



## INTEGRATED PEST MANAGEMENT PRESCRIPTION

# Yellow flag iris

(*Iris pseudacorus*)

### Description:

Yellow flag iris (*Iris pseudacorus*) is an emergent aquatic perennial, usually found along wetland areas such as lakes, rivers, streams or at the edge of ponds. It has showy yellow flowers, with three downward facing sepals, often with brown or purple veins at the base, and three smaller, upward pointing petals.

Each stem may have multiple flower heads. It has broad, flat, pointed leaves that overlap at the base, leaves often remain green year round in mild winter climates.

Yellow flag iris has thick rhizomes (root system) that form dense mats. It spreads both by rhizomes and by seed. After the plant blooms, seed pods grow in clusters at the base of the flower. The pods are about 1/4 inch in diameter and have the ability to float.

### Impacts:

The dense mats this iris forms can crowd out native vegetation, trap sediment, inhibit flow in streams and rivers, and jeopardize habitat for fish and wildlife. In addition, the sap produced by this plant is poisonous to humans and livestock.



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Photo by Rick Johnson, Thurston County Noxious Weed Control

### Control Options:

Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The goal of Thurston County's pesticide use policy is to minimize the use of pesticides by utilizing and providing information about the most effective control options that are available and practical.

#### ► Cultural / Habitat

Do not plant yellow flag iris in your landscape. If you already have yellow flag iris, please consider removing it and re-planting the area with native vegetation.

#### ► Manual / Mechanical

Underwater cutting has demonstrated approximately 49% control. Harvesting mature seed pods will greatly help reduce the spread of this species from infested shorelines and wetlands. However, this technique will have no impact on the plant or spread from the rhizomes that remain.

Small infestations of yellow flag iris may be pulled or dug out, since the sap is poisonous and may cause a skin reaction, hand protection should be worn. Care should be taken to remove all rhizomes, re-growth will occur from missed rhizomes.

Cutting and covering the plants with landscape fabric or durable tarps has shown to be moderately successful. However, you must cover all of the plants and the coverings need to be maintained for several years. This is only practical if infestations are new and cover small areas. Covering large areas of shorelines would require permits from several jurisdictions.

#### ► Biological

There are currently no biological controls for Yellow flag iris.

#### ► Chemical

Herbicide spraying within 50 feet of a water body requires the use of an herbicide formulated for aquatic settings. Aquatic herbicides are restricted for use in Washington State to licensed applicators only.

**Glyphosate** is the active ingredient in a few aquatic herbicides (like Aquamaster®, Rodeo®, etc) that are effective for the control of this invasive aquatic plant. Aquatic herbicides that have glyphosate as the active ingredient are considered "low in hazard" by Thurston County's pesticide review process. Spot applications or stem injections are recommended for yellow flag iris control.



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Spot application: An herbicide is applied directly onto the iris plants and not on the surrounding plants. Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping. Applying a glyphosate product at a 2.5-5% solution in the fall can achieve up to 93% control.

Hollow stem injection: The herbicide is injected directly into the plant stem. The glyphosate-containing Aquamaster® has a labeled use allowing it to be hollow stem injected. (Thurston County is unaware of any other glyphosate products with this labeled use). Cut flower stems with clippers 8 to 9 inches above the root crown, then push a cavity needle into the soft pithy center of the stem. This creates a hollow area in the center that will hold the herbicide. Slowly inject 0.5 mL/stem of this product into the hollow while slowly withdrawing the cavity needle. This stem injection technique can be useful in minimizing injury to neighboring plants when compared to spraying techniques.



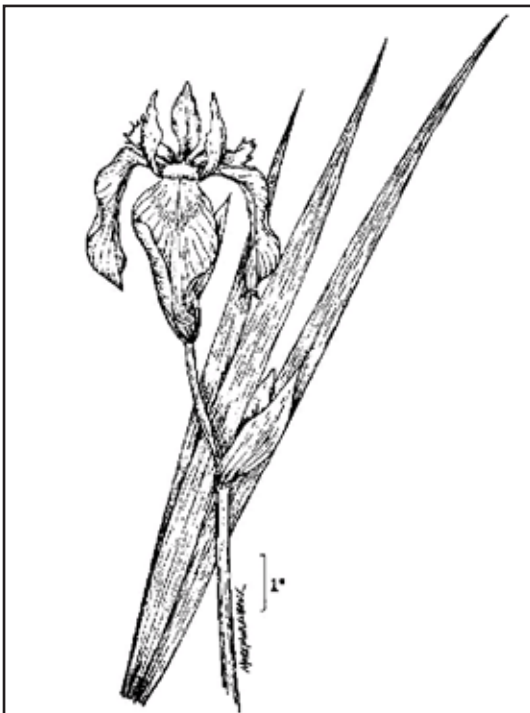
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Note: Based on the maximum annual use rate of glyphosate the combined total for all treatments must not exceed 8 quarts of this product per acre. At 0.5 mL per stem 8 quarts should treat approximately 15,000 stems.

**Timing:**

Apply to actively growing foliage during the summer or fall before a killing frost. In general, fall treatments seem to be somewhat more effective than spring or summer. Bagging and disposing of mature seed heads is essential to reduce further spread of the species even with treatment.

Products containing the active ingredient **imazapyr** (Habitat®, NuFarm Polaris®, etc), effectively control iris and are considered “moderate in hazard” by Thurston County’s review process for the potential for chemical mobility and persistence.



USDA-NRCS PLANTS Database / USDA NRCS. Wetland flora: Field office illustrated guide to plant species. USDA Natural Resources Conservation Service.

Applications of aquatic imazapyr products require a licensed applicator. Spot applications with imazapyr products are effective when the herbicide is sprayed directly onto the plants (avoid spraying other desirable plants). Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping. Up to 100% control can be achieved if applied during fall with 1-1.5% solution.

Do not use on areas where roots of desirable vegetation may extend and be exposed to potential injury.

**READ AND FOLLOW ALL PESTICIDE LABEL DIRECTIONS AND RESTRICTIONS.** Use of brand names does not imply endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually and product names and formulations may vary from year to year.

**REFERENCES:**

Washington State Noxious Weed Control Board: <http://www.nwcb.wa.gov/index.htm>

King County Department of Natural Resources and Parks Water and Land Resources Division— Noxious Weed Control Program. Yellow flag iris Best Management Practices January 2007

Washington State University Spokane County Extension Master Gardener Program—Yellow Flag Iris

The Nature Conservancy, Element Stewardship Abstract for Yellow flag iris

Aquatic Weeds Management Fund Final Report Grant # G0500123 WSDA 6/30/08



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