

Number 2 - May 4, 2015

Noxious Weeds

The State of Illinois has two “legal” lists of problematic plants that require attention – Noxious Weeds and Exotic Plants.

The Illinois Noxious Weed Law, set into Illinois Administrative Code, lists 10 weeds that must be controlled on property owned or managed. These weeds have detrimental effects on public health, agricultural crop production, or animal production. This law is under the direction of the Director of the IL Department of Agriculture. Most counties in Illinois have a designated Weed Commissioner for local control authority.

Weeds on this list include Common Ragweed (*Ambrosia artemisiifolia*), Giant Ragweed (*Ambrosia trifida*), Marijuana (*Cannabis sativa*), Musk Thistle (*Carduus nutans*), Canada Thistle (*Cirsium arvense*), Kudzu (*Pueraria montana, P. lobata*), Perennial Sowthistle (*Sonchus arvensis*), and various sorghums including Johnsongrass (*Sorghum halepense*) and Columbus grass (*Sorghum almum*).

The two ragweeds need only to be controlled within the corporate limits of cities, towns and municipalities. All other weeds on the list must be controlled anywhere in Illinois.

Noxious weeds must be controlled so they don't produce seeds or any other

means for propagating, or totally eradicated using legal means.

It should be noted these are outdoor-grown weeds. That's important now with one of the weeds.

More information on the IL Noxious Weed Law can be found at:

<http://www.agr.state.il.us/Laws/Regs/8iac220.pdf> (David Robson)

Exotic Weed Act

The Illinois Exotic Weed Act, also set into Illinois Administrative Code, is managed by the IL Department of Natural Resources. These non-native plants, when planted, will spread by seeds or vegetative propagules (rhizomes, bulbs, tubers, corms, etc.) and naturalize, degrading natural communities, reducing the value of fish or wildlife habitat, and threatening Illinois endangered or threatened species.

For most of these plants, it's the seeds that have caused these plants to spread, particularly in forested and wooded areas.

This law doesn't require the owner or manager of property to remove these plants like the IL Noxious Weed Law. However, do everything to prevent them from spreading, including removing flowers before they set seed. The Act

does state you cannot sell or plant these without permission from IDNR.

The following species are on the list. Additionally, and this is crucial, ALL their cultivars are included, no matter who or what says the cultivars are sterile. Any cultivar of these plants **CAN-NOT** be legally sold or planted in Illinois without a permit from IDNR. This includes all the so-called sterile purple loosestrife cultivars as well as the Fine-Line® buckthorns.

Included plants include Japanese honeysuckle (*Lonicera japonica*), multiflora rose (*Rosa multiflora*), purple loosestrife (*Lythrum salicaria*), common buckthorn (*Rhamnus cathartica*), glossy buckthorn (*Rhamnus frangula*), saw-toothed buckthorn (*Rhamnus arguta*), dahurian buckthorn (*Rhamnus davurica*), Japanese buckthorn (*Rhamnus japonica*), Chinese buckthorn (*Rhamnus utilis*), and kudzu (*Pueraria lobata*). Kudzu is the only plant also on the Noxious Weed list.

At the moment, IL Senate Bill 681 seeks to amend the Exotic Weed act, adding bush honeysuckles (*Lonicera maackii*, *Lonicera tatarica*, *Lonicera morrowii*, and *Lonicera fragrantissima*), exotic olives (*Elaeagnus umbellata*, *Elaeagnus pungens*, *Elaeagnus angustifolia*), salt cedar (all members of the *Tamarix* genus), poison hemlock (*Coinium maculatum*), giant hogweed (*Heraclium mantegazzianum*), Oriental bitter-sweet (*Celastrus orbiculatus*), lesser celandine (*Ficaria verna*), teasel (all members of the *Dipsacus* genus), and Japanese, giant, and Bohemian knotweed (*Fallopia japonica*, syn. *Polygonum cuspidatum*; *Fallopia sachalinensis*; and *Fallopia x bohemica*, resp.) to be designated as exotic weeds.

Interestingly, some of the above are obvious weeds (poison hemlock, giant

hogweed, teasels) but are sold for various unsubstantiated herbal or medicinal uses on the Internet.

It should be stressed that these plants are NOT currently illegal to plant or sell in IL. Ultimately, it depends on what the IL legislature and governor does in the next month.

On the other hand, we know the proposed plants are terribly invasive; a wise gardener/landscaper would remove these plants from their design palette, and seriously consider removing these and the designated exotics from the landscape.

For more information, refer to:

<http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1735&ChapterID=44>

(David Robson)

What's That Yellow Weed in Bloom?

Not everything you see that's yellow this time of year is dandelion, or daffodils or forsythia for that matter. Some other species featuring vibrant shades of yellows are currently or soon will be prevalent in roadsides, fields, and gardens particularly in rural settings.

