



EXOTICS or invasives?

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Invasive plant species are those that are introduced to an area, establish a breeding population, and spread to an extent that causes damage to agriculture or natural resources. This is different from **exotic species**, which are merely plants that have been introduced by human intervention to an area outside their native habitat.

While not all exotic plants are invasive, the great majority of invasive plants are exotic to their current environment.

In case you are wondering why that should be important to you, over 60% of invasive plants were introduced for horticultural uses, both ornamental and food. Many desirable plants with importance to the nursery industry were introduced from other countries, but so were many interlopers that crowd out native plants, reduce biodiversity, and displace plants that provide shelter to wildlife. The purpose of this article is not to discourage the introduction of new varieties, but to urge caution and increase awareness of potential problems that that practice may cause.

Characteristics of invasive plants include rapid growth and high reproduction potential.

Most invasive species produce copious numbers of easily-dispersed seed. Many reproduce easily, both vegetatively and sexually. Most grow faster than native plants, and thus easily crowd out slower-growing plants. The invasive plants that thrive in the United States do so because they originate in parts of the world with a similar climate, such as China and Japan. This is often evidenced by their scientific names, such as *Ligustrum sinense* (Chinese Privet) and *Lonicera japonica* (Japanese Honeysuckle). These invasive plants and others spread because pests and pathogens that serve to restrict the growth and range of these species in their native environments are not present in

their new environment. Without the restraint imposed by other organisms in their natural habitats, invasive plants grow unchecked in the new landscape.

New plant varieties are introduced by the nursery industry, individuals, and government agencies because they have desirable characteristics, such as showy flowers, interesting texture, or rapid growth. However, when these plants move beyond their intended sites, they crowd out native species, increase the risk of fire, alter soil characteristics, interfere with natural succession, and cost millions of dollars per year in control costs. It is difficult to predict which plants will become useful additions to the landscape and economy, and which will become pests that detract from natural beauty and reduce the value and utility of land. However, plants that exhibit the characteristics listed above are more likely than others to become invasive.

Although there are numerous reputable nurseries that sell plants via mail order, there are also opportunistic vendors that market undesirable and invasive plants with unwarranted hype through newspaper inserts and mass mailings. Examples of those plants are *Paulownia* sp. (Princess Tree), *Triadica sebifera* (Popcorn Tree), *Ailanthus* sp. (Tree of Heaven), and *Elaeagnus* sp. (Autumn or Russian Olive). Many times the advertisements for such plants do not include the scientific name and make unrealistic claims of beauty and hardiness. Claims such as "Grows ten feet in one year!" or "Great for windbreaks!" or "Super-early maturing!" are frequently seen.

Both dealers and consumers should beware of plants touted as extremely fast-growing or early-maturing, as these are common traits of invasive plants that successfully compete with native species for water, nutrients, and light.

The best example of a plant that was introduced to positively impact the environment, but had the opposite effect,

is kudzu (*Pueraria montana* var. *lobata*). Kudzu was initially planted for soil conservation and erosion control, but it is now known as "the plant that ate the South." Likewise, *Rosa multiflora* was introduced as a rootstock for hybrid roses and promoted as a "living fence." Now the thorny weed has taken over pastures and cropland in most parts of the US.

Sometimes people see a colorful or eye-catching plant, dig it up, and transplant it to their yards, unaware that they may be breaking state or federal noxious weed laws. Purple loosestrife (*Lythrum salicaria*) and water hyacinth (*Eichhornia crassipes*) are examples of plants that are colorful and attractive, but highly invasive weeds.

Cogon grass (*Imperata cylindrica*), considered one of the ten worst weeds in the world, was recently planted in at least four locations in South Carolina — by a person who mistakenly thought that it was a native plant.

Instead, it is a federal and state noxious weed. The Department of Plant Industry (DPI) is now working with landowners to eradicate the cogon grass on those sites. A purple form of this grass is sold as an ornamental called "Japanese Bloodgrass," which can revert to the green, highly-invasive form.

Many exotic species enrich our lives by providing variety to our diets and desirable color and texture to our landscape. Before you enhance your landscape with a new species consider the characteristics you want to introduce and choose a native species that meets your criteria.

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For additional information on invasive plants, please contact the Clemson University Department of Plant Industry at 864-646-2130 or <http://dpi.clemson.edu>