

Siberian Elm

Ulmus pumila



FAMILY	<i>Ulmaceae</i> -elms	ORIGIN	Russia, Mongolia, Korea
LIFE CYCLE	Perennial	OTHER NAMES	Chinese elm (misnomer), Asiatic elm, Dwarf elm

QUICK FACTS

- Siberian elm is a hardy, fast-spreading weed commonly planted for its ability to tolerate marginal conditions and quick provision of shade.
- It is a **drain on local water resources**; it hogs available soil moisture for itself, but sweats it out profusely during high temperatures.
- Siberian elm contributes to loss of biodiversity, as it limits the amount of water available for other plants, resulting in an **overall drier, harsher environment**.
- The roots and limbs of this hardy tree are common causes of **property and structural damage**; its roots can crack pipes and concrete, and its decaying limbs can fall from 70+ feet in the air.
- Once established, it is very difficult to remove! Even after cutting it down, this tree can re-sprout from root suckers or from the cut stump itself.

Love it or hate it, this tree is everywhere! Once popular as a landscape and ornamental tree, the Siberian elm is now a controversial fixture across New Mexican towns.

Far from its start in our nation as a purported miracle tree, Siberian elm inspires a mix of frustration and reticent appreciation from most folks today. Aside from its detrimental effects on native ecosystems and water resources, in many areas it has become a nuisance due to its prolific seeding and aggressive spread. Even where it was intentionally planted, many homeowners today are saddled with the labor and costs of removing this tenacious tree.

What does it look like?

Siberian elm is often mis-identified as “Chinese elm”, though these are different plants; Siberian elm’s is dark and furrowed, while Chinese elm has a smooth, splotchy bark. It’s also possible to mistake the young seedlings for our native alders (*Alnus* spp.); note that the Siberian elm’s leaves are always strictly alternate, while alders are more unevenly arranged.



Marisel Campbell, inaturalist.org



John M. Randall, The Nature Conservancy, Bugwood.org



Joshua C'deBaca, inaturalist.org



drienee, inaturalist.org

Plant: Highly branching with an open crown; branches grow upwards, are flexible but brittle, and may easily break off as the tree ages; usually, a build-up of leaves and woody debris can be found under mature Siberian elms. This tree has been known to reach heights of 70 feet.

Roots: Siberian elm has a broad and shallow root system. If these trees are chopped down, they have the ability to regrow from the stump and roots.

Leaves: Always alternate on the branch, almond-shaped and tapered into a point at the end; leaf margins are mildly serrated or toothed.

Flowers: Siberian elm flowers are small and grow in compact, drooping clusters of two to five. They range in color from light green to reddish and do not have petals. These flowers typically bloom between March and May, before the leaves emerge.

Seeds: Papery, flat, light green to yellow in color; the main seed is encased between translucent “wings” called samara.

Impact and Management

Water Resources

Siberian elm has developed an adaptation not to conserve water, but to keep cool in the heat: it sweats! When exposed to drought, instead of closing up its pores, Siberian elm actually releases more water from its leaves as evaporation – all while continuing to pull more water from the surrounding areas.

For a desert plant, Siberian elm is a prolific water user, in part due to the inefficiency with which it utilizes available moisture. What its root system lacks in depth, it more than makes up for in spread, with water uptake occurring well beyond the tree's canopy.

Infrastructure Issues

Mature Siberian elms in particular can become a hazard as they continue to grow, impacting infrastructure such as power lines, sewage and water pipes, etc. The tree routinely sheds off sections of its canopy that aren't getting access to sunlight anymore; the branches are heavy but the wood itself is quite brittle, causing large branches to snap off quite easily. Falling from trees up to 70 ft in height, they can do quite a lot of damage to whatever is around. They are known to grow through sewage pipes, and to crack through even asphalt roads and paved sidewalks!



A Siberian elm seedling growing out of a swamp cooler installed atop a roof.

Mikhial Parison, TSWCD

Controlling Siberian elm spread is best accomplished when the trees are not yet sprouted or still in the seedling stage and can still be pulled by hand. Once established, removal becomes progressively more difficult with age. For best success, clean up the seeds, and pull those that germinate while they are still young.

DO's

- Remove young trees promptly. Saplings grow quickly and establish deep roots. Remove them early to prevent spread.
- Replace removed elms with appropriate local species to prevent soil erosion and discourage elm regrowth.
- When cutting down mature trees, apply a systemic herbicide (like glyphosate or triclopyr) to the stump immediately to prevent regrowth.

DON'Ts

- Plant Siberian elm as a windbreak or shade tree. Despite its tough nature, its brittle wood and invasiveness make it a poor long-term choice.
- Ignore small saplings as even small trees can mature quickly and produce thousands of seeds annually.
- Compost seeds or seedlings because their seeds are very viable and can spread easily if composted improperly.



For more information on managing Siberian elm, please visit www.nmweeds.org

