



# Invasive Species Leaflet



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## *Paulownia tomentosa* (Princess Tree)

### Initial Introduction and Expansion in Range



Native to eastern Asia, *Paulownia tomentosa* has been widely planted for horticultural purposes in North America from Montreal to Florida and west to Missouri and Texas. This tree is moderately cold-hardy so it has spread principally in the Eastern and Southern portions of the United States. In North Carolina it poses a particular problem in the foothill and mountain regions.

*Paulownia tomentosa* is capable of flowering within 8 to 10 years and a mature tree can produce millions of seeds. The seeds are small and winged, dispersing easily in the wind. This aggressive tree grows rapidly (up to 15 feet per year) in all types of disturbed habitats.



### Description and Biology

- Small to medium sized deciduous tree up to 50 feet in height.
- Large (5 to 10 inches long on mature trees) heart-shaped leaves arranged oppositely along the branches. Young plants and stump sprouts have leaves up to twice the size.
- Thin grayish brown bark with shallow fissures.
- Flowers in April and May before leaf emergence. Arranged in upright pyramidal clusters, the flowers are lavender and showy.
- Fruits are oval capsules initially sticky and green, later turning brown and dry persisting on the tree through the winter.
- Often confused with *Catalpa bignonioides* (southern catalpa). The long slender persistent beans and whorled leaves of *Catalpa* help distinguish it from *P. tomentosa*.

### Habitats Susceptible to Invasion

*Paulownia tomentosa* is an extremely fast-growing competitor with native species in disturbed natural areas including forests, stream banks and steep rocky slopes. It tolerates high soil acidity, drought, and low soil fertility enabling it to survive, grow, and reproduce on harsh, exposed sites. Roadsides provide ideal habitat and migration routes for this plant.



## Prevention and Control

*Paulownia tomentosa* was originally introduced as an ornamental and is still planted for that purpose. The wood of this tree is highly prized in Asia leading to the establishment of commercial plantations in the United States. Successful control of this plant will first require prevention of propagation and planting.

Young seedlings (no more than 0.5 inch in diameter) can be pulled by hand when the soil is moist. Care must be taken to remove the entire root since broken fragments may re-sprout.

Seedlings and young trees can be controlled with a foliar solution of 3 percent glyphosate plus a 0.5 percent non-ionic surfactant to thoroughly wet all leaves. For larger trees, cut them down within 6 inches of the ground and immediately spray the freshly cut stump surface and sides with a solution of 50 percent triclopyr. It is best to apply the herbicide in the summer to early fall while the plant is translocating nutrients to the roots.

Trees up to 6 inches in diameter can be controlled with a basal bark application of herbicide. This method should be used judiciously since it takes a lot of chemical and can result in overspray. It has been used successfully in situations where no other technique is easy such as cliff faces or other exposed sites. Apply a solution of 25 percent triclopyr and 75 percent mineral oil to the basal parts of the tree to a height of 12 to 16 inches from the ground during the late winter/early spring or summer. All treatments should be followed up the next year to monitor and control basal sprouts and root suckers.

***THE LABEL IS THE LAW!***

***WHEN USING ANY PESTICIDE, FOLLOW ALL LABEL INSTRUCTIONS***

Citations:

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*Paulownia tomentosa* photography by Leslie J. Mehrhoff, University of Connecticut, Bugwood.org. (top left), Cheri Smith, NCDOT (top right) and Steve Mitchell, NCDOT (bottom).

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