Crop Production Systems for the Mid-south. Special Report 67. Agric. Experiment Station, University of Arkansas, Division of Agriculture, Fayetteville, AK 72701, 114 pp.
Pimental, D. [Ed.]. 1978. World Food, Pest Losses, and the Environment. Westview Press, Boulder, CO 80309, 209 pp.
Quist, J.A. 1980. Urban Insect Pest Management for Deciduous Trees, Shrubs and Fruit Pioneer Science Publishers, Greely, CO 80632, 176 pp.
Smith, R.F. and J.L. Apple. 1976. Integrated Pest Management. Plenum Press, 227 West 17th, New York, NY 10011, 200 pp.
Street, J.C. 1975. Pesticide Selectivity. Marcel Dekker, Inc., 270 Madison Ave., New York, NY 10016, 47 pp.
Van Den Bosch, R. 1978. The Pesticide Conspiracy. Doubleday & Co., 245 Park Ave., New York, NY 10017, 226 pp.

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Contributed Abstract

Using preemergence herbicide combinations on deciduous nursery stock grown from softwood cuttings by W.D. Richards and W.D. Ward, Research Supervisor, Pacific Coast Nursery Inc., Route 1, Box 320, Portland, Oregon 97231 and Consulting Entomologist, Pacific Coast Nursery, Inc., Route 1, Box 320, Portland, Oregon 97231.

A trial was established at Pacific Coast Nursery Inc., Sauvie Island, on 5 deciduous tree varieties to determine the effectiveness of 2 granular preemergence herbicides. These materials were mixed for test purposes and used in combination on ornamental shade trees that were grown in the greenhouse from cuttings and transplanted in the test area on April 16, 1980. These plants were London planetree, 'October Glory' red maple, 'Red Sunset' red maple, 'Schlesinger' red maple, and 'Thundercloud' plum. The trees were planted in rows 4 feet apart on a 1 foot spacing and the treatments were applied in an 18 inch by 12 foot plot and were replicated 2 times for each variety. The herbicides applied to each variety were napropamide 10G at 4 lb ai/A plus oxadiazon 2G at 4 lb ai/A. The treatments were applied on May 12, 1980.

Initial observations on weed control and crop tolerance were taken on June 12, 1980 with 2 subsequent checks made on July 8, 1980 and August 6, 1980. The plots were given a visual rating from 0 to 10 for weed control and crop tolerance. The weeds observed were annual bluegrass, barnyard grass, mustard, yellow nutsedge, and water smartweed.

The napropamide 10G plus oxadiazon 2G combination proved to give fair to good weed control on everything except yellow nutsedge. Neither material is registered for use on yellow nutsedge. The napropamide seemed to be weak on complete coverage due to the high percentage of ai in the granular form. It is our opinion that the 10G formulation should be modified to a 2G or 4G formulation to overcome this problem. The crop tolerance to both materials was fair to good with no economic loss.

Treatment	*Rate*	*planetree*	*'October Glory'*	*'Red Sunset'*	*'Schlesinger'*	*plum*
napropamide 10G plus	4 lb ai/A plus					
oxadiazon 2G	4 lb ai/A					
weed control (broadleaf and grasses)		9.0	9.0	9.0	9.0	9.0
crop tolerance		1.2	2.2	2.0	2.1	1.0
check						
weed control (broadleaf and grasses)		3.0	3.1	2.0	2.5	2.2
crop tolerance		1.0	1.3	1.1	2.1	1.0

Control and crop tolerances are an average taken from 3 rating dates with 10 = total control or total crop kill.