Butterweed, also known as cressleaf groundsel, is additionally known as *Senecio* by many. The latin name was *Senecio glabellus* for many years but was changed in the last few years to *Packera glabella*. Other common names include ragwort and squawweed. Regardless of what you may call it, this is a weed we have been seeing much more frequently in recent years although it is native to North America. It tends to prefer cool, wet conditions and is common in fields

and roadsides. It has been known to find its way into nearby landscape beds.

Butterweed is a winter annual that grows erect on a hollow, succulent, smooth stem from a basal rosette. Stems are typically green but can have a reddish coloring as well, often in vertical stripes. Stems can reach 3 ft. in height. Leaves along the stem are deeply lobed, smooth, and often glossy. The flowers of this aster are somewhat distinct. Appearing in clusters at the end of the stems, they are bright yellow or golden. Unopened flowers are somewhat rounded in shape. Slightly lighter colored outer ray petals number 5 to 15 and surround the slightly darker colored disk florets. The number of petals is useful in differentiating between this species and other yellow weeds in bloom at this time. The seed heads are dandelion-like puffballs which are disseminated by the wind.

Common groundsel (*Senecio vulgaris*) is similar but much smaller at only 4-12 inches tall. This winter or summer annual weed is erect and much branched. The leaves of common groundsel are dark green, lobed, and 2 to 6 inches long. The flowers make this plant fairly easy to identify: they are yellow, about 1/2 inch wide, and are borne in corymbs nearly 3 inches wide. Flower heads are composed of several yellow disk flowers. This weed is often found in fields, nurseries, and landscapes. This species, like butterweed, is also known as Ragwort.

Yellow rocket (*Barbarea vulgaris*) is a winter annual, biennial, or sometimes short-lived perennial mustard, also known as winter cress, bitter cress, and rocket cress. The basal rosette leaves are dark green, thick, and glossy. Young leaves are rounded, sometimes with a

heart-shaped base. Mature leaves have a distinct lobe pattern with the terminal lobe being heart-shaped. The second year, 3 to 8 flowering stems are produced and are much like that of broccoli, which is a related species. The stems are very branched at the top. The flowers are bright yellow with only four petals. The flowers appear on spike-like racemes. They form pyramidal clusters at the ends of branches. Plants can reach 2-3 ft. in height but can tolerate mowing. There are many similar weeds in the mustard family but they bloom later in the year.

These weeds can be controlled by hand removal using a dandelion fork. Be sure to bag up pulled weeds for disposal so that flowers do not continue to develop, producing viable seed. Mowing can be properly timed such that flower and seed production is prevented. Postemergent herbicides such as carfentrazone, MCPA, MCPP, dicamba, 2, 4-D, can be applied. Treating plants when they are young and actively growing (in the fall) would be best.

Sources:

Weeds of the Northeast. (1997). Richard H. Uva, Joseph C. Neal, and Joseph M. DiTomaso. Ithaca, NY: Cornell University Press.

<http://ipm.missouri.edu/IPCM/2010/4/Weed-of-the-Month-Cressleaf-Groundsel-or-Butterweed/>

http://www.msuturfweeds.net/details/_yellow_rocket_35/

<http://www.weedalert.com/details.php?id=123>

<http://extension.psu.edu/pests/weeds/weed-id/yellow-rocket>

(Michelle Wiesbrook)

Modified Growing Degree Days (Base 50°F, March 1 through April 29)

Station Location	Actual Total	Historical Avg. (11 year)	One-Week Projection	Two-Week Projection
Freeport	189	151	248	316
St. Charles	179	148	234	298
DeKalb	178	170	241	314
Monmouth	240	203	307	388
Peoria	255	227	327	412
Champaign	252	227	327	412
Springfield	329	258	399	495
Brownstown	303	301	387	487
Belleville	367	321	453	556
Rend Lake	403	352	496	607
Carbondale	390	339	477	579
Dixon Springs	410	373	503	611

Insect development is temperature dependent. We can use [degree days](#) to help predict insect emergence and activity. Home, Yard, and Garden readers can use the links below with the degree day accumulations above to determine what insect pests could be active in their area.

[GDD of Landscape Pests](#)
[GDD of Conifer Pests](#)

Degree day accumulations calculated using the [Illinois IPM Degree-Day Calculator](#) (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey).

(Kelly Estes)

Illinois Invasive Awareness Month Symposium

Join us for the second annual Illinois Invasive Species Awareness Month (ISAM) Symposium at the University of Illinois Extension office, in Champaign, IL on Thursday, May 28th from 9:30 am to 4 pm. It will be a great opportunity to learn more about what is happening on the invasive species front throughout Illinois. The event will feature talks about invasive species ranging from snake fungal disease and white-nose syndrome in bats to aquatic invasive

plants. For more information see the attached announcement. The event is free and open to the public, but registration is required (see below for details). Please forward to this anyone that might be interested.

