

TIMELY INFORMATION

Agriculture & Natural Resources



Invasive Plants in Alabama Forests

What are invasive plants? Plants that were introduced by human activity, either accidentally or on purpose are considered non-native or exotic. This is not necessarily a problem. Many agricultural crops and ornamental plants are non-native yet are beneficial to our economy and well-being. However, some non-native plants escape cultivation and become weedy pests. A non-native species is considered invasive when it causes or is likely to cause economic harm, environmental harm, or harm to human health. Kudzu may be the most notorious invasive plant in Alabama but it certainly isn't the only one of concern.



Figure 1 – Kudzu infestation

Why should I care? Invasive species are of concern because of the many negative impacts they can have within natural areas, production forest lands, pastures, rights of way, roadsides, and urban forests. Survival and reproduction of native species is threatened, which further impacts availability of wildlife food and habitat. Forest productivity and forest aesthetics are reduced and forest management is made more difficult. Fire regimes, water cycles, and soil characteristics can also be impacted. Ultimately, infestations reduce crop and forest productivity, degrade biodiversity, impact wildlife, hamper hunting, fishing and other outdoor activities, and reduce overall ecosystem health. In addition to the financial costs associated with harm to the environment and reduced land productivity, control of invasive plants costs billions of dollars each year.

What is the best way to control invasive plants? Maintaining a healthy forest is an important part of preventing the establishment and spread of invasive plants. Regular surveillance of your property and inspection of off-site materials and equipment is also crucial for catching invasive plants before they can get established. For effective surveillance, it is important to know how to identify invasive plants and to be familiar with species of concern in your area. If invasive plants do get established, finding and controlling infestations quickly will significantly reduce cost and effort.

Control strategies can involve a variety of approaches including mechanical (e.g., pulling, cutting, mowing, mulching), grazing (e.g., goats), use of prescribed fire, and/or chemical (e.g., herbicides). Typically, an integrated approach using more than one 'tool in the toolbox' is most effective. The best approach also depends on the species, size of the plants, size and density of the infestation, presence of desirable species, the site, and the resources available for the job. Establishing fast-growing, desirable plants following invasive plant removal will help prevent re-establishment of invasive species and slow soil erosion. Maintaining competitive, desirable plants along roadsides and disturbed areas can also prevent or slow establishment and spread of invasive plants.

How can forest management affect invasive species? Forest management practices that disturb the soil, increase light levels to the forest floor, remove native vegetation and/or involve the use of off-site equipment can favor the establishment, growth and spread of invasive species. These practices include thinning, release treatments, harvesting, site preparation and burning. The establishment of food plots can also introduce invasive species through intentional planting or use of contaminated equipment. Streamside management zones may serve as a haven for invasive species which may spread to adjacent lands. Pine straw production strategies can create conditions favorable to the establishment and growth of Japanese climbing fern, and bales and equipment from infested stands can spread the fern long distances.

Which plants are invasive? Currently, over fifty of the species listed as invasive in Alabama can occur in natural and managed forests. Cogongrass, Japanese climbing fern, Japanese stiltgrass, Chinese tallowtree or popcorn tree and Callery pear are of particular concern due to their rapid spread, negative impact on forest productivity and difficulty of control. A full list of invasive plants in Alabama can be found on the Alabama Invasive Plant Council website (<http://www.se-eppc.org/alabama/>). Distribution maps showing the current range of invasive species can be found on the Early Detection and Distribution Mapping System site (<http://www.eddmaps.org/>).

Good rules to follow:

- Learn to identify invasive plants and incorporate their management into land-use plans.
- Prevent introduction of invasive plants.
- Contain and treat new infestations of invasive plants. For many species, a single plant can initiate an infestation. Controlling small infestations (sometimes simply removing a single plant) is easier and more cost effective than trying to control well-established, rapidly spreading infestations.
- Minimize transport of invasive plants from infested to un-infested areas. Clean vehicles and equipment and avoid working in infested areas when seeds are present or when soil conditions allow movement of roots or rhizomes.
- Minimize soil disturbance as invasive plants often prefer disturbed ground. Monitor areas where soil has been disturbed.
- Contact a natural resource professional at your county Alabama Forestry Commission (AFC), Alabama Cooperative Extension System (ACES) or Natural Resource Conservation Service (NRCS) office to learn more about invasive plant identification and control. Most consulting foresters will also be able to provide assistance.

For more information:

- **Invasive.org** - <http://www.invasive.org/>
- **Field Guide to Identification of Invasive Plants in Southern Forests (with management strategies)** - <http://wiki.bugwood.org/Archive:IPSF>
- **ACES** - <http://www.aces.edu/natural-resources/invasive-species/>
- **The Alabama Invasive Plant Council** - <http://www.se-eppc.org/alabama/>
- **National Invasive Species Information Center** - <https://www.invasivespeciesinfo.gov/>

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