

LANDOWNERS FOR WILDLIFE



INVASIVE PLANTS

By Jimmy Ernst, Wildlife Biologist

One of the greatest threats to wildlife habitat today is the spread of exotic, invasive plants. Exotic and invasive plants are not native to Louisiana and may rapidly dominate the beneficial plants that have evolved in our native habitats. These invaders out-compete native species, are very prolific, are not usually affected by native insects or diseases, and grow very rapidly. The long lists of exotic invasive species that have invaded terrestrial Louisiana habitats include Chinese tallow trees, Chinese privet and cogongrass. Aquatic invasive species include hydrilla, salvinia and water hyacinth - all of which clog waterways and completely replace beneficial aquatic plants. As they grow, they block sunlight penetration into the water, and when they die, their decomposition removes dissolved oxygen from the water column, oftentimes killing fish and aquatic animals.

Control measures must be an ongoing part of any land management plan if native habitat maintenance is the objective. Landowners and land managers will most likely be faced with invasive plant problems at some point. Many times, chemical control is the only effective solution to eradicating these nuisance species, and it can be an expensive and time-consuming process that requires professional assistance. This pamphlet offers descriptions and control recommendations for Chinese tallow trees, Chinese privet and cogongrass.



CHINESE TALLOW TREES

Chinese tallow trees (*Triadica sebifera*) are known by several common names including popcorn tree, chicken tree and cancer tree. These are small deciduous trees, rarely reaching 60 feet. The distinctive leaves are alternately arranged and have smooth margins and long, pointed tips. They are well known for their fast growth and fall color. The young trees have smooth bark that becomes thicker and more furrowed as tree diameter increases. They rapidly appear in disturbed soil, and may completely dominate levees and berms after dirt work projects.

Tallow trees are very difficult to eradicate. Cutting them produces multiple, fast-growing stump sprouts. Frequent mowing or prescribed burning of fields can keep them under control, but if left alone, they will grow rapidly and spread quickly. They readily sprout from cut roots, so disking or plowing are not long-term solutions.



Chinese tallowtree

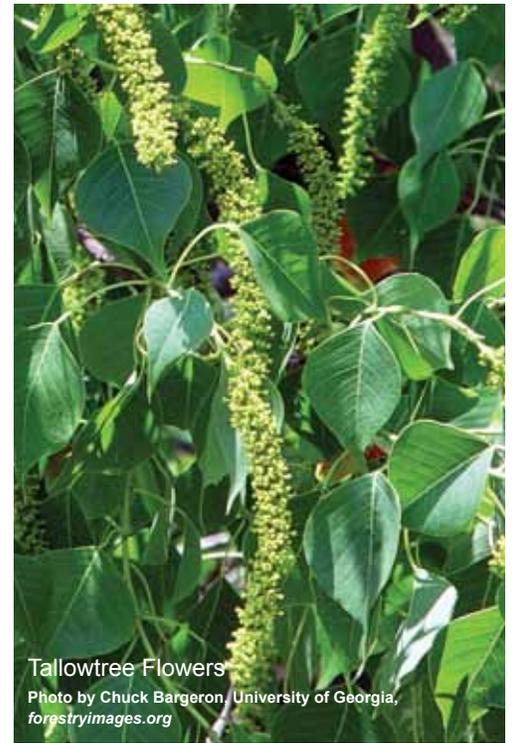
Photo by Thomas Ellis, Jr., Baldwin County, Alabama Planning Committee, forestryimages.org

Chinese tallowtree infestation

Photo by Charles T. Bryson, USDA Agricultural Research Service, forestryimages.org

CHINESE TALLOW TREE CONTROL

Herbicides are the most effective means of controlling tallow trees. Small trees can be killed using a foliar or basal spray treatment while larger trees are killed using a basal spray or injection. Foliar treatments may be made with a small garden sprayer, a backpack sprayer, or an ATV or tractor mounted tank sprayer. Aerial applications with aircraft may be required to control excessively large acreages. Basal treatments are usually done manually, normally requiring the use of a backpack sprayer. Injection may be done with a machete and a squirt bottle, a very labor-intensive method. A specialized forestry tree injector may be necessary to treat large acreages or high numbers of stems. The herbicides used to kill tallow trees are usually non-selective and will readily kill non-target vegetation so caution must be used to protect non-target species. A common selective broadleaf herbicide used as a foliar application or by injection to control tallow trees is 2,4-D. A list of effective chemicals, listed by application method, along with generic names and common trade names are listed in *Figure 1*.



Foliar Application:

Imazapyr (Arsenal AC)
Triclopyr 2% (Remedy*, Garlon 4*, Tahoe 4E*)
2,4-D

Basal Spray:

Triclopyr (Remedy*, Garlon 4*, Tahoe 4E*)
10-20% (Pathfinder II - ready to use)

Injection:

Imazapyr (Arsenal AC)
Triclopyr (Remedy, Garlon 3A, Tahoe 3A)
Picloram (Pathway)
& 2,4-D in combination
2,4-D

