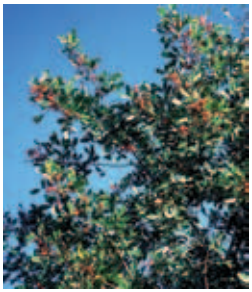
Invasive Trees

Invasive tree species hinder reforestation and management of rights-of-way and natural areas as well as dramatically alter habitats. Some species occur initially as scattered trees and eventually form dense stands if not controlled. Most spread by prolific seed production and abundant root sprouts. Depending on conditions, they can be eliminated with herbicides by stem injection, cut-treat, soil spots, basal sprays, and foliar sprays. Following stem control, total elimination requires surveillance and treatment of root sprouts and plant germinants that originate from the soil seed bank.

Brazilian Peppertree

Michael Jordan



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Brazilian peppertree (*Schinus terebinthifolius* Raddi) is an evergreen shrub or small tree to 40 feet (12 m) in height that often grows in dense infestations and has many short trunks or arching stems of contorted branches. Drooping, odd-pinnately compound leaves smell of turpentine when crushed. Many multibranched clusters of small whitish flowers appear in summer and fall that yield abundant clusters of spherical red pepper-smelling fruit in winter (only on female plants). Seed is produced as early as 3 years. Germination mainly occurs November to April, with seed viability ranging from 30 to 60 percent. Seedling mortality is mostly due to drought.

Seed is spread mainly by birds, but also by ground animals, gravity, and water. Seedlings can establish in shade, but open disturbed areas are most susceptible to invasion. Infestations intensify by many root sprouts that yield entangled stems and branches with abundant foliage having allelopathic chemicals. Burning is intense due to chemicals in the foliage, and can destroy seeds as well as result in basal and root sprouts that can outgrow native species. The species range is presently limited to Florida and extreme south Texas, but with warming trends, spread northward is projected.

Management strategies:

- Cut when seeds are not present and avoid contacting the inter-bark since a rash can result. Seeds appear only on female plants.
- Minimize disturbance in areas where this plant occurs.
- Treat when new plants are young to prevent seed formation.
- Manually pull new seedlings and tree wrench saplings when soil is moist, ensuring removal of all roots.
- Mechanical and burning treatments should be used with care and extra caution when done in conjunction with herbicide treatments.
- Treatment combinations should be used that are appropriate for dense thickets with limited access. Access trails may need to be cut.

Recommended control procedures:

Trees. For stems too tall for foliar sprays, cut large stems and immediately treat the stump tops with Garlon 3A or a glyphosate herbicide as a 25- to 50-percent solution (3 to 6 quarts per 3-gallon mix), Garlon 4 as a 12-percent solution (3 pints per 3-gallon mix), or Stalker* as a 12-percent solution (3 pints per 3-gallon mix) when not fruiting. ORTHO Brush-B-Gon, Enforcer Brush Killer, and Vine-X are effective undiluted for treating cut-stumps and available in retail garden stores (safe to surrounding plants). For treatment of extensive infestations in forest situations, apply Velpar L* or Hyvar X-L* to the soil surface within 3 feet of the stem (one mL squirt per 1-inch stem diameter) or in a grid pattern at spacings and dilutions specified on the herbicide labels.
Saplings. Apply a basal spray of Garlon 4 as a 20-percent solution (5 pints per 3-gallon mix) in a labeled basal oil product, vegetable oil or mineral oil with a penetrant, or fuel oil or diesel fuel (where permitted); or apply undiluted Pathfinder II in the fall when saplings are flowering.
Seedlings and saplings. Thoroughly wet all leaves with one of the following herbicides in water with a surfactant: a glyphosate herbicide or Garlon 3A as a 2- to 3-percent solution (8 to 12 ounces per 3-gallon mix) or Arsenal AC* as a 0.5-percent solution (2 ounces per 3-gallon mix); and in wet pastures and aquatic sites, Habitat* as a 0.5- to 1-percent solution (2 to 4 ounces per 3-gallon mix) or Clearcast* as a 2-percent solution (8 ounces per 3-gallon mix).

* Nontarget plants may be killed or injured by root uptake.