VEGETATION MANAGEMENT GUIDELINE: Fescue (Festuca pratensis Huds.)

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Fescue (Festuca pratensis Huds.) has the potential to become a significant problem in certain natural areas because of its adaptability to poor sites, its putative allelopathic character, and its resistance to eradication. This alien species can invade open natural communities such as prairies and glades, and it is capable of displacing native species. Where it occurs in natural communities it has often been spread by horses and cattle through manure.

This grass is common in a variety of disturbed communities including pastures, abandoned fields, roadsides, grazed woods, and along railroad tracks. It does well on acid soils and grows best in open sunlight. It can tolerate a wide range of moisture conditions and is commonly found along levees and stream banks where it is often planted.

Fescue spreads primarily by seed to form dense solid stands. The dense clumps have thick mats of roots that make it almost impossible to pull the plant out of the ground. It emerges early in spring and often forms new growth in fall after the seed matures in July and August. This grass establishes itself slowly, but once the heavy clumps are formed, it is difficult to eradicate. As the density of fescue increases at a site, species diversity decreases; this is the result, at least in part, of allelopathic substances produced by the plant. Fescue can withstand trampling and heavy grazing by livestock.

Control may be achieved with prescribed burning and herbicides. Fire-adapted com-

munities with fescue infestations should be burned in late spring. It may be necessary to burn several years in succession to control old fescue stands. If repeated late spring burning does not control fescue adequately, natural area managers may have to resort to herbicide use, as most other feasible practices have been found ineffective.

Fescue infestations that fail to respond to repeated late spring fires should be sprayed with a 1-2% Roundup (a formulation of glyphosate) solution in early spring or late autumn when fescue is green but native species are still dormant. Application should be with a hand-held sprayer or wick/wiper applicator. Extreme care should be used while spraying to avoid contacting nontarget plants because Roundup is a nonselective herbicide. Do not spray so heavily that herbicide drips off the target species. Roundup should be applied while backing away from the treated area to avoid walking through the wet herbicide. By law, herbicides may be applied on public properties only according to label directions and by licensed herbicide applicators or operators.

In areas of light infestation, spot applications of Fusilade 2000 (used according to label instructions) may be effective following a burn. Fusilade 2000 selectively kills grasses and does not kill broad-leaved plants. A few isolated fescue clumps may be dug up by hand. Digging up clumps is slow, however, and sometimes undesirable in a high-quality natural area.

To maintain control of fescue, surrounding seed sources must be eliminated where possible to prevent seed from continually moving into the natural area. Livestock should be kept out of the area, because seeds are spread in manure. Seedlings and young plants that invade should be eliminated by hand digging or spot applications of either 1–2% Roundup or Fusilade 2000 the first year.

A number of practices are ineffective in controlling fescue. Mowing does not reduce existing populations and may encourage spreading by root stocks. Fire usually is ineffective when fescue is dormant. Most herbicides are ineffective if applied while fescue is dormant or after mowing. Tillage

usually is not a desirable way to control any species in a natural area, but it may be used in severely disturbed buffer areas. Grazing is ineffective since it usually eliminates other species first and encourages spread of fescue. Manipulating water levels usually is not practical on natural areas where fescue occurs. No biological controls are known that are feasible in natural areas.

REFERENCES

Schwegman, J.E. 1988. Exotic invaders. Outdoor Highlights 16(6):6-11.

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