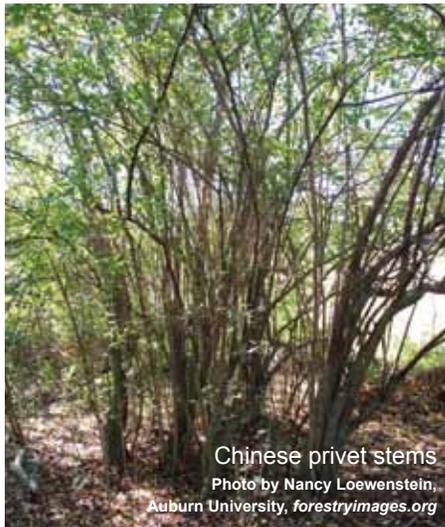
* Mixed with diesel





Chinese privet hedge

Photo by James H. Miller, USDA Forest Service, forestryimages.org



Chinese privet stems

Photo by Nancy Loewenstein, Auburn University, forestryimages.org



Chinese privet fruit

Photo by James Miller, USDA Forest Service, forestryimages.org



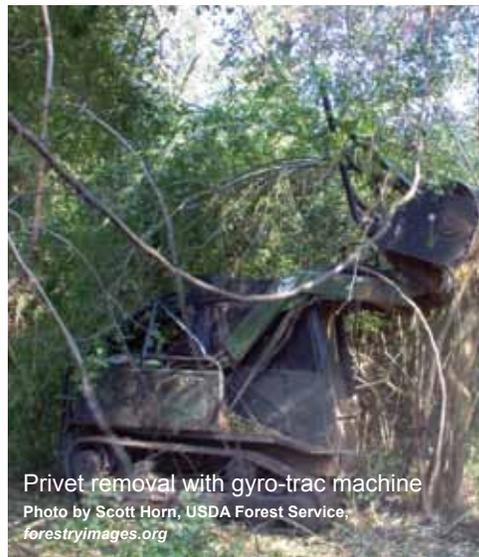
Privet Branch and leaves

John Tann, Wikimedia Commons



Hand pulling control method

Photo by James H. Miller, USDA Forest Service, forestryimages.org



Privet removal with gyro-trac machine

Photo by Scott Horn, USDA Forest Service, forestryimages.org

CHINESE PRIVET

Chinese privet (*Ligustrum sinense*), often called privet hedge, was introduced into the United States from China in the mid 1800s for ornamental use. Since then, it has escaped into the wild to become a highly invasive species, forming dense evergreen shrub thickets along roadsides, ditches, fencerows, forested areas and old home sites. These thickets out-compete and displace native vegetation. The result is severely degraded wildlife habitat and loss of aesthetic value of the forest or field. It reduces access for recreational purposes and increases maintenance costs of fences and rights-of-way.

Privet is an evergreen shrub that grows up to 30 feet tall, and is typically very dense with multiple stems showing thin, pale gray bark. The leaves grow opposite each other on long, thin stems and are 1 to 1.5 inches long and 0.5 to 1 inch wide. In the spring, privet produces numerous clusters of small, fragrant white flowers. The flowers give way to numerous clusters of small, berry-like fruits (drupes) that remain green throughout summer and fall until they ripen and turn dark purple or almost black in winter.

CHINESE PRIVET CONTROL

Physical removal of the plant is one method of control, but because it can re-sprout from the roots, complete control of the plant by removal is largely impractical. Heavy equipment can be used to clear large areas of above-ground privet, but this process is expensive and will usually cause considerable soil disturbance and erosion problems. Any root sprouts that appear after clearing must be treated with a herbicide or the plant will quickly reestablish itself.

Herbicides are highly effective against privet when properly used. Foliar applications of glyphosate herbicides (Roundup®, Accord®, and Rodeo®) are effective when applied at 2 percent rates with ½ percent of a non-ionic surfactant.** Privet can be treated during the winter when more desirable species are dormant, but not during below-freezing temperatures. Injection and basal spray are two other methods of herbicide application that are effective against privet.

** Always follow label directions.



Photo by Ted Bodner, Southern Weed Science Society, forestryimages.org

COGONGRASS

Cogongrass (*Imperata cylindrica*) has become a serious problem for many Louisiana landowners and land managers. It was accidentally introduced into the United States in south Alabama around 1911 when it was used as packing material in Japanese imports. Since its escape, it has spread throughout many southeastern states.

Cogongrass is often found as a circular patch of yellow-green grass, 1 to 4 feet tall. The leaves are ½ to 1 inch wide and the midrib is offset to one side. The midrib of most native grasses is located in the center of the leaf. The edges, or margins, of the leaves are serrated, rough to the touch and may turn a reddish color in the fall. The serrated margins and extremely high silica content make the plant undesirable as an animal forage crop. In the spring, cogongrass produces white, fluffy seed heads approximately 2 to 8 inches long, and each seed head may contain 3,000 seeds. Cogongrass can form extremely dense stands that eliminate nearly all other plants. In addition, stands of cogongrass burn extremely hot and can cause mortality in normally fire tolerant plants such as longleaf and loblolly pine.

CONGONGRASS CONTROL

Small patches of cogongrass in open areas may be eliminated by frequent disking during the growing season. Disking should reach a depth of 6 inches with repeated disking every six weeks from early spring through fall. If the area cannot be disked, chemical control is necessary. Herbicides containing the active ingredient glyphosate (Roundup®) or imazapyr (Arsenal® or Arsenal AC®) are very effective, but will likely require multiple applications for full control. Initial applications in the late summer or fall will usually kill the leaves and stems. Spring-time re-growth should be treated before the plant flowers. A third treatment in the fall may be necessary for complete eradication.

Mowing or prescribed burning the dead growth in winter will increase the efficiency of subsequent chemical applications. Allowing the plant to re-sprout before spraying herbicide will provide a more effective control of cogongrass.

Great care should be taken to clean equipment such as disks, mowers and tractors to avoid spreading cogon grass seed or rhizomes to new areas.



Photo by Charles T. Bryson, USDA Agricultural Research Service, forestryimages.org



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