

## Invasive weeds a spreading roadside problem

Populations of several bad weeds have begun to explode in Wisconsin, and they are using our roadsides for their dirty work. Like the zebra mussel and the gypsy moth, these are destructive foreign invaders. They are invading farm and grazing lands, attacking hunting and fishing habitats, and costing us plenty.

Four of the worst are wild parsnip, spotted knapweed, leafy spurge, and Canada thistle. They hitchhike across the landscape on mowers, off-road vehicles, construction equipment and wind.

Most people don't know that mowing these plants after they set seed can turn a small patch into a big problem—both along the road and on adjacent lands. Spot spraying with the correct herbicides is the most effective treatment. Mowing at the right time, or not at all if they are in seed, can help limit their spread.

**WILD PARSNIP** causes skin blisters like poison ivy, but more serious. Roadside crews should beware of this nasty plant whose flower stalk looks like an overgrown version of the herb, dill. When juice from the plant contacts bare skin and the skin is exposed to daylight, the resulting blisters cause pain and scarring.

"Wild parsnip is probably the most critical invasive plant for road agencies to be aware of because of the human health issues," says Kelly Kearns, DNR Plant Conservation Program Manager. "It's spreading rapidly right now and roadsides are by far the most common way it spreads." WisDOT recently printed a poster showing the plant, skin damage, and methods of control.



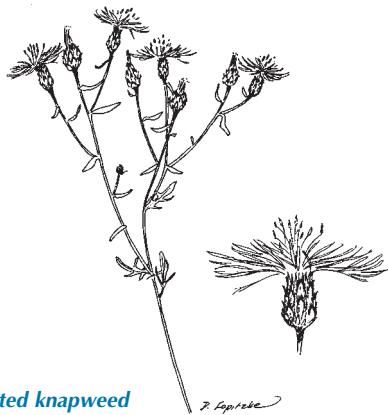
**Wild parsnip**

Flower stalks grow to 4' with umbrella-like clusters of yellow flowers (early July) that form large flat seeds. Don't mow when in seed.

Mowing in the early flowering stage, usually two weeks in early July, can help control wild parsnip. But if the plants have set seed, mowing crews should let them stand. Left alone, the heavy seeds will fall to the ground nearby. However, if they are mowed, the equipment picks up the seeds and distributes them along the roadside, making the problem worse. Spot spraying with Escort® or Roundup® in fall or early spring is effective.

**SPOTTED KNAPWEED** is a pretty but nasty purplish-pink flowered plant that kills all the other plants around it. The roots put out a toxin that clears everything in its path. "In the southwestern states it has destroyed millions of acres of grazing land," says Kearns.

"Where it has taken hold there are huge soil erosion problems. It has a



**Spotted knapweed**

Small thistle-like pinkish-purple flower heads on 2' to 4' stems. Flowers late June through August. Do not mow; mowing spreads seeds.

limited root structure and no other plants can grow to hold the soil."

Mowing does nothing to control knapweed, and mowing when it's in flower—late June through August—spreads the plant's thousands of seeds. Spot spraying with herbicides works, as do prescribed burns. Burning on roadsides has been very effective in Iowa, but is not often done in Wisconsin, Kearns says. "The best approach is prevention. Watch for small infestations and get rid of them before they spread," she says.

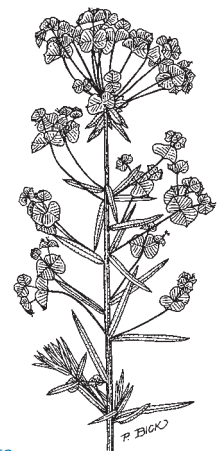
Two other problem invaders, leafy spurge and Canada thistle, are more familiar. They are "noxious weeds" under Wisconsin law, which requires landowners to attempt their eradication.

**LEAFY SPURGE**, 6"-36" tall with yellow-green flowers in late May and June, quickly invades and dominates roadsides, pastures, and old fields, and is hard to control. It is toxic to cattle and deer and the milky sap can cause blisters and skin irritation in humans. Roadside crews should learn to recognize and avoid it.

"It and Canada thistle are a big problem on roadsides, especially in the southern part of the state," says WisDOT Landscape Architect Dick Stark. "We are making an effort to combat leafy spurge now in the counties where it's not yet a big problem." Finding small patches and attacking them aggressively with Plateau® before they spread is the best strategy. Fall is the best time to spray.

In Adams County where leafy spurge is a problem in only a few areas, the WisDOT District Maintenance office and local DNR wildlife manager have cooperated on a control project. County crews located and mapped the leafy spurge populations along state highways; then the local DNR wildlife manager sprayed them with herbicide.

Mowing when the plant is in flower worsens the problem by spreading the seed. Mowing in late spring before seeds mature, and again in midsummer to prevent reflowering, helps control the plant. Other control methods include releasing a specialized beetle that feeds on the foliage and roots, grazing by goats and sheep, and prescribed burns.



**Leafy spurge**

Grows 6" to 36" tall with bluish-green leaves and yellow-green flowers that bloom in May and June. Mow in late spring before seeds mature and again in mid-summer to prevent regrowth.

