

Siberian elm (*Ulmus pumila*)



Photo credit: Morton Arboretum



Photo credit: S. Dewey, USU



Photo Credit: T. DeGomez, Univ. of AZ

Navajo Name
Naasts'ósl bit'iis

Origin
Native to northern China, Manchuria, and Korea

Description
Siberian elm, sometimes called Chinese elm, is a fast-growing deciduous tree species that grows to a height of 50 to 70 feet tall. Leaves are alternate, simple, and oblong, usually 1 to 3 inches long. They have serrate margins with well defined venation. Leaf can appear slightly unequal at the base, especially in older leaves. Flowers are small, green, and appear before leaves in early spring. Bark is light gray and irregularly furrowed. The fruits are round, papery, flat samaras that develop in clusters, with each containing one seed.



Photo credit: Bureau of Indian Affairs

Biology
Siberian elm is adapted to a wide range of conditions, including cold and drought, and can tolerate poor soils and low moistures. It is commonly found in dry areas, along roadsides, pastures, and grasslands. They primarily reproduce by seed, which can be carried long distances by the wind. However, they can resprout after treatment. Siberian elm was introduced as a shade tree due to its hardiness and its ability grow fast.

Locations
Found in isolated populations on the Navajo Nation along roadsides, and on homesite and business site lease areas.

Ecological Threat and Management Concerns
Siberian elm can grow quickly and displace native plant and tree species. Individual trees can produce abundant seeds that can be carried long distances by the wind. They can also resprout from cut stumps and branches. Trees can form dense thickets that interfere with wildlife migration and livestock movement.

Key ID Tips

- Round, papery samara fruits
- Simple, alternate leaves with serrated margins.
- Slightly unequal bases.

Siberian elm (*Ulmus pumila*)

Additional safety measures and limitations may apply for each method. Refer to the [Navajo Nation Integrated Weed Management Plan](#) for more information.

Mechanical/Manual Removal

Hand pulling and digging can be effective at controlling small trees; a weed wrench is recommended. Girdling trees can be effective at killing trees when done in the summer.

Biological

No biological control organisms are available for use on the Navajo Nation. However, there are a few insects in the region known to impact Siberian elm growth.

Cultural Control

Burning is not recommended as it can cause resprouting from adult trees. Grazing is not recommended as it is unknown the impacts on the animals.

Chemical

Use of herbicides can be effective. Refer to the product labels for information application rates, timing, and approved application methods.

Recommended herbicides include:

- Glyphosate
- Imazapyr
- Triclopyr

References

DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center. University of California. 544 pp.

Moore, L.M., and K. Davis. 2006. USDA NRCS Plant Fact Sheet: Siberian elm (*Ulmus pumila*). USDA NRCS National Plant Data Center. 2 pp.

USDA, NRCS. 2023. PLANTS Database. Available at <https://plants.sc.egov.usda.gov/>. National Plant Data Team, Greensboro, NC 27401-4901 USA



Bureau of Indian Affairs
 Navajo Region
 301 West Hill Street
 Gallup, NM 87301
 Phone: (505) 863-8314
www.bia.gov/regional-offices/Navajo-region