



*A small patch of Phragmites growing in a drainage ditch. Its underground rhizomes and wind-dispersed seeds make it especially difficult to control. Widely considered Ontario's most destructive invasive wetland plant, early detection and rapid response are critical for effective management.*



*Naturalized areas and wetlands are particularly vulnerable to the rapid spread of invasive species. Regular monitoring and species assessments are essential for early detection and effective management.*

# Managing Invasive Species on Ontario Golf Courses

## A PRACTICAL GUIDE FOR SUPERINTENDENTS

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Golf courses are first and foremost places to enjoy the greatest game, but they also serve an important role as green spaces, weaving through woodlots, wetlands, and diverse natural landscapes. These green spaces are what define many of the courses and provide a varied landscape to play the game on. But with that beauty comes a constant challenge: the persistent pressure of invasive plant species. From

creeping aquatic weeds in ponds to aggressive woody plants in out-of-play areas and fast-spreading ornamentals in garden beds, these unwanted guests threaten the ecological balance, aesthetic value, and long-term maintenance costs on golf courses.

This guide offers a broad overview of the most common invasive plants affecting golf courses in Ontario and provides practical strategies for identification, control, and prevention. Whether you're just beginning to tackle a few patches or facing widespread infestations, the key is awareness, early action, and the right resources.

### Common Invaders to Watch

On golf courses, invasive plants often establish in naturalized zones, water features, and landscaped areas. Here are some of the most common species:

#### Aquatic Zones, Ponds, and Wet Areas

##### Eurasian Watermilfoil (*Myriophyllum spicatum*):

Forms dense, tangled mats in ponds that interfere with aesthetics and clog irrigation intakes. It breaks into fragments easily, and from those fragments, entirely new plants can grow. If fragments attach to equipment, the plant can spread to new areas, making mechanical removal difficult without further spreading it.

##### Phragmites (*Phragmites australis*):

This towering reed has become one of Ontario's most destructive wetland and roadside invaders. It forms impenetrable stands that displace wildlife habitat, disrupt drainage patterns, and dead standing stalks can pose a fire hazard. Small patches can spread aggressively via underground rhizomes and wind-blown seeds.

#### Woodlots, Buffers & Out-of-Play Areas

##### Common and Glossy Buckthorn (*Rhamnus cathartica* and *Rhamnus frangula*)

Spreads aggressively along forest edges, leaf's out early, and shades out native understory plants. It creates dense thickets

that degrade woodland health. Birds eat the berries on female trees and cause further spread of the species.

##### Non-Native Honeysuckles (*Lonicera* spp.):

Forms dense shrub layers that shade out native plants. Early leaf-out and rapid growth allow it to dominate woodland edges.

#### Ornamental and Garden Beds

##### Goutweed (*Aegopodium podagraria*):

Spreads underground by rhizomes, making it very hard to eliminate. Frequently escapes gardens and invades surrounding natural areas.

##### Periwinkle (*Vinca minor*):

A ground cover that spreads into woodlands, spreading across forest floors and preventing native plant regeneration.

##### Miscanthus (*Miscanthus sinensis*):

An ornamental grass that escapes into roughs and drainage areas, forming dense clumps that block sightlines, out compete native plants, and creates shelter for pests.



*Common Buckthorn forming dense thickets in the understory of a wooded area. This invasive species spreads easily and out competes native plants for sunlight and nutrients.*

## WHERE DID THEY COME FROM AND WHY ARE THEY SUCCESSFUL?

Non-native plants are plants introduced to new areas outside of their original geographic region and have been introduced to Canada and Ontario for hundreds of years to support agriculture and other industries, as well as garden ornamentals. However, some introduced plants have adapted extremely well to their new environment and have characteristics that allow them to be successful in their new range. Due to their characteristics, and the lack of native predators to keep populations in check, invasive plant species can quickly take over an area, out compete other vegetation, impact infrastructure, and even threaten human health (e.g., the sap from giant hogweed and wild parsnip can cause burns on skin if exposed to sunlight).

