Bush Honeysuckle:

Identification, Control & Potential Spread

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Outline

- Identification
- Bush Honeysuckle Ecology and Impacts
- Control and Management

Bush Honeysuckle

- Lonicera spp. - multiple species
  - Differ mostly in leaf size and shape, flower and fruit color, and flowering time
- Most abundant – Amur honeysuckle (L. maackii)
- Also found in N. Alabama – L. fragrantissima

Why are we concerned?

- Can invade mature forest
- Long lasting impacts
  - Understory
  - Tree growth and establishment

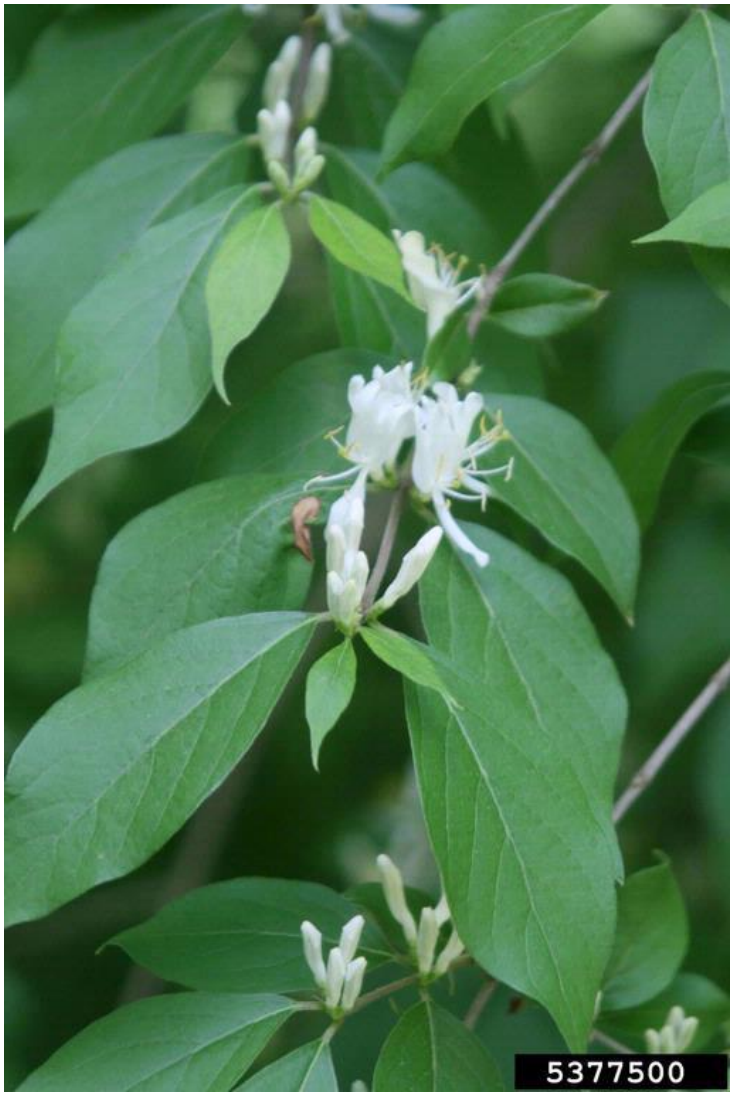
About Bush Honeysuckle

- Asian /Eurasian origin
- Introduced as ornamental and wildlife species
- Caprifoliaceae family (goat-leaf)
- Bird dispersed seeds

