Dealing with Invasive Plants

By the Book!!!

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NR40 Wisconsin's new invasive species rule

Prohibited species

- are not yet in the state or only exist as small populations

Restricted species

- are invasive species that are already too widespread to expect statewide eradicated.

http://dnr.wi.gov/invasives/classification/

Prohibited Terrestrial Plants

Common names
Amur honeysuckle
Black swallow-wort
Celandine
Chinese yam
European marsh thistle
Giant hogweed
Giant knotweed
Hairy willow herb
Hill mustard
Japanese honeysuckle
Japanese stilt grass
Japanese hedge parsley
Japanese hops
Kudzu
Lyme grass or sand ryegrass

Common name
Mile-a-minute vine
Pale swallow-wort
Perennial pepperweed
Porcelain berry
Poison hemlock
Princess tree
Tall or Reed manna grass
Sawtooth oak
Scotch broom
Sericea lespedeza
Spreading hedge parsley
Wild chervil
Wineberry
Yellow star thistle

Present in Wisconsin

Summary of listed terrestrials

Class	# species	% woody	% perennials	% an/bien	% ag weeds
Prohibited	17	18	29	11	18
Prohibited/ Restricted	12	11	21	11	29
Restricted	32	32	21	28	71
Total	61	28	46	23	54

Regulations for Prohibited Categories

No person may do the following without a permit

- **transport** (import/move)
- **possess**, **transfer** (buy/sell)
- **introduce** a prohibited species

DNR may order or conduct control

Regulations for Restricted Categories

No person may do the following without a permit

- **transport** (import/move)
- **possess, transfer** (buy/sell)
- **introduce** a restricted species

Control encouraged but not required

Transport, possession, transfer or introduction <u>is NOT a violation if</u>:

DNR determines

- it was incidental or unknowing

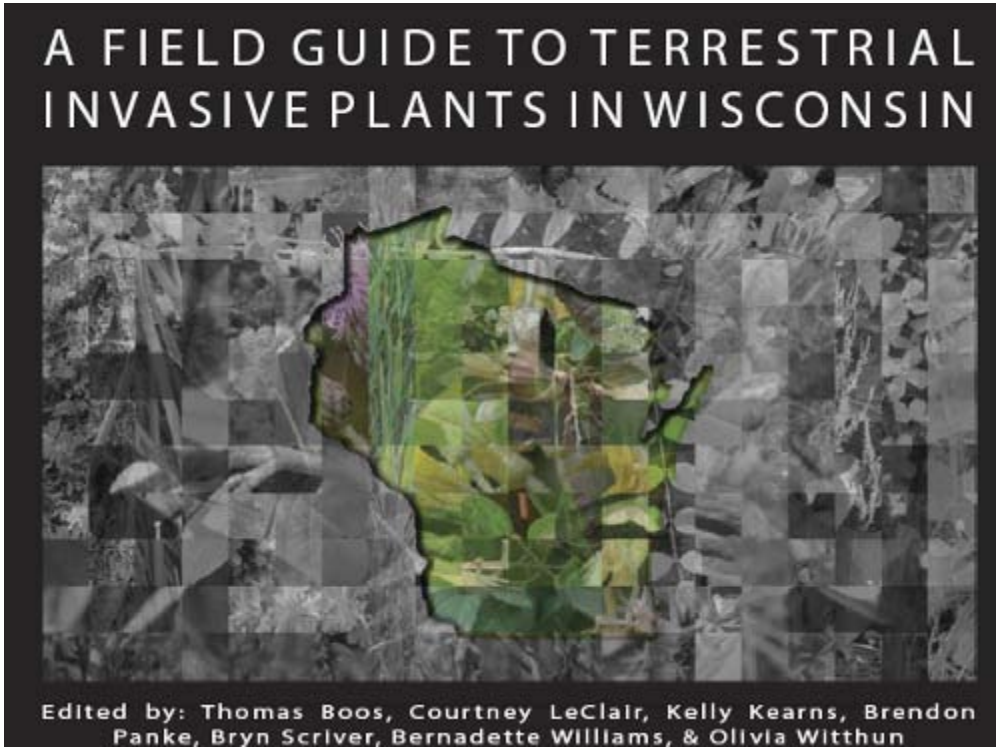
- it was not due to the person's failure to take reasonable precautions

How does one take reasonable precautions to prevent spread?

