SELECTED BEST MANAGEMENT PRACTICES

Look for the presence of invasive species

Check occurrence maps, scout the grounds, and familiarize yourself with existing populations along roadsides while mowing, at construction sites, and when moving fill.



Clean your gear upon leaving and before entering a new site



Brush, spray, or blow off gear to remove, dirt, seeds and roots hitchhiking on boots, machines, and tires so you can prevent costly new infestations. It is against Wisconsin state law to introduce, transport, or transfer NR 40 listed species without a permit.

Mow at the right time. Skip mowing some types of plants when possible.



Know which plants respond well to mowing and when to mow them. Alternatively, some plants cannot be controlled by mowing and readily spread by seeds or fragments falling out of machinery.

Cover and replant exposed dirt



Invasive plants thrive in freshly disturbed soil. Cover and re-seed with approved erosion control mixes. Use native plants when possible for lower maintenance.

Use the correct herbicide as part of integrated pest management



There is no one correct chemical to use on roadsides. Consult with experts on what to use for different applications. Using a variety of techniques such as prevention, mechanical control, herbicides, and replanting is the best recipe for long term success.

Related Resources

Wisconsin Invasive Species Calendar

fyi.extension.wisc.edu/wifdn/tools/

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Wild Parsnip *Pastinaca sativa*	◔	○	○	◔	◑	●	●	●	●	●	●	◑
Teasels *Dipsacus spp.*	◔	◔	◔	◔	◔	◑	◑	●	●	●	◑	◑
Purple Loosestrife *Lythrum salicaria*	○	○	○	◔	◑	◑	●	●	●	◔	○	○
Knotweeds *Fallopia spp.*	○	○	○	◔	◑	●	●	●	●	○	○	○
Non-native Phragmites *Phargmites australis*	◑	◑	◑	◑	◑	◑	●	●	●	●	◑	◑

Detectability

○ Undetectable ◑ Medium
◔ Low ● High

Life Stage

■ Dormant ■ Green vegetation present
■ Flowers present ■ Mature fruits or seeds present

Wisconsin First Detector Network (WIFDN)

fyi.extension.wisc.edu/wifdn

The UW-Madison WIFDN webpage has a collection of fact sheets, pesticide recommendations, and online tools like the Invasive Species Calendar and WISTIPP Invasive Species Map. Their goal is to make detection and control of invasive plants more accessible to practitioners.

Early Detection and Distribution Mapping System

eddmaps.org

EDDMapS is an easy way to see reported invasive species, and report them. In the Midwest, you can go mobile with EDDMapS using the Great Lakes Early Detection Network (GLEDN) app for Android and Apple.

Invasive Species Best Management Practices For Transportation and Utility Rights-of-Way

councilonforestry.wi.gov/Documents/InvasiveSpecies/ROW-Manual.pdf

The Wisconsin Council on Forestry commissioned manual describes, in detail, practices that managers can use to minimize the introduction and spread of invasive species in utility and transportation corridors.

Wisconsin Department of Natural Resources NR40 rule

dnr.wisconsin.gov/topic/invasives/classification.html

The invasive species rule, Wis. Admin. Code NR 40, makes it illegal to possess, transport, transfer or introduce certain invasive species in Wisconsin without a permit. This site contains the species list with ID and control information, details of the rule, and guides for compliance.

Upper Sugar River Watershed Association

uppersugar.org

The Upper Sugar River Watershed Association's mission is to provide leadership for continuous resource improvement through strategic partnerships that benefit the watershed's land, water and people.

Front panel photo credit: By Pibwl - Own work, CC BY-SA 3.0
Graphic design by Brooke Wentland

BEST MANAGEMENT PRACTICES for INVASIVE PLANTS in Rights-of-Way



Invasive plants are taking a toll on Wisconsin's roadsides and nearby natural areas. Dane County is working with citizens and partners to slow the spread of invasive species. Through educational outreach, strategic planning, and active management we are protecting our environment and economy from invasives.

Inside this document you will find selected best management practices for preventing invasions, ID and control recommendations for five species of concern in south central Wisconsin, and a list of resources for further information.

fyi.extension.wisc.edu/wifdn lwrd.countyofdane.com uppersugar.org

Design sponsored by Wisconsin Department of Natural Resources (WDNR) Lake Monitoring and Protection Network 2021.

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Wild Parsnip
Pastinaca sativa

Identifying Characteristics

- Up to 5′ tall ridged stems
- Flat circular clusters of tiny yellow flowers, late spring to mid-summer
- Leaves with 2-7 pairs of leaflets
- CAUTION: Avoid contact as sap causes chemical burns.

