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VEGETATION MANAGEMENT GUIDELINE

Bush Honeysuckles: Tartarian, Morrow's, Belle, and Amur Honeysuckle (*Lonicera tatarica* L., *L. morrowii* Gray, *L. x bella* Zabel, and *L. maackii* (Rupr.) Maxim.)



Photos by Kenneth R. Robertson, INHS

SPECIES CHARACTER

Description

The four species of honeysuckle shrubs planted (Tartarian, Morrow's, Belle and Amur) that cause the more frequently observed invasive problems will be referred to as bush honeysuckle. Bush honeysuckles grow to heights of 6-20 feet (1.8-6 meters). They are deciduous, with opposite, entire leaves, and often the older branches are hollow. Differences between individual species of non-native honeysuckles are dependent on the presence of pubescence or hair on leaves and flowers and the length of flowers and their stems. Bush honeysuckles flower during May



and June. Flowers of Tartarian honeysuckle are generally pink, but may vary from white to bright red. Amur and Morrow's honeysuckle flowers are white, fading to yellow as they age. Belle honeysuckle is a hybrid cross between Tartarian and Morrow's honeysuckles and has many characteristics of both parents. Fruits may be red or yellow and found in pairs in the axils of the leaves. In addition, there are presently at least 7 other species of bush honeysuckle or hybrids of these species occurring in Illinois. The best present key to identify these exotic honeysuckles is Swink and Wilhelm, Flora of the Chicago Region (1979).

Similar Species

Bush honeysuckles are easily separated from native honeysuckle species by their stout, erect shrub growth. All native species are "woody twiners" that are vine-like in nature. Native honeysuckle species are grape honeysuckle (*Lonicera prolifera*), yellow honeysuckle (*Lonicera flava*), and red honeysuckle (*Lonicera dioica*). A rule-of-thumb regarding honeysuckles found in Illinois is that all honeysuckles with a bushy growth form are alien species, no native bush honeysuckles are known to occur in the State. However, a shrub should be accurately identified as a bush honeysuckle before attempting any control measures. If identification of the species is in doubt, the plant's identity should be confirmed by a knowledgeable individual and/or by consulting appropriate books.

Distribution

Bush honeysuckles are native to Asia and Western Europe. Tartarian honeysuckle was introduced to North America in 1752. The other species were introduced in the late 1800's and 1900's. Although their distribution is closely related to horticultural outlets, especially near larger urban areas, where used as ornamentals, rural infestations are common when the species are used to improve wildlife habitat. In Illinois, the northern 2/3 of the state is the prime area of naturalization, centering around the Chicago region. Some older, localized outbreaks in southern and central Illinois have been noted. Although not recorded officially from that many counties, bush honeysuckles are probably now found in most Illinois counties.

Habitat

Bush honeysuckles have a broad tolerance to a variety of moisture regimes and habitats. Most natural communities are susceptible to invasion by one or more of the species. Often the source of the invasion comes from a planting or from a highly disturbed successional community in which the honeysuckle has flourished. Wetlands, prairie, and forested communities are all affected. Habitat disturbance appears to be a key to introduction of these species.

Life History

The spread of bush honeysuckle is generally accomplished by birds. Fruits are consumed readily upon ripening during summer. Bush honeysuckle plants commonly are found growing under tall shrubs or trees that act as perch areas for birds. Seeds appear to need a cold stratification period in order for the seed to break dormancy. Seedlings establish in areas of sparse herbaceous vegetation and can tolerate moderate shade. It is suspected that bush honeysuckle may produce allelopathic chemicals that enter the soil and inhibit the growth of other plants, preventing native plants from competing with the shrub. Shading by bush honeysuckle may also limit the growth of native species. Bush honeysuckles leaf out before many native species and hold their foliage until November.

