# Ulmus americana 'Valley Forge'



### The U.S. National Arboretum presents 'Valley Forge', a Dutch elm disease tolerant elm.

Over the past 50 years, millions of stately elms shading the streets of the American landscape have been lost to Dutch elm disease (DED). Selected after 20 years of research, 'Valley Forge' has high levels of disease tolerance, although it is not immune to DED. This cultivar possesses the classic American elm shape and the tolerance to air pollution and poor soil conditions of the species. 'Valley Forge' is extremely vigorous and requires significant pruning and management effort, which may make it unsuitable for street tree planting. However, as a source of exceptional DED tolerance genes for elm breeding and research, 'Valley Forge' presents an exciting opportunity to revive a classic American street tree.



## **U.S. National Arboretum Plant Introduction** Floral and Nursery Plants Research Unit





### 'Valley Forge' American elm

**Botanical name:** Ulmus americana 'Valley Forge'

(NA 57842; PI 590997)

Family: Ulmaceae

**Hardiness:** USDA Zones (4)5–9

**Development:** 'Valley Forge' was a seedling selection made in Delaware, Ohio for Dutch

elm disease (DED) tolerance by A. M. Townsend and L. R. Schreiber. DED is caused by a fungus that is introduced into healthy elms from dead and dying trees by the elm bark beetle, and may also spread from tree to tree through natural root grafts. Of thousands of American elms screened by inoculation with aggressive and non-aggressive strains of the DED fungus, 'Valley Forge' was the most tolerant, although it is not immune. Released in 1995 together with *U. americana* 'New Harmony', which was the second-most

DED-tolerant seedling screened.

**Significance:** 'Valley Forge' was among the first commercially-available DED-tolerant

American elms. High levels of DED tolerance and superior horticultural characteristics including tolerance to air pollution, drought and poor soil conditions make this cultivar an ideal candidate for further breeding and

research.

**Description:** Height and Width: 26 feet tall, with a 30-foot crown spread at 12 years. Once

established, it can achieve as much as 3 feet of growth per year. **Habit:** Classic American elm form. Upright, arching, broadly vase-shaped with full,

dense leaf canopy.

**Foliage:** Leaves are 4.2-4.6 inches long, 2.5-2.9 inches wide; yellow fall color.

**Culture:** Adaptable to a wide variety of soil conditions. American elms tolerate deicing

salts, drought, poor soil conditions, air pollution and a wide pH range. Prune to establish central leader; prune and train to mitigate narrow branch angles, which are weak and will split in high wind. If planting as a street tree, plant

with other species and elm cultivars to reduce spread and impact of disease.

**Propagation:** Roots from softwood cuttings under mist, 3000 ppm - 8000 ppm IBA, in 3-6

weeks. Rooted cuttings that break bud will transplant successfully in the

current year. Provide overwinter protection.

Landscape use: Vigorous growth habit requires consistent maintenance, which may make this

selection unsuited for street tree plantings. Best used for breeding and research. For landscape use, select 'New Harmony', 'Jefferson', or other

cultivars.

**Availability:** Distributed to wholesale nurseries in 1994-1996. Limited wholesale and mail

order availablity as of 2004.

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