- Specific to life history of plant
  - annual, biennial, perennial
- Activities occurring at the site of infestation

Step 1 : *identify listed plants and how they spread!*

- http://weedid.wisc.edu
- DNR will soon be printing a field guide to help with identification



Multiflora rose *Rosa multiflora*

Multiflora rose *Rosa multiflora*

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Multiflora rose is a thorny thicket-forming shrub with wide, arching canes and stiff, curved thorns. It can grow 6-15′ tall and 6-13′ wide.

Leaves: Alternate, pinnately compound with 5-11 small (0.5-1″) sharply-toothed oval leaflets, nearly smooth on upper surface and paler with short hairs on underside. Pair of fringed stipules at the base of each leaf.

Flowers: Abundant, showy, fragrant, and white to slightly pink. Flowers are 0.5-1.5″ wide and form a panicle. Bloom mid- to late spring.

Fruits & seeds: Clusters of small (0.25″ in diameter), hard, bright red fruits, or rose hips, develop in summer, become brownish-red at maturity, and remain on plant through winter. Dispersed by birds and mammals.

Roots: Stolons can root at the nodes; arching stems are capable of rooting at their tips.

Similar species: Native roses are distinguished by stipules with entire margins and slender, straight thorns. Most native roses have larger, pink flowers.

Ecological threat:

- Multiflora rose invades open woodlands, forest edges, old fields, roadsides, savannas, and prairies.
- It is extremely prolific and can form impenetrable thickets that cast dense shade and exclude native plants.

Control:

- Manual/Mechanical: Dig up or pull using a tractor. Mow 3 to 6 times during the growing season for 2 to 4 years. Early spring burns can be effective in fire adapted communities, but areas must be monitored for seedlings and re-sprouts.
- Chemical: Foliar spray with metsulfuron-methyl, glyphosate, or triclopyr. To prevent bud development the following year, foliar spray with fosamine ammonium in late summer. Basal bark treat with triclopyr ester. Cut-stump treat with glyphosate or triclopyr.

How do these listed species spread?

- Specific to life history of plant
  - Annuals and biennials: seed only
  - Perennials:
    - Seed
    - Perennial tissue: can vary by species, but can include
      - Stems, roots and rhizomes

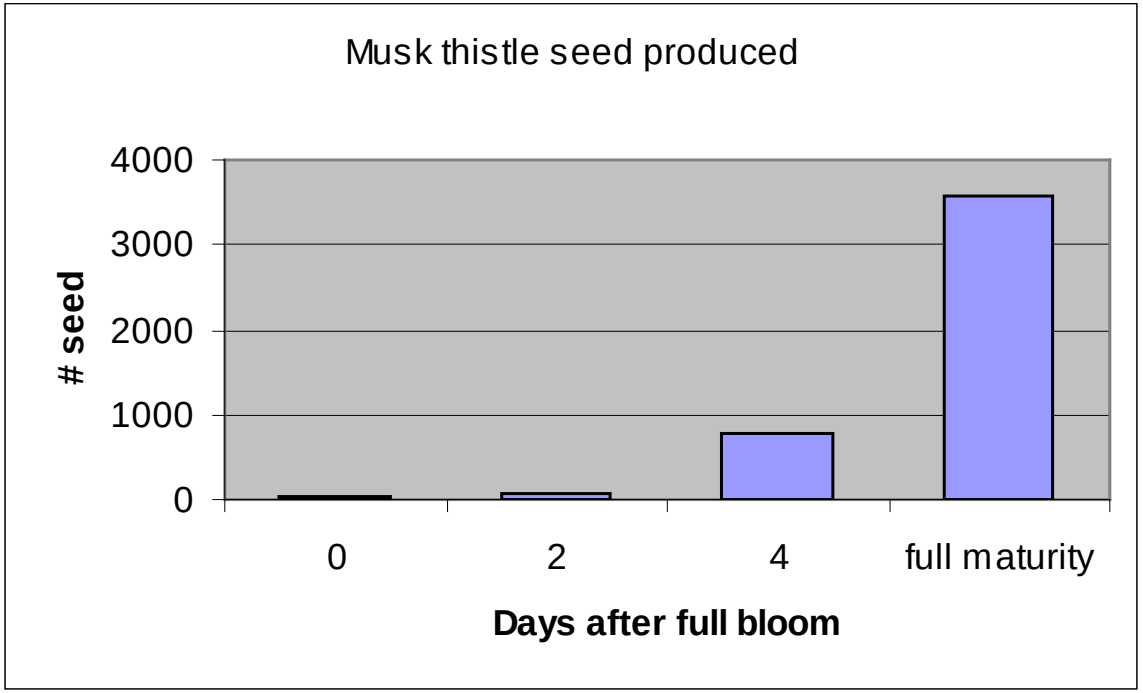
How to limit spread of seeds?