Effects Upon Natural Areas

Bush honeysuckle will invade a wide variety of native habitats, with or without any previous disturbances. Although individual species may have certain environmental tolerances (e.g. Tartarian in drier habitats, Morrow's in moister areas) at least one of the four types is capable of inhabiting most natural communities. Affected natural communities include: lake and stream banks, marsh, fens, sedge meadow, wet and dry prairies, savannas, floodplain and upland forests.

CONTROL RECOMMENDATIONS

Control measures may enlist one or more of the following techniques: prescribed burning, hand pulling of seedlings, cutting, and herbicide treatments.

A recently introduced pest, the European Honeysuckle aphid, somewhat controls flower and fruit production in some of the bush honeysuckles. Heavy infestations cause tips of branches to form "witches brooms" or deformed twigs. This often greatly reduces fruit production. Native ladybug beetles, however, have been noted to control this aphid.

RECOMMENDED PRACTICES IN NATURAL COMMUNITIES OF HIGH QUALITY

In fire-adapted communities, spring prescribed burning will kill seedlings and kill the tops of mature plants. Bush honeysuckles readily resprout and repeated fires are necessary for adequate control. It may be necessary to burn annually or biennially for five years or more for effective control.

Seedlings may be hand-pulled when soils are moist. All of the root should be removed or resprouting will occur. Physical removal by hand-pulling smaller plants or grubbing out large plants should not be used in sensitive habitats. Open soil and remaining root stocks will result in rapid reinvasion or resprouting of honeysuckles and other exotics.

Bush honeysuckle stems can be cut at the base with brushcutters, chainsaws or hand tools. After cutting, a 20% solution of glyphosate should be applied to the cut stump either by spraying the stump with a low pressure hand-held sprayer or wiping the herbicide on the stump with a sponge applicator to prevent resprouting. Glyphosate is available under the tradenames Roundup and Rodeo, products manufactured by Monsanto. While the Roundup and Rodeo labels recommend a 50-100% concentration of herbicide for stump treatment, a 20% concentration of Roundup has proven effective. It is not known if this lesser concentration is effective for Rodeo also. Rodeo can be used in wetlands and over open water, but Roundup is only labelled for use in non-wetlands. Herbicide should be applied to the cut stump immediately after cutting for best results. Application in late summer, early fall, or the dormant season has proven effective. Some resprouting may occur with a follow up treatment being necessary. Glyphosate is non-selective so care should be taken to avoid contacting non-target plants. The wood of bush honeysuckles is very tough and easily dulls powertool blades.

RECOMMENDED PRACTICES ON BUFFER AND SEVERELY DISTURBED SITES

Methods given above for high-quality natural communities are also effective and preferred on buffer and disturbed sites. When an area with bush honeysuckle lacks sufficient fuel to carry a fire, herbicides may be necessary to obtain control.

In dry, upland areas, a foliar spray of 1% Roundup (glyphosate) will control seedlings. A 1-1/2% foliar spray of Roundup just after plant blooming in June will control mature shrubs. Application should occur from late June to just prior to leaf color changes in fall. The herbicide should be applied while backing away from treated areas so as not to walk through the wet herbicide.

In moist areas, a foliar spray of 1% Rodeo (glyphosate) with Ortho-X27 spreader, will control seedlings. Application should occur from late June to just prior to changes in leaf color in the fall. Foliar application of a 1-1/2% solution of Rodeo (2 oz. Rodeo/gallon clean water) will kill mature plants if all foliage is sprayed. This control method usually requires less labor but more herbicide.

In addition, Krenite controls bush honeysuckle when applied according to label instructions.

Any treatment should be rechecked in following years for reinvasion. Glyphosate is a nonselective herbicide and care should be taken to avoid contacting nontarget plants with herbicide. **Do not spray so heavily that herbicide drips off the target species.** By law, herbicides only may be applied according to label instructions and by licensed herbicide applicators or operators when working on public properties.

FAILED OR INEFFECTIVE PRACTICES

The herbicide Garlon does not control bush honeysuckle.

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