

WEED CONTROL IN ORCHARDS USING PREEMERGENCE AND POSTEMERGENCE HERBICIDES. Michael G. Particka, Joseph G. Masabni, and Bernard H. Zandstra, Research Assistants and Professor, Department of Horticulture, Michigan State University, East Lansing, MI 48824.

Weed control is a crucial part of the overall management of an orchard. Weeds should be controlled to eliminate competition for nutrients and water, cover for deer and rodents, and alternate hosts for disease and insects. Weeds may cause poor crop pollination because weed flowers may be preferred by pollinators. Additional herbicides are needed to improve weed management in orchards because some of the current herbicides have a potential for leaching or weeds are becoming resistant. Herbicide trials were conducted at Michigan State University to compare new herbicides to herbicides currently used for weed control in apple and cherry. A preemergence application of glyphosate 1 lb ai/acre tank-mixed with azafenidin 1 lb or flumioxazin 0.375 or 0.75 lb provided good season long weed control. Sulfentrazone applied at 0.5 lb provided fair control of annual weeds but was weak on perennial weeds. A postemergence application of glyphosate 1 lb alone or tank-mixed with carfentrazone 0.02 lb provided good weed control. 2,4-D amine 1 lb, pyraflufen-ethyl 0.0088 lb, and 2,4-D acid 0.8 lb provided acceptable broadleaf weed control. Carfentrazone 0.02 lb alone provided unacceptable control of broadleaf weeds.