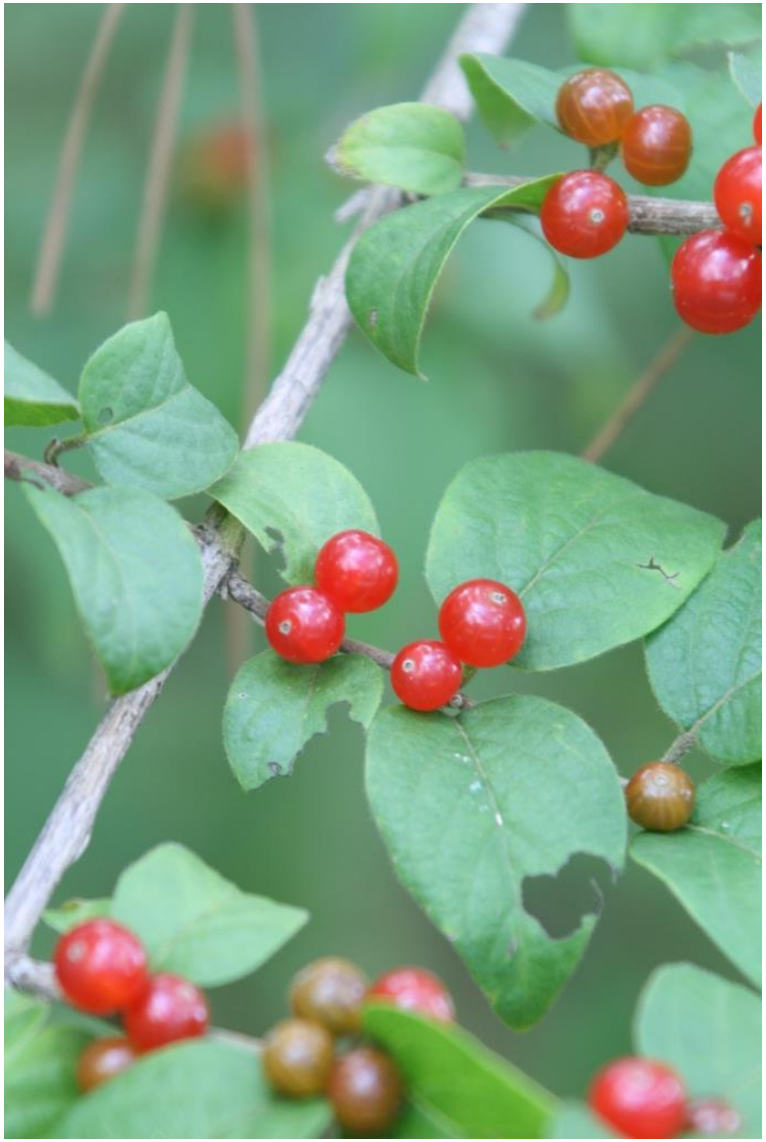
Identification – Key Characteristics

- Opposite, entire leaves
- Tardily deciduous (holds leaves longer than most other plants)
- Showy fragrant flowers
- Bright red berries (Amur)
  - Often in pairs or fours
- Arching nature to stems
- Multi-stemmed (usually)
- Light tan, stringy bark
- Hollow pith

Flowers



Fruit



Leaves

Bark

Drive-by identification of honeysuckle

Ecology and Impacts

Habitat

- Dry-moist forests
- Open areas
- Edges, disturbed habitats
  - Responds well to disturbance
- Sun and shade tolerant
- Drought tolerant – doesn't like 'feet wet'

** Does note require disturbance to invade
  - High quality forests at risk

Honeysuckle invasion following wind damage


13/04/2006
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Honeysuckle growing in shaded understory

Impacts

- Reduce productivity of established overstory trees by up to 50%
- Eliminate tree seedling establishment
- Outcompetes native shrubs
- Shades understory plants – drastically reducing diversity

Impacts

- Widely considered one of the most damaging invasive plant species in the Mid-South and Midwestern United States
  - Central hardwoods region

Management

Bush Honeysuckle Control

- Expect to need at least 3-5 years to eradicate a well-established infestation
  - Re-invasion
  - < 100% Control
  - Seeds and Seedlings

Mechanical control

- Shallow-root system allows for seedlings to be hand-pulled easily
- Prescribed fire will kill seedlings and top-kill older plants
  - Reduces infestation level but will not likely eliminate
- Prescribed grazing (goats) can reduce infestation level but will not eliminate
  - Chance for off-target damage great

Chemical control

- Effective for both small and large infestations
- Multiple herbicides/application techniques allow for a wide treatment window
  - Anytime of year except for spring

Chemical control

Typical herbicides used

- Glyphosate (Roundup, Rodeo, Glypro, etc.)
- Triclopyr (Garlon, Tahoe, Crossroads, Ortho Brush-B-Gone, etc.)