## WHY MANAGEMENT IS IMPORTANT

Once an invasive plant is introduced, because other species have not adapted along side it, populations can often grow rapidly and take over areas. Early detection and rapid management of invasive species is key to reduce the cost of resources spent to manage the species in the future.

### Where They Show Up and Why

Invasive plants thrive where disturbance, moisture, and a lack of competition give them the advantage. Golf courses offer several key invasion points:

#### Pond Edges and Drainage Ditches:

Nutrient-rich, slow-moving water with minimal competition provides perfect conditions for aquatic weeds to establish and spread.

#### Woodlot Margins and Out-of-Play Areas:

Open canopy gaps, soil disturbance, and edge effects make these areas common spots for buckthorn, honeysuckle, and similar invaders.

#### Naturalized Buffers and Meadows:

Without regular monitoring, seed-spreading invasives can sneak into native plant zones, especially along the outer edges.

#### Ornamental Beds:

Plantings like goutweed, periwinkle, and Miscanthus slowly spread outward, out competing other ornamental plants and escaping beds all together, particularly when gardens are under-maintained.

#### Construction Zones:

Disturbed soils and imported materials create perfect landing zones for invasives if new plantings aren't established quickly. If you are working to remove an invasive species, especially on a slope, consider replanting or re-seeding with non-invasive seed mixes to prevent new invaders from establishing in exposed and disturbed soil.

## Control Strategies and Practical Approaches

### Monitoring & Early Detection

- Learn about common invasive species in your region.
- Conduct seasonal surveys in key zones.
- Map infestations for tracking and prioritization.
- Train staff to recognize key species using resources from the Ontario Invasive Plant Council (OIPC).
- Utilize Best Management Practice documents. Many species-specific ones are available through Ontario Invasive Plant Council (OIPC).

### Mechanical Control

- **Phragmites:** Use cut-to-drown techniques or mow before seed set.
- **Buckthorn/Honeysuckle:** Hand-pull seedlings or use cut-stump method for mature shrubs.
- **Goutweed/Periwinkle:** Manual removal and smothering techniques like sheet mulching can help over time.

### Chemical Control (Legal in Ontario under Exemptions)

Always read and follow the label. Keep records, follow all provincial regulations, and consult licensed professionals for sensitive areas.

- **Glyphosate:** Approved for use under invasive species exemption.
- **Triclopyr:** Effective for woody plants; requires licensed applicators.
- **Aquatic Herbicides:** Require special approvals and certified application.

### Prevention

- Replace invasive ornamentals with native and non-invasive alternatives.
- Maintain vegetated buffers near water features.
- Stabilize disturbed soils quickly and monitor for regrowth.

Invasive plant management isn't just about protecting turf or maintaining aesthetics, it's about good land stewardship and reducing the need for costly future management efforts. With so many golf courses nestled within Ontario's ecologically sensitive corridors, superintendents have a real opportunity to lead the charge in invasive species prevention and control. The keys to success are early detection and rapid management of invasive species. With the right partnerships, you can make a lasting impact. Whether you're fighting back phragmites or pulling periwinkle, it all starts with knowing what you're dealing with and taking that first step. ■

## Resources and Support in Ontario for Superintendents

Several organizations in Ontario offer guidance, resources, and sometimes even hands-on help:

### Ontario Invasive Plant Council (OIPC):

[www.ontarioinvasiveplants.ca](http://www.ontarioinvasiveplants.ca) — "Grow Me Instead" guide and Best Management Practices.

### Invading Species Awareness Program (OFHA):

[www.invadingspecies.com](http://www.invadingspecies.com) — Reporting tools and ID resources.

### Invasive Species Centre (ISC):

[www.invasivespeciescentre.ca](http://www.invasivespeciescentre.ca) — Fact sheets, webinars, and species profiles.

**Regional Conservation Authorities:** TRCA, CVC, GRCA, and others can assist with invasive management.

**University of Guelph & OMAFRA:** Access to current research and regulatory info.

**Reporting and Mapping Tools:** EDDMapS Ontario, iNaturalist.ca, invasive species hotline.