**CANADA THISTLE**, also a noxious weed, is a problem where soil is disturbed, as it often is on roadsides and agricultural fields. It is a major agricultural pest, costing tens of millions of dollars in crop losses annually. It should not be allowed to go to seed and can be contained by mowing close to the ground while the plant is in full bloom or just before flowering, which begins in early July. Applying Transline® annually for at least three years is effective. It should be applied in spring when plants are 6"-10" tall. Reduced mowing in the right of way that lets native species thrive can also help keep it under control.



Canada thistle

Grows 1 1/2' to 4' tall with prickly leaves. Rose-purple, lavender, or sometimes white flower heads appear from June through October. Mow before flowers open.

Knowing that road agency budgets are stretched to the breaking point, Kearns offers some low-cost strategies for slowing the spread of these leafy villains:

**Know the enemy.** Teach mowing crews to recognize these and other invasive species. Local DNR and UW-Extension people can help. Use free posters and pocket size cards as handy reminders.

**Mow smart.** Don't mow patches where seeds have formed. Mow just before flowering or very early in the flowering phase.

**Keep at it.** These are tough plants to get rid of. Seeds and roots can survive in the ground and sprout for multiple years. Plan to keep going back each year.

**Join forces.** Your crews know their roads best. Forge working relationships between your agency and local land managers, citizen environmental groups, and natural resources specialists. They

## On-line WISLR offers much

The Wisconsin Information System for Local Roads (WISLR) database offers local officials a useful tool for decision-making. The Internet-based system is accessible from anywhere in the state and lets users obtain data and maps of their local road systems.

Inventory information is available now. Pavement ratings data is being processed. About 88% of submitted 2003 pavement ratings have gone through initial loading with, on average, about 80% of the submitted rating data loading successfully.

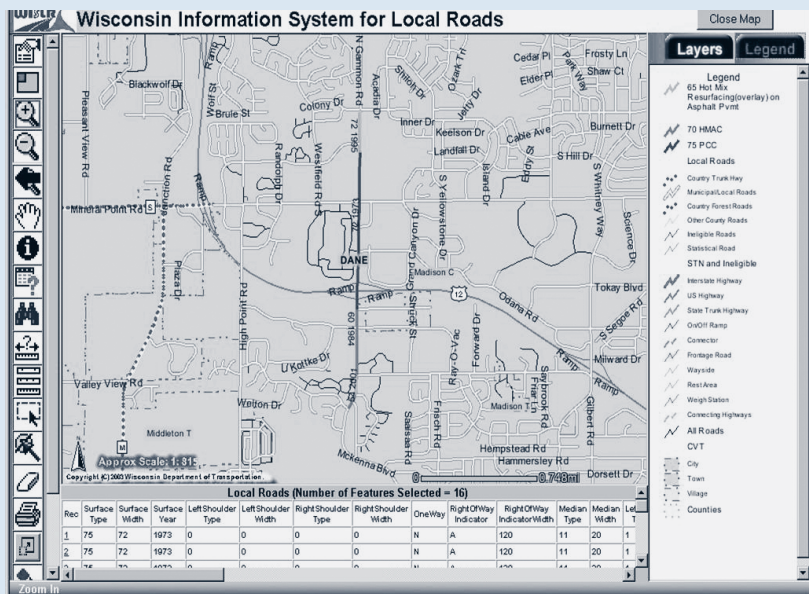
"WISLR now offers an abundance of valuable data which local governments and transportation agencies can use," says Joe Nestler, Chief of State Highway Program Development. Locals can check certified mileage information and look at roadway inventory data on line. Especially useful is the GIS-based mapping function.

The system can display a variety of different information as tables or graphically: pavement type, number of lanes, pavement condition, pavement width, shoulder, curb, and administrative attributes such as owner and functional

classification. "The ability to map information may prove useful for their business purposes," Nestler says. "It may help identify trends that are hard to intuit from a spreadsheet. You might see, for example, that a large number of needy pavements are in one subdivision, or of a specific pavement type, or from a specific construction year."

WISLR can also do rudimentary pavement needs analysis. Although it is not a pavement management system, WISLR's pavement analytical tools can provide very useful information to decision-makers—information that can be displayed graphically. WISLR's pavement tools will be available in June or July.

Over 400 local governments are currently using WISLR. Soon, users will have the ability to access and edit their pavement information online. By the time pavement condition reports are due again in 2005, local agencies will be able to load their pavement ratings directly into the WISLR system, if they choose. Training programs for editing data are expected to start later this year, continuing in 2005.



Find out how to access WISLR online at <http://www.dot.wisconsin.gov/localgov/wislr/>

may have resources to help train your crews and help locate priority weed infestations to control.

For more information contact DNR Plant Conservation Program Manager Kelly Kearns at 608/267-5066 or [Kearns@dnr.state.wi.us](mailto:Kearns@dnr.state.wi.us).

See Resources for a packet of information on these and other invasive species.

Other resources include the 15 UW-Extension Basin Educators (find at: <http://clean-water.uwex.edu/basins/meeteds.html>) or ask your county UW-Extension office).