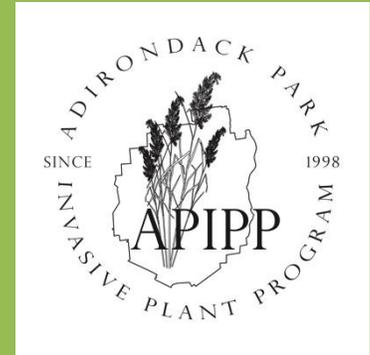


Invasive Plants:

A Landowner's Guide to Managing Invasive Plants



Top Invaders:

Japanese Knotweed	Invades forest edges, stream banks and open or disturbed areas
Purple Loosestrife	Invades wetlands, wet fields and roadsides
Garlic Mustard	Invades forest understories and roadsides
Yellow Iris	Invades wet areas and shorelines
Common Reed	Invades wet areas and roadsides



Photo by Paul Rischmiller

Management Strategies

Invasive plants are non-native species that rapidly reproduce, displacing native plants and causing ecological harm. Having invasive plants on your property can be overwhelming, but it isn't the end of the world. There are strategies to remove them and restore desirable vegetation.

Pulling – effective for some terrestrial invasive plants and recommended for small infestations.

Digging up – effective for some terrestrial invasive plants and recommended for small infestations.

Herbicide – effective for some terrestrial invasive plants and recommended for larger infestations.

Removing invasive plants can be a long and difficult process. To set your project up for success, management is recommended for at least three years to reduce the seed bank. With proper management and continued removal of new plants, you can take back your property. Species-specific management information is listed in this guide.

Thank you!

Thank you for your interest in managing invasive plants on your property and your efforts to keep Adirondack woods and waters free of invasive plants!



© APHIS/USDA/APHIS/USDA

Strategies for Plant Removal

Japanese Knotweed

Mowing or cutting is not advised, as it can cause rapid regrowth due to fragmentation.

Small infestations (15 plants or fewer) can be pulled or dug out by the roots mid July to August, prior to seeding. Bag and dispose of plants in a landfill.

Large infestations are best treated with a stem injection or glyphosate-based foliar herbicide spray. Spraying should occur between early August to early October when plants are flowering and prior to the first hard frost. Always read product labels. **Be patient post treatment.** Herbicide takes time to take effect; immediate plant death will not be seen until at least 2 – 3 weeks after treatment.

Garlic Mustard

Small and large infestations are easily pulled from sites. Pulling should occur May to June prior to seeding to minimize seed spread. Tamp down soils after pulling to minimize disturbance.

Plants should be bagged and left in the sun to liquefy for 2 – 3 weeks. Once the material is liquefied, the bags can be disposed of in a sanitary landfill. **DO NOT** compost pulled plants.

Be sure to continuously monitor the site in the fall, pulling any new plants. Continue to remove plants annually until the seed bank is depleted.

Purple Loosestrife

Small infestations (25 plants or fewer) can be pulled or dug out in July prior to seeding to minimize seed spread. Excavation of sites can also be effective. Be sure to dig out all roots, and bag and dispose of plant material in a sanitary landfill.

Large infestations can be treated with glyphosate-based herbicide. Flower heads should be removed prior to spraying, bagged and disposed of in a sanitary landfill. Biological control methods are also effective in special cases. For more information on whether your plants are eligible for bio control, call APIPP 518-576-2082.

Common Reed

Mowing or cutting is not advised, as it can cause rapid regrowth due to fragmentation.

Small infestations (15 plants or fewer) can be excavated from the site. Be sure to dig out all roots, bag and dispose of plants in a sanitary landfill. Digging should be done in July prior to seeding to prevent additional dispersal.

Large infestations are best treated with a stem injection or glyphosate-based foliar herbicide spray. Spraying should be done in mid August through September when the seed tassel is present. **DO NOT** use herbicide in wetlands. For stands located in wetlands, please call APIPP, 518-576-2082.

Yellow Iris

This plant must be removed with caution! Skin irritation can occur when in contact with plant roots. Use gloves.

Small infestations (15 plants or fewer) can be managed by clipping flower heads and pulling or digging out plants and roots. Plants in standing water can be cut below the water line. Place all plant material in garbage bags and place in a sanitary landfill.

Large infestations are best treated with a stem injection. For large infestations, please call APIPP, 518-576-2082.

