DEVELOPMENT OF ALTERNATIVES TO METHYL BROMIDE FOR FORESTRY USES: THE ROLE AND ACCOMPLISHMENTS OF USDA-FOREST SERVICE, FOREST HEALTH PROTECTION

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Each of the three branches of the USDA-Forest Service participates in the effort to develop alternatives to methyl bromide in forestry uses. Forest Health Protection (FHP) staff serves as a bridge between research and operational uses of viable substitute practices. The overall FHP role as a bridge-builder entails diverse specific roles to bring scientific expertise to bear on developing methyl bromide alternatives. FHP belongs to the State and Private Forestry branch of the Forest Service. We are charged with providing pest management expertise to the larger forestry community as well as specific assistance to National Forests and other federal agencies. Work is accomplished through state forestry organizations in addition to FHP staffs colocated with national, regional and subregional offices of the National Forest system.

FHP accomplishes its mission through technology development, on-site consultation and training, and participation in technology transfer of research results. Technology development and transfer is coordinated through a national Forest Health Technology Enterprise Team (FHTET) with offices in Fort Collins, Colorado and Morgantown, West Virginia. FHTET manages two grant programs that contribute to methyl bromide alternatives development:

Special Technology Development Program (STDP)

STDP supports projects that rapidly move research findings into practice by applying integrated pest management to protect forest health. Over one million dollars annually are awarded , including a matched contribution of $200,000 from FS-Research to accelerate technology development addressing exotic pest organisms: forest weeds as well as insects and diseases of trees and forest products. STDP has sponsored one coordinated, nationwide study to develop integrated alternatives to methyl bromide preplant fumigation of forest nursery soils, and additional smaller-scale specific nursery studies.

Forest Service National Agricultural Pesticide Impact Assessment Program (FS-NAPIAP)

FHTET manages the Forest Service's participation in the USDA-NAPIAP program. FS-NAPIAP supports studies of the benefits and impacts of the use of registered pesticides in forestry. FHP matches contributions by Agricultural Research Service to award over $700,000 annually. Compared to STDP, FS-NAPIAP sponsors smaller, focused studies, emphasizing substitute registered pesticides as part of IPM alternatives. Under the methyl bromide alternative emphasis, FS-NAPIAP has funded four studies supporting preplant alternatives (tree seedling nurseries), three studies involving postharvest (i.e. log or wood treatment), and one study of forest plantation management. Additional studies provide environmental/ecological effects information on various pesticides that may become part of an alternative IPM system to current methyl bromide uses.

Both STDP and FS-NAPIAP explicity include alternatives to methyl bromide in their priorities for eligible proposals. Qualified investigators from academia, and state and federal agencies may propose studies, providing they obtain the support of a FHP staff sponsor. Both programs encourage collaboration among scientists from diverse organizations and favor proposals that receive financial and in-kind support from non-FHP partners.

FHP field staff also provide ongoing technology transfer and training in alternative IPM practices to field practitioners such as tree nursery managers. FHP has participated in risk assessments led by USDA-Animal and Plant Health Inspection Service of log importation from Chile, Mexico, New Zealand, and Russia. These phytosanitary risk assessments include consideration of methyl bromide and possible alternatives in their analysis.