

# Yellowflag Iris

(*Iris pseudacorus*)

## Prevention & Management



### About Yellowflag Iris:

Yellowflag iris is an invasive, ornamental, aquatic perennial, growing up to 5 ft. tall from thick shoreline rhizomes. Basal leaves are flat, broad, sword-shaped and arranged in a fan pattern. Flowers are pale to dark yellow with 3 sepals and 3 longer petals, with brownish, purple, mottled markings. Seed pods are long, three-chambered, and contain up to 47 large, reddish brown, buoyant seeds. Plants spread by rhizomes, seeds, and fragmentation. Up to several hundred flowering plants may be connected by rhizomes. Viable seeds can float for over a year and fragments as small as 1 inch can form new plants.

### Why control Yellowflag Iris?

Yellowflag iris rapidly expands via rhizomes, forming dense monotypic stands that replace native aquatic plants. Root systems form a dense mat that compacts soil, alters shoreline morphology, and can obstruct waterways. Large infestations destroy native fish and waterfowl habitat. The sap can irritate the skin and all parts of the plant are toxic to livestock.



### Before you begin:

Create a plan for restoration before removing weeds or disturbing the soil. Yellowflag iris seeds germinate easily on bare soil, but have a more difficult time in established vegetation. If enough desirable vegetation is not present to replace the iris, newly exposed soil can be sown with native or non-invasive perennial grasses to promote competition.

### Tools for Yellowflag Iris removal:

- Yellowflag iris sap is toxic; always wear gloves during manual removal.
- Shovel, hoe, spade, pruning shears
- Plastic bag, bucket, tarp
- Herbicide & proper protective equipment

### Yellowflag Iris vs. Cattails:

When not in flower, the rigid, sharply-pointed, and fanning arrangement of the basal leaves of yellowflag iris can help to differentiate it from the narrow, bending leaves of cattails, which have dull points and margins. In addition to the native broadleaf cattail (*Typha latifolia*), yellowflag iris occurs in the same habitat as the invasive narrowleaf cattail (*Typha x glauca*). Proper identification of which species you are trying to control will help you choose the best management practices.

### Timing

Yellowflag iris control is typically most effective when plants are actively growing, but prior to seed maturity and release. The best timing will depend on the control options chosen.

### Manual & Mechanical Control

Yellowflag iris rhizomes can live over three months without water. If immediate disposal is not possible, pile rhizomes on a tarp or other impervious surface to prevent reestablishment. *Digging/Pulling:* Seedlings and young plants can be easily pulled from wet, loose soils. Manual removal of mature rhizomes is effective, but can be labor intensive. Rhizomes become more brittle with age, and all resulting fragments will need to be collected and disposed of. *Cutting:* Cutting or mowing may provide adequate control if repeated every year for several years.

Removing flowers and/or fruit will prevent seed production.

*Mechanical:* Mechanical means can be used to remove rhizome masses or cut away shoreline plants.

### **Cultural Control**

*Nutrient Management:* Yellowflag iris thrives in high nutrient environments. Responsible shoreline management practices that reduce nutrient inputs to waterbodies may help prevent aquatic weed establishment.

*Sheet Mulching:* Small areas of seedlings may be controlled with a thick layer of sheet mulch in some cases.

*Solarization:* Securely covering with layers of durable black tarp in late winter to early spring, or after removing top growth, for 2 to 3 growing seasons is effective.

### **Biological Control**

Although fed upon by several invertebrates and fungi, there are currently no biological control agents approved for use in the US. All parts of the plant are toxic to livestock.

### **Chemical Control**

Aquatic herbicide applications require permits from the WA State Department of Ecology and must be performed by a licensed applicator. Additional permit(s) from WSDA may be required for aquatic plant removal or hydrologic alteration.

*By law, herbicides must be used in strict accordance with label instructions.* Please contact the San Juan County Noxious Weed Control Program for more info.

*Timing:* Fall treatments are typically more effective, but plants can be treated any time they are actively growing. Avoid treating old or

droughtstressed leaves. Herbicide treatment may be enhanced when yellowflag iris is cut in spring or summer and then spot treated in fall. Handheld application devices can reduce off-target damage and water contact.

*Spot Spray:* 2,4-D is effective for terrestrial applications. Aquatic-approved formulations of glyphosate or imazapyr are effective for wet or aquatic sites. Addition of an aquatic-approved nonionic surfactant may improve control. Adding a dye marker to the mixture can help reduce the amount of herbicide used. Glyphosate and imazapyr are non-selective, and overspray will damage any surrounding desirable vegetation.

*Cut Stem:* Immediately apply glyphosate or imazapyr directly to cut stems and leaf blades.

*Wicking:* Apply glyphosate and/or imazapyr to both sides of leaves with an herbicide wicking device. May reduce risks of water contact and damage to off-target species.

### **Follow-up**

Monitor and eradicate new populations while keeping established populations from spreading into non-infested or recently controlled areas. Always purchase weed-free mulch, soil, and hay.

### **Debris Removal:**

Rhizomes should be piled on a tarp or other impervious surface until they can be disposed of, to prevent rooting. Cut flowers may be left in place, but seed pods must be bagged for disposal. Do not compost any part of plants.

### **Site Restoration:**

Yellowflag iris removal from shorelines can often result in extensive bare ground, increasing risks of erosion, sediment runoff, and weed reestablishment. Bare shorelines can be protected

with coir rolls and/or covers of sheet mulch or burlap until they can be replanted or seeded with native riparian vegetation. Large woody debris installed in the water can also help protect shorelines from wave damage.

Establish dense, competitive native or other non-invasive vegetation. Immediately re-seed bare ground areas with native or non-invasive perennial grasses or other native vegetation after removing dense iris stands to reduce erosion and subsequent weed establishment.

### **Substitutes**

If you enjoy yellowflag iris, please consider instead planting one of the many Iris species native to the Pacific Coast, or another noninvasive species. Siberian iris (*Iris sibirica*) is an ideal, yellow flowered substitute. Toughleaf iris (*Iris tenax sp. tenax*), a WA state native, Laevigata iris (*Iris laevigata*), and Japanese iris (*Iris ensata*) are also suitable yellowflag iris replacements for open shoreline plantings.

If you would like weed identification, site specific control recommendations or additional noxious weed information, contact:

### **[San Juan County Noxious Weed Control Department](#)**

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