. Various combinations of Telone C35, Chloropicrin EC, Metam Sodium and Basamid provided excellent control of heavy pest pressures at both locations. Also, as in the past, the combination of fosthiazate, Chloropicrin, and Metam Sodium was an excellent treatment at both test sites. The MULTIGUARD™ products performed well at the Bradenton test site but failed to give acceptable control under extremely heavy pressure at the Plant City site. Propylene oxide was not highly effective at either test site this year. We believe that where results were poor with the MULTIGUARD™ products and with Propylene Oxide that the likely cause was less than optimum timing of application with regard to treating, transplanting, and invasion of the plants by the pests. The UC-A1641 product failed to give acceptable control at either test site for reasons unknown to us.

Florida-Tomatoes: Two large scale IR-4 fresh market tomato trials were initiated in Florida under the direction of Dr. James P. Gilreath in February. These trials are located in the Ruskin area and in Bradenton. The treatments under evaluation are similar to the treatments above for strawberries except two additional products, AJ 1629 and SEP-100 (sodium azide), are being evaluated in the Florida tomato trials. It is too early to comment on results at this writing. Trifloxysulfuron sodium and Dual Magnum have also been included for weed control in combination with Telone C35 in the Florida trials.

California-Strawberries: IR-4 strawberry trials are underway in California at 3 locations but since the season is later than in Florida there is nothing to report at this writing. The trials are being conducted by Plant Sciences, Inc., Watsonville, CA and Driscolls Strawberry Associates, Watsonville, CA. Products under evaluation in California are the same as in Florida.

California-Tomatoes: Reliable pest pressure in fresh market tomatoes is difficult to find in California and consequently IR-4 may not conduct fresh market tomato trials in California in 2003. If conducted, the trials will be run by Plant Sciences, Inc., in the spring.

Michigan-Multiple Crops: Trials are currently being planned for Michigan where some of the more promising IR-4 experimental methyl bromide alternative candidates will be evaluated in summer and winter squash, watermelon, cantaloupe, tomatoes, peppers, and eggplant. The trials will involve two planting dates with the first date in early May and the second trial to be started in mid-June. The primary pest problem is *Phytophthora capsici*. Products being discussed for possible evaluation include the MULTIGUARD™ products, MULTIGUARD™ FFA and MULTIGUARD™ PROTECT, applied both pre-transplant and post transplant (a unique and potentially advantageous property of MULTIGUARD™ PROTECT), and SEP-100 (sodium azide). These products would be compared to the standard products, Methyl Bromide/Chloropicrin (67:33), Telone C35, and VAPAM HL. Results from 2002 trials run in Michigan with the MULTIGUARD™ products were quite encouraging, providing even better control of *Phytophthora capsici* than the Methyl Bromide/Chloropicrin treatment in summer squash and cucumber. We hope to see these results repeated across all crops affected by this pathogen in Michigan in the 2003 IR-4 program. These trials will be under the direction of Dr. Mary Hausbeck, Michigan State University.

Article by Jack Norton

New Label Amendments Accepted For Post-Harvest Uses of Propylene Oxide

IR-4 is pleased to announce that EPA has accepted amended Propylene Oxide labeling to allow the treatment of in-shell nuts (walnuts, almonds, pecans) and cocoa beans. IR-4 has worked closely with EPA's Registration Division and ABERCO (the registrant) over the past 2 years and considers the results of this combined effort to be a significant success story as a replacement for methyl bromide use for in-shell

nuts and cocoa beans. When used as directed, this product provides excellent control of pests affecting stored products. These label approvals are timely since methyl bromide is slated to be phased out in 2005. For additional information contact Dr. Jack Norton, Manager, IR-4 MBA Program (405-340-1800 or norton.jack@worldnet.att.net).