SIBERIAN ELM

Ulmus pumila L.

Plant symbol = ULPU

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Alternative Names
Chinese elm, dwarf elm, Asiatic elm

Uses
Ethnobotanic: The dried inner bark was grounded into a powder and used as a thickener in soups or added to cereal flours when making bread. The immature fruit was used to produce a sauce and a wine (Facciola 1990). The hardy, heavy tough wood was used for agricultural implements and boat making (Vines 1987).

Agroforestry: *Ulmus pumila* is used in tree strips for windbreaks. They are planted and managed to protect livestock, enhance production, and control soil erosion. Windbreaks can help communities with harsh winter conditions better handle the impact of winter storms and reduce home heating and cooling costs.

Status
Considered a noxious weed in New Mexico. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values.

Description
General: Elm Family (Ulmaceae). Siberian elm (*Ulmus pumila*) is an introduced, fast-growing, small tree, five to ten meters high. The leaves are alternate, simple, elliptic to oblong-lanceolate, usually simple serrate and 2.54 to 8 cm long. The flowers are greenish, clustered, short pediceled and appear with or before the leaves from March through April (Vines 1960). The bark is light grayish-brown, irregularly furrowed, and often streaked with stains caused by bacterial wetwood. The fruit is a long and broad samara, appearing from March through April, composed of a central, dry, compressed nutlet surrounded by a thin wing. (Ibid.).

Distribution: Siberian elm is a fast-growing tree that was introduced to the United States in the 1860's. Native to northern China, eastern Siberia, Manchuria, and Korea. It is the hardest of all elms and does well even in areas with cold winters and long periods of summer droughts. Because this, elm tolerates a variety of conditions such as poor soils and low moisture, it is found in dry regions, along roadsides, in pastures and grasslands. For current distribution, please consult the Plant profile page for this species on the PLANTS Web site.

Adaptation
Ulmus pumila is easily grown in any well-drained soil type but prefers well-drained fertile soil. This species prefers full sun and succeeds well in arid regions. The tree also grows in moist soils along streams. It invades dry and mesic prairies, including sand prairies, drought resistant and fairly wind tolerant.

Establishment
Propagation by Seed: Siberian elm seeds should be sown as soon as ripe in a cold frame. Excessive drying and dewinging should be avoided as they reduce viability (Dirr & Heuser 1987). Twelve to twenty seeds are sown per linear feet in drills ten inches apart and covered ¼ inch with firmed soil. The seedbeds should be kept moist, but not particularly shaded. When the seedlings are large enough to handle, place them into individual pots and

grow them in the greenhouse for the first winter. Plant them into their permanent positions in late spring or early summer of the following year.

Management
Siberian elm has been planted in the Upper Midwest in shelterbelts and as a shade trees along boulevards and in parks (Rosendahl 1955). Some of the plantings have proved successful while others have not, because the seeds were derived from climatically different areas of the species geographical range, which varies in the level of winter hardiness (Ibid.).

Siberian elm seeds with three to eight percent moisture can be stored at 36 to 40ºF in sealed containers for eight years (Dirr & Heuser 1987). Seedlings should not be allowed to grow in a nursery bed for more than two years because the plant will develop a taproot that make lifting harder and reduces outplanting survival rates.

Weediness
Considered invasive by several sources. Consult the sources cited on the Invasive portion of the PLANTS Web site.

Cultivars, Improved and Selected Materials (and area of origin)
Readily available through commercial nurseries.

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Edited: 19jun02 jsp; 04jun03 ahv

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