



# WNY PRISM

Partnering to Protect Western New York from Invasive Species

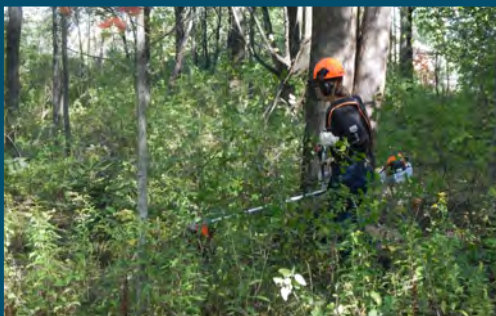
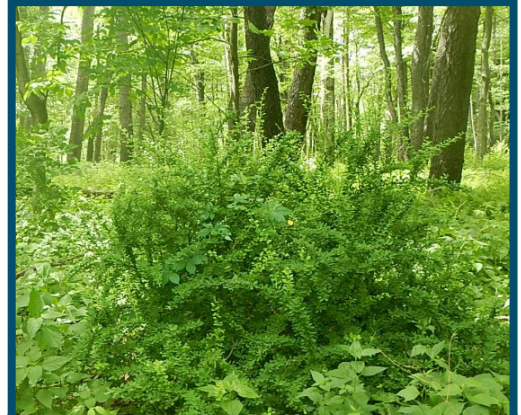
## Best Management Practices: Invasive Shrubs

Invasive shrubs include common species such as bush honeysuckle (*Lonicera* spp.), Japanese and common barberry (*Berberis thunbergii* and *B. vulgaris*), privet (*Ligustrum* spp.), common buckthorn (*Rhamnus cathartica*), glossy buckthorn (*Frangula alnus*), and multi-flora rose (*Rosa multiflora*) among others. While the effectiveness of different management methods varies based on the species, by in large the Best Management Practices (BMP) are similar.

Invasive shrubs grow rapidly and are prolific seed producers. They grow into dense thickets, displacing native understory plants and limiting tree regeneration. Invasive shrubs have been shown to significantly decrease insect diversity and biomass, alter soil chemistry and nutrient filtration, and have additional negative impacts on native bird species including malnutrition. Seed is spread by birds, making landscape level management of well-established species difficult.

**Integrated Pest Management (IPM)** is an adaptive approach to invasive species management that involves the selection of multiple control methods and appropriate timing to match the management needs of each specific site and species. The goal is to maximize effective control and to minimize any potential negative impacts.

Management efforts should begin with an invasive species survey and site assessment. This allows for the development of a management plan and selection of appropriate removal methods. Management for most well-established species and/or infestations will require dedication over a number of years, often 3-5. Once initial control is achieved, restoration and continued monitoring and management will likely be required to maintain success.



## Best Management Practices: Invasive Shrubs

### Management

#### Manual

Manual removal is recommended for small individuals. Excessive manual removal can cause significant damage to the soil and soil plant communities. It can also lead to erosion and create disturbed ground more inviting to invasive species.

#### Mechanical

Mechanical methods such as cutting or mowing can reduce seed production and improve effectiveness of other treatments. However, mechanical methods alone will not lead to long-term management success. Shrubs will continue to resprout, often creating very dense infestations that become more difficult to manage.

#### Chemical

Herbicides, such as glyphosate and some broadleaf specific herbicides, are very effective as foliar applications. If shrubs are cut/mowed ahead of herbicide treatment, foliar applications can take place after shrubs leaf-out once again, reducing likelihood of overspray and drift.

Oil-based herbicides, such as Pathfinder II or Garlon 4, may be used as a cut-stump treatment or as a basal bark treatment. Oil-based herbicides can be used year round.

#### Spread Prevention

Care should be taken to limit seed dispersal by conducting management when shrubs do not have berries and avoiding movement of shrubs off-site.

#### Disposal

Plant material should be left on-site, if possible. Shrubs can be piled to facilitate treatment of resprouts, or can be left where they fall if future access isn't a concern. Brush piles may be burned, if allowed.

#### Restoration

Restoration efforts should begin after the initial infestation has been managed and may include planting of native understory species and management of overstory trees.

WNY PRISM developed native plant restoration seed mixes. Find them in the Restoration Seed Mixes BMP: <https://www.wnyprism.org/management/best-management-practices/>.

USE PESTICIDES WISELY: Always read the entire pesticide label carefully and follow all instructions. Pesticide regulations can vary widely between regions; please contact local authorities for additional pesticide use requirements, restrictions or recommendations. Mention of pesticide products by WNY PRISM does not constitute endorsement of any material.



**Photos Front:** Top- Japanese barberry; Middle- common buckthorn berries and leaves; Bottom (left to right)- brushcutter, weed wrench, cut-stump herbicide treatment.  
**Photos Back:** Tiftt Nature Preserve restoration; Top- common buckthorn infestation pre-treatment; Bottom- mid-treatment, manual cut-stump treatments moving into the infestation.

### Additional Resources

University of New Hampshire Extension  
[https://extension.unh.edu/sites/default/files/migrated\\_unmanaged\\_files/Resource000988\\_Rep1135.pdf](https://extension.unh.edu/sites/default/files/migrated_unmanaged_files/Resource000988_Rep1135.pdf)



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WESTERN NEW YORK



Department of  
**Environmental  
Conservation**

*Funding for WNY PRISM is provided by the Environmental Protection Fund through a contract with the NYS Department of Environmental Conservation. WNY PRISM is hosted by the Great Lakes Center and is a sponsored program of the Research Foundation for SUNY Buffalo State University.*