

# **Progress report for weed portion of MeBr II – 2004**

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## ***Progress report***

In the seedling conifer trial, crop injury was 13% or less with all herbicides tested. Weed control was generally good, but dependent upon treatment and weed species. Four herbicide treatments were more effective than methyl bromide and controlled at least 80% of all weed species present. These included oxyfluorfen, oxyfluorfen plus dithiopyr, oxyfluorfen plus S-metolachlor, and S-metolachlor plus mesotrione. Crop growth was equivalent or greater in herbicide treated plots compared to methyl bromide.

In the herbaceous perennial trial, heavy spring rains may have reduced methyl bromide effectiveness. Ajuga was injured by flumioxazin treatment, resulting in reduced height and diameter. Lupine and vinca measurements were similar with all treatments and the untreated control. Weed control was generally fair to good with all treatments. No treatment, including methyl bromide, controlled at least 70% of all weeds present. Control was generally best with flumioxazin, isoxaben plus S-metolachlor, and isoxaben plus dithiopyr.

In knawel, yellow nutsedge, horseweed, mugwort, and hemp dogbane trials, treatments were identified that may control each weed. However, crop tolerance may not be adequate with certain herbicides.

## ***Expected impacts***

Results of this project will improve weed control in herbaceous perennials and seedling conifers over current standards. These results will allow growers to design environmentally and economically sustainable weed control programs without the current reliance on methyl bromide. This should increase environmental health and worker protections.

## ***Publications***

Richardson, R.J., B.H. Zandstra, R.E.Uhlig, D.A. Little, M.G. Particka, T. Dudek, J. O'Donnell, N. Myers, and B. Walters. 2004. Weed control research on ornamental crops and Christmas trees. Horticultural Report No. 65.

Uhlig, R., R.J. Richardson, and B.Zandstra. 2005. Yellow nutsedge control in ornamentals with registered and experimental herbicides. Proc. Northeast Weed Sci. Soc. 59:*In press*.