EVALUATION OF FOLIAR DAMAGE FROM FUSILADE 2000 TO SEVERAL WOODY ORNAMENTALS

by David Hensley

Fusilade (fluazifop-butyl), a selective postemergent herbicide for grass control, has gained widespread use in the landscape maintenance and nursery markets. Although the 1985 label for Fusilade 4E listed its use as being safe for over-the-top application to some 415 ornamental species and cultivars, foliar damage has been reported on some landscape ornamentals (1, 2, 3, 4, 5, 6).

A new formulation, Fusilade 2000 (fluazifop-P-butyl), has been released and will replace the familiar 4E formulation. Svenson et al. (7) evaluated phytotoxicity of Fusilade 2000 on 22 container-grown ornamental species. No or no significant injury occurred on most plants evaluated; however, *Photinia* × *fraseri*, *Prunus cerasifera* 'Atropurpurea,' *Prunus cistinea*, and *Spiraea* × *bumalda* did show foliar distortion, chlorosis, and necrosis.

To expand the information on potential phytotoxicity, Fusilade 2000 was applied (over-the-top) at 0.25 and 1.0 lbs ai. per acre in 30 gallons water per acre to 16 field-grown woody ornamental species (Table 1) in a replicated study in June 1985. There was no evidence of foliar damage at either rate of Fusilade 2000 at two or four weeks after application. Most of the species initiated normal new growth during the evaluation period. Fusilade 2000 appeared safe for use on all species evaluated at the rates tested.

Literature Cited

- Ahrens, J. F. 1983. Postemergence grass herbicides for woody ornamentals and Christmas trees. Northeast Weed Sci. Soc. Proc. 37:318.
- Bing, A. and M. Macksel. 1984. Postemergence applications of fluazifop-butyl and sethoxydim on azaleas. Northeast Weed Sci. Soc. Proc. 38:128-130.
- 3. Frank, J. R. and C. E. Beste. 1983. Sethoxydim and fluazifop-butyl for weed control in field-grown azaleas. Northeast Weed Sci. Soc. Proc. 37:331 (abstr.).
- 4. Kuhns, L. J., G. Twerdok, and C. Haramaki. 1983. Screening woody ornamentals for tolerance to fluazifop-butyl and sethoxydim. Northeast Weed Sci. Soc. Proc. 37:254-255.
- 5. Rice, R. P., Jr., G. Lewis, and K. Harrell. 1985. Potential of fusilade, poast and CGA 82725 for control of weedy grasses in woody nursery crops and groundcovers. J. Env. Hort. 3(1):28-32.
- 6. Smith, E. M. and S. A. Treaster. 1985. Tolerance of landscape plants to fusilade and poast. Tenn. Nursery Digest 7(7):2.
- 7. Svenson, S. E., W. T. Witte and D. Crater. 1985. Phytotoxicity evaluation of PP05 experimental herbicide on 22 species of woody ornamentals. HortScience 20(4):659 (abstr.).

Table 1. Field grown woody ornamentals evaluated for phytotoxicity (% leaf damage) of Fusilade 2000. No damage resulted from 0.25 or 1.0 lbs ai/A either 2 or 4 weeks after application.

Acer platanoides
Acer ginnala 'Flame'
Betula pendula
Berberis thunbergii
var. atropurpurea
Celtis occidentalis
Cercis canadensis
Cornus sanguinea
Chaenomeles speciosa
Gleditisia triacanthos
var. inermis
Koelreuteria paniculata
Pinus sylvestris
Sophora japonica

Sorbus americana

Viburnum lantana

Viburnum lentago

Norway maple 'Flame' amur maple European white birch Redleaf Japanese barberry

Hackberry
Eastern redbud
Bloodtwig dogwood
Flowering quince
Thornless honeylocust

Golden raintree Scotch pine Japanese pagodatree American mountain ash Wayfaringtree viburnum Nannyberry viburnum

Department of Horticulture, Kansas State University Manhattan, KS 66506