Typical treatments used

- Cut stump treatment
  - Early summer through winter
- Basal bark
  - Late summer through winter
- Foliar application
  - Late spring through early fall
  - Dependent upon condition of foliage

Cut Stump Treatment

- Used on any plant, regardless of size
- Cutting down the woody plant and treating cut surface with a concentrated, systemic herbicide to prevent sprouting
- Use an herbicide dye to track progress and reduce skips


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Basal Bark Treatments

- Apply herbicide directly to the stem of the woody plant
  - Make sure to cover all sides
  - Ground – 12” high
- Need an oil-based herbicide
- Uses more herbicide than cut stump but doesn’t require cutting down plant

Basal Bark Limitations

- Heavy snow cover limits this method
- Silt-covered stems (lowlands prone to flooding) limits this method

Cut Stump and Basal Bark

- Effective winter (until plants start getting active in late winter)
  - Late fall most effective time
- Cut stump can be used on any size plant
- Basal bark needs a target with thin, smooth bark to work best
  - Less effective on larger specimens
- Cut stump
  - Glyphosate at 50% in water (when temperature are above freezing) (preferred for bush honeysuckle)
  - Triclopyr at 17-25% in water (amine formulation) or oil (ester formulation)

Cut Stump and Basal Bark

- Basal Bark
  - Triclopyr (ester formulation like Garlon 4) at 17-20% in oil
    - Commercially available basal oil or seed or crop oil
    - Kerosene or Diesel no longer recommended

Ready to use formulation

Foliar application

- Directly applying herbicide to foliage
- Need good coverage (try to treat all leaves)
- Do not spray too much (herbicide shouldn't be dripping off of plants)
- Spring through fall – Post flowering n spring through leaves yellowing in fall


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Foliar treatments

- Foliage needs to be healthy and actively growing to take up herbicide
  - Full foliage (not a lot of leaf loss)
  - Green foliage (little to no fall yellowing)
  - Temperature conducive to photosynthesis (above 50^0)
- Glyphosate-based products work well (typical rate for glyphosate – 2-3% with surfactant)

This foliage is ‘past it’ and not suitable for foliar application (note thinning and yellowing)

Fall/winter control techniques

- Effective time to control bush honeysuckle
  - Cut stump
  - Basal bark
- For cold winter – water-based herbicides can freeze and not be taken up by plant (use oil-based herbicide instead)
- For winter, do not store excess herbicide in spray equipment in unheated area

Mixing Herbicides

- Read and follow all label information
- Use PPE (gloves, eye protection, long sleeves, etc.) as specified in label

1-Gallon Sprayer

- 2% - 2.5 oz
- 3% - 4 oz (½ cup)
- 20% - 26 oz (1 pint and a cup)

3-Gallon Sprayer

- 2% - 8 oz (1 cup)
- 3% - 12 oz (1 and ½ cup)
- 20% - 77 oz (2 quarts and a pint)

http://mipncontroldatabase.wisc.edu/

Invasive Plant Control Database

MIPN.org
Midwest Invasive Plant Network

Welcome to the Invasive Plant Control Database

This website contains information on how to control many invasive plants common to the Midwestern United States. Information was collected from both scientific literature and expert opinions and summarized by the Midwest Invasive Plant Network (MIPN), in partnership with the Mark Renz lab from the University of Wisconsin-Madison. Methods that are uncommon, do not provide sufficient control, or lack information for determining effectiveness on target species are omitted. For each species, information was reviewed by four individuals, including two identified as experts on control of that species. Information is searchable by several fields to improve the user's ability to find pertinent information. To view the search feature, you must first select an invasive plant. Additionally, users have the option of entering personal experiences with managing specific species (see "add new case studies" under search results). These case studies will be visible to all users once verified by MIPN staff.

We make no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability, suitability, or availability with respect to the information or products on the website. Any reliance you place on such information is therefore strictly at your own risk. References to pesticide products on this website are for your convenience and are not an endorsement or guarantee of one product over another.

Step 1: Select Plant

Step 1: Select a species by choosing a common or scientific name from the list, or by typing a name in the search box.

(•) Free Form Search ( ) Common Name List ( ) Scientific Name List

[ ] [Select Plant]

Heavy Infestations

- Extremely dense infestations provide complications
  - Costs (very expensive and time-consuming to treat using conventional methods
  - Access

Heavy Infestations

- Mist blow – glyphosate in the fall
  - Need moderate wind in the right direction
  - Off-target impacts likely so only use in dense, near monocultures
- Bullhog/Forestry mower
  - Sets back the stand
  - Treat sprouts the following year

**Both of these methods are 'advanced' techniques, consider hiring experienced contractor

Potential Spread

- Primarily bird-dispersed seeds
- Planted intentionally in the past
- Localized spread follows disturbance
  - Timber harvest
  - TSI work
  - Wind/ice damage
- Parks, forest edges, fencerows, ROWs

Potential Spread

- Monitoring likely introduction points
- Rapid response to new invasion
- Short seed life allows for eradication if caught early before widespread

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