- Be aware of listed plants at each site
  - And when they produce seeds!
- Consider activities that have the potential to spread seeds
  - Harvesting and transporting forage
  - Transporting soil with seeds present

- If potential exists for seed spread consider
  - Managing listed plants
  - Cleaning muddy equipment

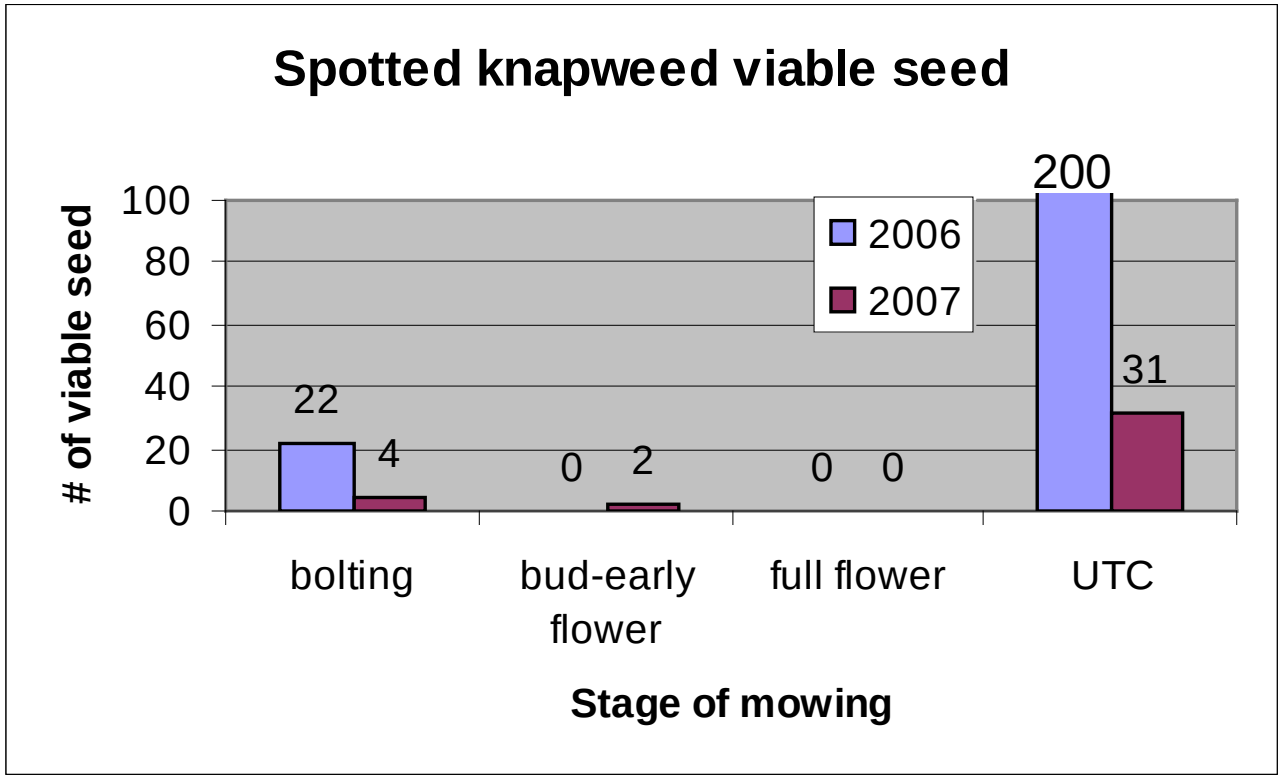
Mowing to prevent seed production

- Species specific, but best results seen flower-bud to early flowering, some viable seeds can result if mowed late in flowering with some species.



Mowing to prevent seed production

- Perennial weeds generally can resprout, they often do not produce viable seed

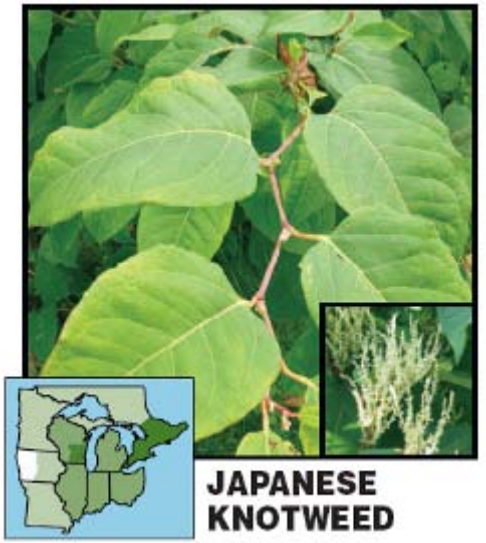


Herbicides to prevent seed production

Seed production/viability

How to limit spread of shoots?

- Only a few species are documented to be able to resprout by shoots:
  - Phragmites, Japanese knotweed, giant knotweed
  - Canada thistle, perennial pepperweed



- Ensure shoots are not removed from the site until dried enough to reduce potential to resprout.

How to limit spread of below ground perennial tissue?

- Do not disturb/move the soil where these can be found

- If potential exists for spread consider
  - Managing listed plants to reduce below ground tissue
  - Cleaning equipment before leaving site

Best Management Practices for invasives developed for some areas

- Include:
  - Right of Way, Recreational use, Forestry, Urban Forestry:

http://council.wisconsinforestry.org/invasives/

Cleaning procedures

- Remove plant parts, seeds, and dirt that may contain plant parts from anything transported off infested site

- Many types of equipment available:
  - Pressure washers
  - Pressurized air
  - Brush

Example 1:

