



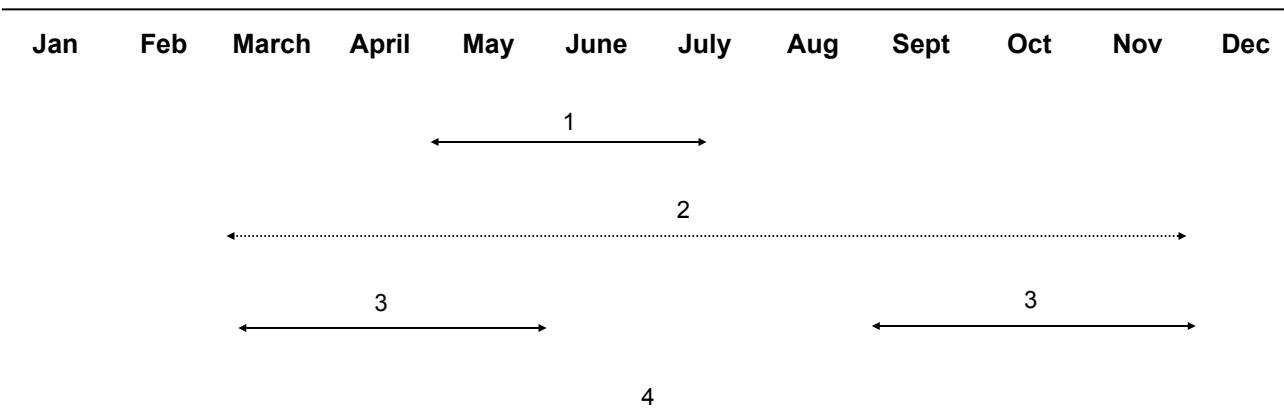
Bark



Foliage



Flowers



## Management Techniques

- (Late Spring - Midsummer) Girdling. Girdling the tree is the most effective way to kill these trees. Make 2 parallel cuts into the tree 4 inches apart from each other. The cuts should be slightly deeper than the cambium layer, but the xylem must remain intact. Make sure not to cut too deep into the tree, or the tree will respond with re-sprouting. Make sure to remove the bark in between the two cuts. Girdled trees will slowly die within 2 years, and do not re-sprout.
- (Growing Season) Hand pulling. Seedlings may be hand pulled anytime during the growing season. Small trees can be manually removed with hand tools.
- (Early Spring or Fall) Prescribed burn. A controlled fire can kill the seedlings.
- (All Year) Herbicides. Cut and stump treatment or basal bark treatment have also proved to be effective methods of killing Siberian Elms. However, it is best to use herbicides as a last resort method, which is why technique 1, 2, or 3 are preferred methods. Choose ONE of the following herbicides:
  - 12.5% triclopyr solution (selective for broadleaf plants)
  - 25% glyphosate solution (\*\*Important Note: Glyphosate is non-selective, avoid contacting non-target plants)

**\*\*\*Make sure that all Siberian Elms are removed from the area so that seeds do not spread\*\*\***

**For More Information Visit:**

<http://www.HawkeyeCWMA.org>

## **ALWAYS READ AND FOLLOW PESTICIDE LABELS.**

Proper training for prescribed fires is highly recommended.

Basic training can be found online at  
<http://training.nwrgov/courses/s130.html>  
 and  
<http://training.nwrgov/courses/s190.html>

### **Related Websites:**

<http://www.iowadnr.com/forestry/invasive.html>  
<http://plants.usda.gov>  
[www.invasivespecies.gov](http://www.invasivespecies.gov)  
[www.nps.gov/plants/alien](http://www.nps.gov/plants/alien)

### Credits:

**Photographs:** Paul Wray, Iowa State University; Steve Dewey, Utah State University; Steve Hurst, USDA NRCS PLANTS Database; Richard Old, XID Services Inc.; Tom DeGomez, University of Arizona; John M. Randall, The Nature Conservancy; Bugwood.org