Tips for using herbicide:

Safety first! Be sure to wear personal protective equipment such as gloves, goggles, long sleeves and pants when using herbicide.

Not near water! Do not use herbicide near water or within 30 minutes of hard rainfall.

Read the label! Glyphosate-based herbicide requires mixing with water. Check product labels to get the correct ration for optimal performance.

Foliar spray: Foliar spray is used on the leaves of the plant. Be sure to spray the leaves evenly and not over douse the plants.

Stem injections: Stem injections are used primarily on plants in wet areas and Japanese knotweed. *See page 3 for more information on how you can purchase an injection gun.*

Things You Should Know About Herbicide:

- **Label information is the law.** Be sure to read product labels. They will guide you as to how to mix and apply herbicide on plants.
- **You can only apply herbicide on your own property.** It's against the law for you to apply herbicide on someone else's property, unless you are a certified applicator.
- **DO NOT use herbicides near water.** Special permits and herbicide are needed for application near water. Contact the Adirondack Park Invasive Plant Program, 518-576-2082.
- **Research your options.** Herbicides are recommended for stands greater than 50 plants for purple loosestrife, garlic mustard and yellow iris and for stands greater than 25 plants for Japanese knotweed and common reed. Stands smaller than that can be managed using pulling or digging methods or excavation.

How to Apply:

Foliar Spray

When you have a large, dense infestation, it is more efficient and uses less chemical to apply herbicide using a backpack or mist sprayer. This technique is the most likely to affect non-target plants when spray drifts, so apply spray when there is no wind. Foliar spraying is done when plants are in flower or fruit.



Stem Injection

Stem injection is best used for Japanese knotweed and yellow iris. Roundup Pro® cannot be used if stands are near water (see side bar).

Stem injection guns can be purchased online through www.jkinjectiontools.com. The tool costs roughly \$232.98, however it is the most effective treatment option for dense stands of Japanese knotweed.

To learn more about how communities can effectively fight knotweed visit the Regional Inlet Invasive Plant Program website: www.noknotweed.org.



Product Used:

Glyphosate-based products are recommended if you decide to use herbicide to treat invasive species on your property. This is a non-selective herbicide that is NOT to be used in wet areas. Use herbicide with caution and follow the recommended product use on the product label.

Roundup Pro® is recommended for use by landowners to treat invasive plants. This product can be purchased at most hardware stores or online. The surfactant in this herbicide is highly toxic to amphibians and should not be used near water.



Herbicide Application Guide:



Purple Loosestrife

Cut and dispose of flower heads before treating. Apply a foliar spray of 1 - 2 % glyphosate solution in mid July to early August during peak bloom. *If your stand is located in a wet area, call APIPP. Remember not to use herbicides in wet areas or within 30 minutes of a rain event.*



Garlic Mustard

Apply a foliar spray of 1 – 3% glyphosate solution, which will provide greater than 95% control of infestations. Treat from September to October. Most native species are dormant during this time and non-target impacts by spraying are less likely.



Japanese Knotweed

Apply a foliar spray of 3 – 8% glyphosate solution in August when the plant is in bloom. Repeat applications will be necessary the following year.

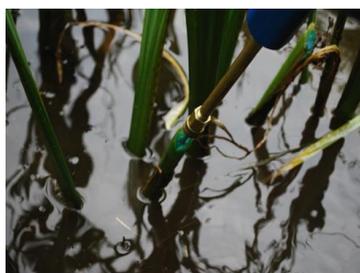
Japanese knotweed is also a good candidate for stem injection. Stem injection can occur from August through September when the plant is in bloom. This method reduces herbicide effects on native plants. *For injector gun purchase information please see page 3.*



Common Reed

Apply a foliar spray of 2% glyphosate solution on dense stands from mid August through September when the seed tassel is present.

After initial treatment, return to the site early the next season to remove dead stalks, encouraging growth of suppressed vegetation. *Common reed often occurs in wet areas. Call APIPP if your infestation is near water.*



Yellow Iris

Digging up plants is the best method for removal of this plant; however, *if your yellow iris infestation is larger than 25 plants, call APIPP, 518-576-2082.*

For more information contact: Brendan Quirion (director), Zachary Simek (terrestrial), Erin Vennie-Vollrath (aquatic)

PO Box 65 Keene Valley, NY 12943; 518-576-2082

<http://www.adkinvasives.com>; <http://adk-invasives.blogspot.com/>