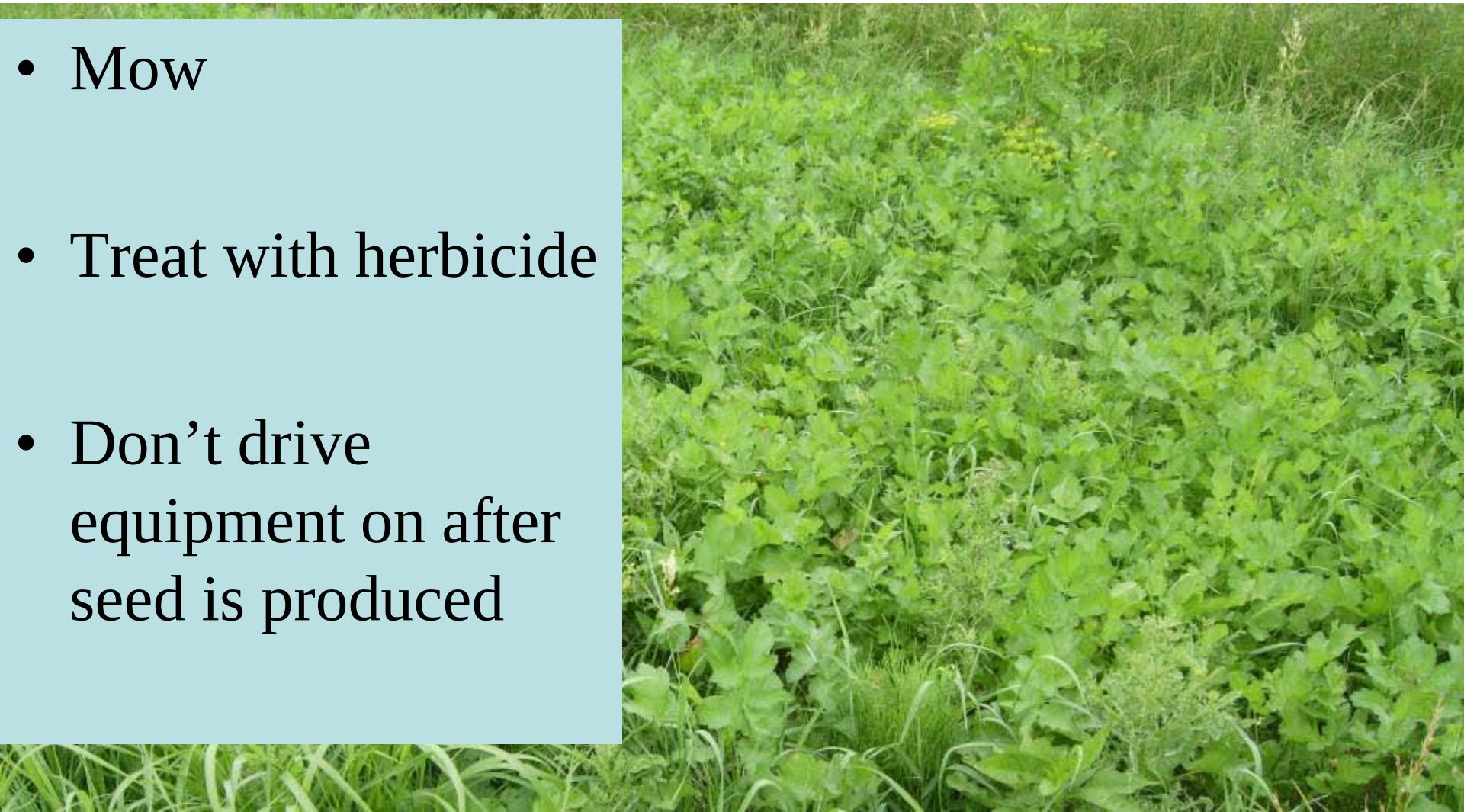
Pasture with Canada thistle

- Mow/harvest before it flowers
- Treat with herbicide
  - Will prevent seed production
- Use on farm, and don’t transport

Example 2:

Filter strip with Wild Parsnip

- Mow
- Treat with herbicide
- Don’t drive equipment on after seed is produced



Example 3:

Japanese hops growing in a Corn field (silage)

- Don’t do anything, but keep silage on farm (if area where it is restricted = Grant county)

- Treat (cultivation, herbicide) to prevent seed production (and yield loss)

Example 4:
harvesting operation

- If seeds are present:
  - Treat before harvesting to eliminate seeds
  - Wash equipment before transporting off site
- If perennial tissue
  - Wash equipment before transporting off site

What to do when the snow melts

Producers/Consultants

- Determine if you have listed species and their means of spread
- Evaluate if activities on infested sites have the potential to spread listed plants
- If so implement plan and document what you conducted and the stage of weed development

What to do when the snow melts
Fed./State/County Agency Personnel

- Training session on ID and control methods
- Check seed mixes recommended do not contain a listed plant.

- Help map known invasive populations and promote their management
- Specify certified weed-free mulch in contracts
- Revise policies to encourage invasive control