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**VEGETATION MANAGEMENT  
GUIDELINE: Siberian elm (*Ulmus  
pumila* L.)**

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If a nearby seed source exists, Siberian elm (*Ulmus pumila* L.) can invade, and in a few years, dominate dry and mesic prairie areas particularly if they have been subjected to past disturbance. Because Siberian elm tolerates a variety of conditions, such as poor soils and low moisture, it occurs in dry regions, along roadsides, in pastures, in

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grasslands, as well as in moist soils along streams.

Siberian elm flowers in spring before leaves begin to unfold. The samaras follow quickly and are disseminated by wind, allowing the species to form thickets of hundreds of seedlings on bare ground. Seeds germinate readily and seedlings grow rapidly.

Control of this alien tree can be achieved through girdling, cutting, burning, or herbicides. No biological controls are known that are feasible in natural areas.

Girdling trees is the preferred management technique where practical. It should be performed in late spring to mid-summer when the bark easily peels away from the sapwood. Girdled trees die slowly over one to two years and do not resprout. The bark and phloem must be removed from a band around the tree trunk and the xylem must remain intact. If a tree is girdled too deeply, it will respond as if it had been cut down and will resprout from the roots.

Two parallel cuts 7–10 cm apart, cutting through the bark slightly deeper than the cambium, are needed. The bark is knocked off using a blunt object such as an ax head. The girdles should be checked every few weeks at first to make sure bark does not develop over the cut area.

If girdling is not an option, trees and any subsequent resprouts can be cut. If time or personnel constraints prevent cutting the new sprouts, the stumps created by the initial tree cutting can be treated with Roundup (a formulation of glyphosate) to prevent resprouting. While the Roundup label recommends a 50 to 100% concentration of Roundup for stump treatment, a 10 to 20% concentration has proven effective. Roundup can be applied to the cut stump either by spraying the stump with a low-pressure hand sprayer or wiping the herbicide on the stump with a sponge applicator. Care should be taken to prevent contacting nontarget plants with the herbicide, especially in high-quality natural areas. By law, herbicides must be applied according to label instructions and by licensed herbicide applicators or operators when working on public properties.

Seedlings can be pulled out by hand and small trees can be removed carefully with a grub hoe. Elm seeds blowing in from nearby areas are often a greater threat than resprouting of established elms.

A regular fire regime should control Siberian elm in fire-adapted communities. Annual mowing may be appropriate in some situations, especially where nearby seed sources cannot be removed. Siberian elms should be controlled in areas surrounding a preserve whenever possible.