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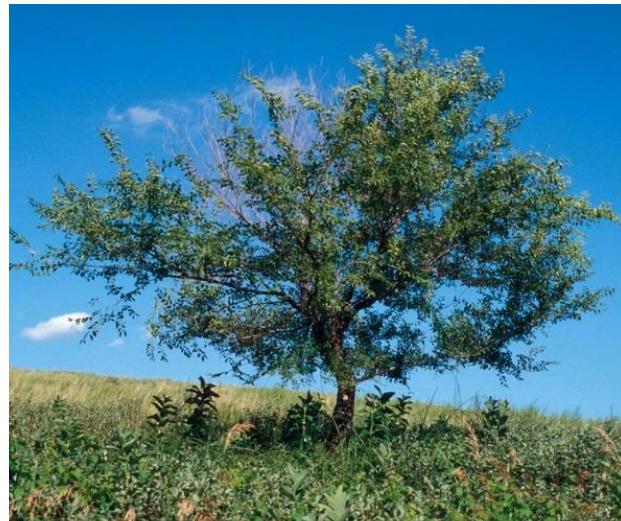


The Hawkeye Cooperative Weed Management Area (HCWMA) is a collective group of county, state, and federal agencies, nonprofit organizations and community associations who have come together to combat the invasive species problem in Eastern Iowa. The HCWMA serves Benton, Cedar, Iowa, Johnson, Jones, Linn, and Louisa Counties and is open to all interested parties. The Term CWMA, or Cooperative Weed Management Area, refers to a local organization that integrates invasive species management resources across jurisdictional boundaries in order to benefit entire regions.

All Hawkeye CWMA members (agencies, organizations, and individuals) are equal opportunity providers and employers.

# Siberian Elm

## *Ulmus pumila*



A SERIOUS THREAT  
To  
Iowa's Woodlands

## What is Siberian Elm?

- A fast-growing deciduous tree.
- Is native to eastern Asia.
- Was introduced in the 1860s for its hardiness and fast growth.
- Quickly invades natural areas.



Twigs and shoots of a Siberian Elm



Yellow fall leaves of a Siberian Elm

## What is the threat to Iowa?

- Reproduces by windblown seeds.
- Can form thickets of hundreds of saplings.
- Germinates and grows quicker than native vegetation.
- Shades out native plants.
- Destroys native habitat for indigenous wildlife.

## What does Siberian Elm Look Like?

**Identifying traits:** A deciduous tree that can grow up to 70 feet tall. Has a round, open crown with slender, spreading branches. Produces pale green flowers in early spring

### Leaves:

Leaves are small, simple, and alternate. They are dark green and smooth on the topsides, pale and fuzzy on the undersides, and are rarely more than 2 inches long. Leaves are elliptical in shape and singly toothed. Fall leaf color is yellow.



### Bark:

Bark is gray to brown in color. It becomes furrowed with light colored spots when mature.

### Flowers:

Petal-less flowers emerge in the spring, before the leaves begin to unfold. Flowers are pale green and come in clusters of 2 to 5 blossoms.

### Fruit:

Fruit are thin, flat, and come in clusters. Each fruit contains one seed which is spread easily by wind. Seeds are egg-shaped and smooth.



An infestation of Siberian Elm trees

## Native Alternatives:

### Common Hackberry (*Celtis occidentalis*)-

A medium to large deciduous tree. Its height and crown span can reach up to 60 feet. The bark has a distinct warty appearance. The drooping purple fruits are attractive to many wildlife species. Hackberry is a very strong tree that tolerates many different conditions. It works great as a shade tree.



Before selecting trees to plant in your landscape, evaluate the growing conditions of the site (i.e. soil, drainage, sunlight, space, etc.) and attempt to select tree species that will be adaptable to the available growing conditions.

### Kentucky Coffeetree (*Gymnocladus dioicus*)-

This tall native deciduous tree can reach up to 80 feet tall. It blooms from May to June with greenish-white fragrant flowers. Female trees produce an aesthetically pleasing red-brown seedpod that lasts throughout the winter.



## What is the Difference Between Siberian Elm and Slippery Elm (*Ulmus rubra Muhl*)?

### Background of Slippery Elm:

Slippery Elm, also called Red Elm for its red colored heartwood, can live to be 200 years old. It is native to Iowa and most of the central and eastern parts of the United States. This tree was traditionally used for many medicinal purposes by Native Americans.

### Differences from Siberian Elm:

The leaves are typically more than 3 inches long, which is larger than Siberian Elm leaves. The leaves are also very asymmetrical at the base and twice-serrate, unlike Siberian Elm's symmetrical and once-serrate leaves. The leaf tips of Slippery Elm abruptly come to a point. Leaves are sandpaper-like on both sides. In the fall, leaves turn a green-yellow, unlike the vibrant yellow that Siberian Elm leaves change to. The inner bark is sticky and fragrant. Trees can typically grow up to 60 feet tall.



Slippery Elm leaf