Mowing Recommendation MOW

90-100% effective in year of mowing when timed right after emergence of main flowerhead. Repeat mowing of resprouts if concerned about seed production. Need to repeat for 3-5 years to reduce population.





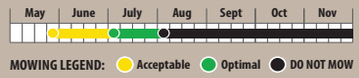
Teasels
Dipsacus spp.

Identifying Characteristics

- 2-6′ tall spiky stems
- Egg-shaped spiky flowerhead with tiny purple or white flowers, throughout summer
- Opposite leaves clasp stem

Mowing Recommendation MOW

90-100% effective in year of mowing. Time just after flowerheads open but before seeds enlarge. Repeat mowing of resprouts if concerned about seed production. Need to repeat for 3-5 years to reduce population.





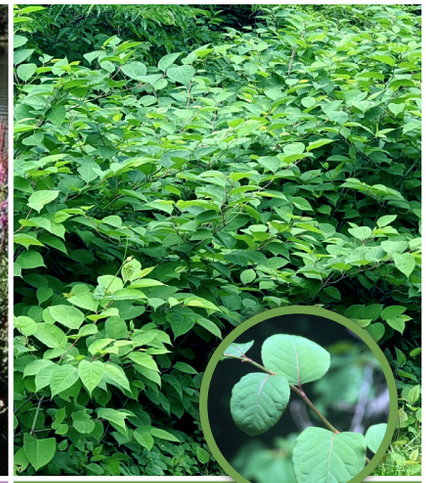
Purple Loosestrife
Lythrum salicaria

Identifying Characteristics

- 3-9′ tall
- Spikes of magenta flowers in mid-late summer
- Opposite or whorled, lance-shaped leaves 1-4″ long
- Stems knobby and shrub-like as plants mature

Mowing Recommendation MOWING INEFFECTIVE

50-70% effective in year of mowing. To prevent seed production, mow in late summer after flowers emerge, before seeds produced. To suppress population, mow 3x/season starting in late spring and repeat before flowers form. Consider state approved beetle biocontrol.



Knotweeds
Fallopia spp.

Identifying Characteristics

- Arching, bamboo like stems
- Up to 10′+ tall
- Spade shaped-leaves 4-6″+ long & ~3-4″+ wide
- Spikes of tiny whitish flowers in late summer

Mowing Recommendation DON'T MOW

NOT EFFECTIVE AS STAND-ALONE METHOD. 50-70% effective at vigor reduction in year of mowing. Mow at least 4x/year, whenever plants reach 2-3′ tall, repeating through fall. Mowing will NOT kill root balls in a practical manner. Cutting is recommended late summer before spraying to reduce plant height. Need to collect cut material and burn or dispose in landfill to prevent new infestations.



Non-native Phragmites
Phragmites australis ssp. australis

Identifying Characteristics

- 3-20′ tall grass in dense stands
- Dense feathery plumes of flowers mid-summer to fall
- Leaves blue-green

Mowing Recommendation DON'T MOW

NOT EFFECTIVE AS STAND-ALONE METHOD. May use mowing to remove biomass of dead standing stalks after herbicide treatment. Root clumps and seed heads stuck in machinery can fall out down the road and start new infestations. Be sure to thoroughly clean mow decks after cutting if you must mow this grass.

Chemical Recommendations for Foliar Herbicide Applications* (A = acre; fl = fluid; gal = gallon; oz = ounce; v = volume; wt = weight)

**Disclaimer: Any mention of specific products or trade names are included for reference only and do not constitute an endorsement by the Wisconsin Department of Natural Resources, Dane County Land and Water Resources Department, or the Renz Lab. Users are responsible for following label directions. Use requires WDNR permitting near surface water.*

Broadcast:
Escort @ 0.5 oz wt/A or
Opensight @ 2 fl oz/A or
TerraVue @ 2.85 oz wt/A

Spot:
Escort @ 0.04 oz/gal

Broadcast:
Escort @ 0.5 oz wt/A or
Opensight @ 2 fl oz/A or
TerraVue @ 2.85 oz wt/A

Spot:
Escort @ 0.04 oz/gal

Broadcast:
Arsenal/Habitat @ 12 fl oz/A

Spot:
Arsenal/Habitat @ 0.5-1% v/v

Broadcast:
Milestone @ 14 fl oz/A

Spot:
Milestone @ 0.4% v/v

Broadcast:
Rodeo @ 96 fl oz/A

Spot:
Arsenal/Habitat 1-1.5% v/v or
Rodeo @ 2-3 % v/v