ISAM Illinois Invasive Species Symposium

May 28, 2015

University of Illinois Extension Office
 801 N Country Fair Drive
 Champaign, IL 61821 (Champaign County)

The Illinois Invasive Species Symposium is a one-day, all-taxa symposium that features talks on current and emerging issues surrounding invasive plants, diseases, insects, and animals in Illinois. Featured as the culmination of the 2015 Illinois Invasive Species Awareness Month, the event also includes the ceremony for this year's Invasive Species Awareness Month Awards.

Registration:

This event is free to the public, but space is limited. Registration is preferred. Save your seat at:

<http://web.extension.illinois.edu/units/event.cfm?UnitID=480&EventID=68615>

Directions:

Detailed directions can be found on the University of Illinois Unit 13 website: <http://web.extension.illinois.edu/cfiv/fiendus.html>

[Agenda](#)

(Kelly Estes)

Phomopsis Cankers

There are a number of species of *Phomopsis* fungi which cause cankers on a

wide variety of hosts. The most common ornamental hosts include juniper, red cedar, Russian olive, and holly. The cankers usually begin as small, dead areas on the branches and shoots. As the disease progresses, the cankers coalesce until they girdle the branch. All tissue past that point will die, leading to tip blight and dieback.

The fungus overwinters in cankers on infected plants. Infection resumes in spring due to the wet environmental conditions which favor the production and spread of spores. Wounds, including pruning cuts, are an effective point of entry for the fungus. Reinfection can occur repeatedly during the growing season if favorable conditions continue.

Phomopsis cankers are often associated with stressed plants and are rarely fatal on their own. However, they damage the aesthetics of the host and further increase the amount of stress on the host. Stressed plants are more susceptible to pathogens and pests, and less able to repair damage caused by biotic and abiotic factors.

Already this year the Plant Clinic has received samples of juniper, holly, and kerria plants with Phomopsis cankers. On herbaceous stems the cankers often appear as round or oblong dark brown to black lesions. The center of the lesions may be a lighter color, darkening as the surrounding plant tissue dies.

On woody plants, the cankers may be more difficult to see. Look for sunken areas with a darker margin. You may be able to find cankers by looking at the area of the branch between the healthy and the affected leaves or needles. The sapwood under the bark is usually dark

brown or black, indicating tissue death. On junipers and red cedars, the most common symptom of Phomopsis is tip dieback.

Management for Phomopsis cankers focuses on cultural techniques. Because the fungus does not overwinter in the soil, pruning and destroying infected shoots or branches is an effective way to reduce the amount of the fungus in the landscape. When installing plants, space them appropriately to allow for good air movement. Larger plants can be pruned to increase air movement and allow for more thorough drying of plant tissue. Fungicides with the active ingredient thiophanate-methyl are recommended for use against this disease. Ensure that any fungicide you plan to use is labeled for use on the host plants you are treating. (*Diane Plewa*)

Insecticides in Bedding Plants

There have been concerns about the use of neonicotinoid insecticides, particularly imidacloprid, clothianidin, thiamethoxam, and dinotefuran, in bedding plants purchased at garden centers, and their effects on honey bees and other pollinating insects. Much of this interest was generated by a report by Friends of the Earth of analyses conducted on bedding plants being sold in garden centers in spring 2013 and published later that year. A review article I wrote is at http://web.extension.illinois.edu/ipr/i8739_829.html#124754. This was followed by a more extensive study, *Gardeners Beware 2014, Bee-Toxic Pesticides Found in "Bee-Friendly" Plants sold at Garden Centers Across the U.S. and Canada* that can be accessed at <http://libcloud.s3.amazonaws.com/93/>

[3a/3/4738/GardenersBewareReport_2014.pdf](#).

Earlier this year, Lowe's announced that they will phase out sales of neonicotinoid insecticides by 2019 as they identify replacement insecticides. Many garden centers are requiring that growers label bedding plants as to whether neonicotinoids insecticides have been used on them.

AmericanHort, Society of American Florists, Horticultural Research Institute, and American Floral Endowment issued a statement in response to Lowe's position on neonicotinoid insecticides as follows:

April 9, 2015 (Washington, D.C.) - As professional horticulturists, we grow trees, plants and flowers, and healthy trees, plants and flowers are critically important to healthy bees and healthy bee habitats. Pollinator health is a highly complex issue, and we recognize that there many factors that can affect bee health. Although the improper use of pesticides can harm bees, a growing number of credible independent studies indicate that neonicotinoids, when used as directed, are not the cause of widespread bee health issues.

Consumers want plants that are healthy, beautiful and pest-free, and neonicotinoids have proven to be among the most effective pest management tools available. Neonicotinoids also are among the safest products we have for both our employees and the environment.

