Management Techniques

1. (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.

2. (Growing Season) Hand pulling. Seedlings may be hand pulled anytime during the growing season. Small trees can be manually removed with hand tools.

3. (Early Spring or Fall) Prescribed burn. A controlled fire can kill the seedlings.

4. (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:
   A. 12.5% triclopyr solution (selective for broadleaf plants)
   B. 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***
What is Siberian Elm?
- A fast-growing deciduous tree.
- Is native to eastern Asia.
- Was introduced in the 1860’s for it’s hardiness and fast growth.
- Quickly invades natural areas.

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.

**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, that is spread easily by wind. Seeds are egg-shaped and smooth.

What is Siberian Elm?

**Native Alternatives:**

**Common Hackberry (Celtis occidentalis):**
A medium to large deciduous tree. It’s 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.

**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 Siberian Elm and Slippery Elm (Ulmus rubra Muhl)?

**Background of Slippery Elm:**
Slippery Elm, also called Red Elm for it’s 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 sandpapery 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.

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.