Weed Identification and Control Sheet:

GOOD OAK LLC ecological services

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Black Locust (*Robinia pseudoacacia*)

WI NR-40: Restricted

-4 Exotic Invasive

DESCRIPTION:

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 1900s 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 dense forests.

The leaves, seeds, and bark are toxic to livestock and humans if ingested, though goats appear to be resistant to the toxins. Black locust wood is relatively valuable. It has a high BTU rating for use as firewood. This dense, hard, rot-resistant wood is also valued for woodworking and construction, though the market for the wood is limited due to the challenges of working it.

IDENTIFICATION:

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. 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 from May to June. Seed pods are 6-10" long, skinny and flat, similar in shape to a sweat pea, but are brown in color.

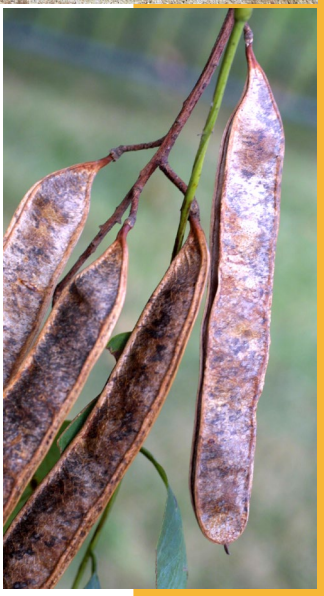
CONTROL METHODS:

Organic: 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. Regularly repeated grazing with goats, mowing and/or burning may be effective at killing the root system, but this treatment will need to be aggressive if it is to be effective.

Chemical: 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. Commonly, black locust is cut down or girdled, then herbicide is applied to the cut surface. Aminopyralid (Milestone®) and clopyralid (Transline®) are both effective at killing black locust, applied to the stump at a 5% concentration. Both water and mineral oil can be used as carries for these chemicals, but regular agitation is needed when mixed in oil.

Basal bark treatment with Milestone or Transline at 5% mixed in mineral oil. 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 and must be done very thoroughly to completely saturate the bark of the tree.

Resprouts can be treated with a folliar applaction of the same herbicides, at roughly 0.25 oz/gal. Always read herbicide labels carefully before use and always apply according to the instruction on the product label.



NATIVE ALTERNATIVES:

Honey locust (*Gleditsia triacanthos*) and Kentucky coffee tree (*Gymnocladus dioicus*) are two native species of trees in the legume family which are similar in appearance to black locust and also have attractive, brightly colored flowers.

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