Lowe's position is surprising, considering the most recent and positive reports on the state of honeybee health (NASS honey report) and recent peer reviewed re-

search. This is an issue for which sound science must take priority. Plant growers are experts on how to produce healthy plants. We embrace the challenge of protecting bee and pollinator health and the opportunity to be part of the solution. We will continue to fund important research on the health of bees, and guide horticulture on safe and responsible pest management. Horticulture will look to the best science to guide our efforts. For additional information on what horticulture needs to know about pollinator health, view our video at <http://bit.ly/ProtectingPollinatorsVideo>.

The full statement is at <http://files.ctctcdn.com/cfdf4ef7001/3f2a086b-d1bc-417e-89c7-e6f0d79e4ea3.pdf>.

There are numerous research studies that show links between neonicotinoid insecticides and other pesticides with honey bee and other pollinator declines. There are also numerous studies that show links of other factors with these declines. Perhaps the joint EPA and USDA report on pollinator decline issued in May 2013 is the most comprehensive. My review article of that report is at http://web.extension.illinois.edu/ipr/i8627_829.html#123485.

It is not possible to prove that neonicotinoid insecticides in bedding plants and those used on home gardens and landscapes are not major factors in honey bee and other pollinator declines. It is impossible to prove any negative. However, various studies and reports indicate that these insecticides probably play only a minor role in these declines.

Many experts feel that besides relatively low levels of insecticides in the pollen

and nectar of treated plants, there is a dilution effect by non-treated plants that are visited in the landscape. This is tempered by recent research showing a preference in honey bees and bumblebees to neonicotinoid-treated plants (<http://www.nature.com/nature/journal/vaop/ncurrent/full/nature14414.html#close>). Honey bees and bumblebees have previously been shown to have a preference for nicotine, so this preference for neonicotinoids is not a complete surprise.

The European Commission's two-year moratorium on neonicotinoid insecticide use on flowering crops ends at the end of 2015. The resulting analyses and report should be useful in understanding the situation. France stopped the use of neonicotinoid insecticides in 1999 and still has honey bee colony collapse disorder. A recent report states that Australia does not have colony collapse disorder and uses neonicotinoid insecticides, but does not have varroa mite. Varroa mite is a debilitating pest of honey bees that also transmits several viral diseases to honey bees.

University of Illinois Extension continues to recommend the use of neonicotinoid insecticides in controlling insect pests. We will continue to do so as long as their use is supported by research showing they are effective in controlling pests while presenting acceptable risks to human health and the environment, including pollinators. The *Illinois Commercial Landscape and Turfgrass Pest Management Handbook* also recommends other insecticides for control for those pests where neonicotinoids are recommended except for two insects. We now also recommend the use of emamectin benzoate to control those

two pests, bronze birch borer and flat-headed appletree borer. We recommend the application of imidacloprid and dinotefuran to control emerald ash borer after three-quarter leaf expansion to avoid potential ash pollen contamination. (Phil Nixon)

Eastern Tent Caterpillar

Eastern tent caterpillar has hatched throughout Illinois. They are particularly numerous in southern Illinois, particularly along I-70. Removal of the tents at night or on cloudy days, or the application of an insecticide such as *Bacillus thuringiensis kurstaki* (Dipel, Thuricide), is recommended at this time to prevent heavy defoliation.

The larvae hatch at bud break of their hosts, which are primarily trees in the rose family. These include crabapple, wild black cherry, hawthorn, serviceberry, mountain ash, flowering plum, and flowering cherry. Fruit trees, including apple, peach, apricot, pear, and plum are also attacked. When newly hatched, the larvae are black but develop yellowish white stripes down their back within a few days. After sitting on the egg mass on the twig for a couple of days, the larvae migrate to a twig crotch where they spin a white, communal silk tent.

The caterpillars leave the silk tent at various times throughout the day to feed on the leaves. Leaves are eaten from the margin inward, sometimes leaving only the midvein, which soon dries, curls, and falls off of the tree. Heavily infested trees can be totally defoliated. Defoliated trees typically survive this feeding damage and releaf later in the spring with few, if any, noticeable effects.

Fully grown larvae reach about 2 inches in length and are black, with an obvious yellowish white stripe down the back. Close examination reveals gold stripes, blue spots, and other small markings. As the caterpillars become larger, they increase the size of their tent to accommodate them.

When fully grown, the larvae leave the tree and migrate across the ground until they find a protected area to pupate

within a silk cocoon. Adult moths emerge in about 2 weeks and are brown, with white bands across the wings. They are about 1 inch long with 1-1/2-inch wingspans. After mating, female moths lay their eggs in reddish brown clusters that wrap around pencil-size-diameter branches. Each egg mass is about 1/2 inch long and contains 100 to 300 eggs. These eggs do not hatch until the following spring when bud break occurs.

(Phil Nixon)