

Weed Information Sheet:

black locust

Robinia pseudoacacia

Identification:

Fabaceae (Legume family)

Common Perennial tree, deciduous **Height:**30-90' **Width:**30-40'

Leaf Arrangement: alternate

Flower: White, Cream

Blooms: Late spring to Early

Fruit: Pod

Fall Color:

Black locust can grow up to 80' in height. The bark of young trees is greenish and turns gray-brown once mature. In mature trees the bark is deeply furrowed with flat-topped ridges, looking very similar to the bark of walnut or ash trees. Black locusts leaf-out several weeks later than other trees, making them seem dead in mid-spring when other trees are greening-up. Leaves are pinnately compound with 7 to 21 oval, smooth edged leaflets, with a single leaflet at the end. The rounded tips of the leaflets are the easiest way to differentiate locust from walnut. Black locust has short, stubby, paired thorns on smaller branches where leaves attach to the stem. White, showy, fragrant, pea-like flower clusters bloom in late spring. Seed pods are 6-10" long, brown, skinny and flat, similar in shape to a sweat pea, often hanging onto the trees into winter.



black locust

Robinia pseudoacacia



NR-40 Restricted

AKA:

Description & Impact:

Black locust is a fast growing deciduous tree in the legume family. It has been introduced to the upper Midwest from the Appalachia region, having been planted extensively in the early 1900's in erosion control efforts. Unfortunately, its coarse root structure and competitive nature make it poorly suited to this purpose. In natural areas, black locust can form dense monocultures shading out native vegetation. Or it can be mixed into a woodland community, where each tree trunk is part of the same organism all connected by underground roots. These robust root systems readily sprout new saplings allowing for quick expansion, and making control difficult. Black locust prefers open and sunny locations such as prairies and savannas, but also grows in woodlands.

The leaves, seeds, and bark are toxic to livestock and humans if ingested, though goats appear to be resistant to the toxins. The wood of black locust can be valuable. It has a high BTU rating for use as firewood. This dense, rot-resistant wood is also valued for woodworking and construction, and is particularly useful for constructing outdoor structures.

Control Methods:

Every stem in the colony must be treated at the same time in order to prevent the root system from receiving energy from the remaining stems. This work is best done in the dormant season to prevent collateral damage to neighboring plants. It is best to treat black locust by girdling the larger stems, and only cutting the stems too-small (or numerous) to effectively girdle to the ground. Cutting the larger stems usually stimulates aggressive suckering, which can be avoided if girdling is used. A potent herbicide must then be applied to the cut surfaces. Aminopyralid (Milestone®) and clopyralid (Transline®) are both effective at killing black locust. These herbicides are selective and broadleaf specific, impacting plants in only certain broadleaf families and not harming grasses at all. Another herbicide that can kill the entire black locust root system is Imazapyr (Polaris®, etc). Imazapyr is a potent broad-spectrum herbicide, any over-spray during application will leave a deadzone, so apply with care.

Basal bark treatment with Milestone or Transline mixed in mineral oil is also effective on smaller stems. Apply with a backpack sprayer from the base of the tree up the trunk 1-1.5'. This method is most effective on smaller, thinner barked stems (less than 12" in diameter) and must be done very thoroughly to completely saturate the bark of the tree.

Resprouts can be treated with a foliar application of the same herbicides.

Always read herbicide labels carefully before use and apply according to the instruction on the product label.

Black locust is a species for which I really only recommend treating with the aid of herbicides to kill the roots. Studies indicate that neither cutting nor girdling alone is effective at killing a clone of black locust. Cutting and girdling stimulates suckering from the root system. Girdling large stems and then regularly repeated mowing or grazing with goats, *may* be effective at killing the root system, but this treatment would need to be frequently applied if it is to have any chance of success.

Citations: