Home, Yard, and Garden Pest Newsletter

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Japanese Beetles on Ornamental Plants

Japanese beetle on rose, Sarah Hughson, University of Illinois

They're back! Adult Japanese beetles (*Popillia japonica*) have emerged in Illinois and are beginning to feed on ornamental plants. Japanese beetle adults have a broad host range, feeding on over 100 plant species including linden, buckeye, rose, crabapple, apple, grape, and raspberry. They may feed on the foliage, flowers and fruits of their host plants, skeletonizing leaves so only the leaf veins remain. Beetles tend to feed on and damage the upper portions of plants which can lead to heavy damage in the tops of trees. In some cases, this means that the damage can go unnoticed by passers-by and may not require treatment. While the damage can be unsightly, it does not usually result in dieback or the death of the plant.

Japanese beetle adults are conspicuous in the landscape and can be easy to identify. They are about 1/3 inch long with a metallic green head and pronotum, copper-brown wing covers and six white tufts of hair that run down each side of their body.

Early control can help reduce future damage from these voracious herbivores because Japanese beetles are attracted to plants with previous feeding damage. Early control can also help reduce populations in the following year by killing adults before they deposit eggs.

Japanese beetle on corn foliage, Sarah Hughson, University of Illinois

Japanese beetles can be controlled by hand-picking. Beetles tend to drop off plants when they are threatened so they can be collected and removed by holding a cup of rubbing alcohol or water and soap beneath the beetles and knocking them into the liquid. This can be done every few days to control population if a chemical-free control method is preferred. However, this is time consuming and if populations are heavy, this method is not practical.

Some chemical controls that can be effective in treating adult Japanese beetles include carbaryl (Sevin), bifenthrin (Talstar), cyfluthrin (Tempo), lambda-cyhalothrin (Scimitar), or permethrin (Astro) foliar sprays. These foliar sprays can be effective in controlling adult beetles for about two weeks. Since Japanese beetle adults are active for about six weeks, more than one application may be required for control. Identify and treat susceptible plants that are focal points in the landscape rather than spraying a broad area. Because Japanese beetles are unlikely to feed enough to cause dieback or kill the plants, this can be effective in reducing aesthetic damage while reducing the use of insecticides in the landscape and protecting pollinators.

Japanese beetle larvae can be controlled by applying imidacloprid (Merit) to soil or turfgrass. This can be effective in controlling the soil-dwelling larvae for the whole summer. Imidicloprid is a systemic insecticide, meaning it is taken up by plants and transported to different plant tissues, including flowers and pollen. This can leave pollinators at risk for exposure to these toxins, so it is important to avoid applying imidicloprid or other systemic insecticides to flowering plants, including linden trees.

Remember to avoid Japanese beetle pheromone traps. Pheromone traps release attractant chemicals that are intended to lure beetles into a trap where they are killed. Unfortunately, in landscapes with attractive host plants, the traps tend to attract more beetles to the area, resulting in additional feeding and aesthetic damage.

Sarah Hughson

Illinois Laws Regulating Noxious, Exotic Weeds

*A patch of Canada thistle (*Cirsium arvense*) growung along a road, Michelle Wiesbrook, University of Illinois*

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

The ***Illinois Noxious Weed Law***, set into Illinois Administrative Code, lists 9 weed species that must be controlled on property owned or managed. These weeds have detrimental effects on public health, agricultural crop production, or animal production. They must be controlled so they don't produce seeds or any other means for propagating, or totally eradicated using legal means. This law is under the direction of the Director of the Illinois Department of Agriculture. Most counties in Illinois have a designated Weed Control Superintendent (Weed Commissioner) for local control authority. Enforcement can result in a fine. The reality is however, that this law tends to be complaint driven and sadly is often poorly enforced due to a lack of funding and personnel. Some counties are stricter than others. This list has primarily remained the same since its creation in the 1970's with only one addition of Kudzu in 2002.

Weeds on this list include:

- Common ragweed (*Ambrosia artemisiifolia*)
- Giant ragweed (*Ambrosia trifida*)
- Marijuana (*Cannabis sativa*) (outdoor grown)
- Musk thistle (*Carduus nutans*)
- Canada thistle (*Cirsium arvense*)
- Kudzu (*Pueraria montana* var. *lobata*)
- Perennial sowthistle (*Sonchus arvensis*)
- Johnsongrass (*Sorghum halepense*)
- Sorghum almum (*Sorghum almum*)

Please note that the two ragweed species 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. The local weed commissioner can also declare certain weeds as noxious in the county under his or her jurisdiction. More information on the Illinois Noxious Weed Law can be found here.

The ***Illinois Exotic Weed Act***, also set into Illinois Administrative Code, is managed by the Illinois Department of Natural Resources (IDNR). 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 the property to control these plants like the Illinois Noxious Weed Law does. Rather, the intent is to prevent the spread. The Act does state you cannot sell or plant these without a permit from IDNR. Please do what you can to prevent these species from spreading, including removing flowers before they set seed. For example, timely mowing can help prevent the spread of Teasel and Poison Hemlock along roadsides. Keep in mind that controlling these species is the ultimate form of preventing the spread of these invasive species. Again, this law does not require control.

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 CANNOT 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 are:

Biennial

Giant hogweed (*Heracleum mantegazzianum*)*

Poison hemlock (*Conium maculatum*)*

Teasel (*Dipsacus spp*.)*

Perennial

Exotic buckthorns

- Chinese buckthorn (*Rhamnus utilis*)
- Common buckthorn (*Rhamnus cathartica*)
- Dahurian buckthorn (*Rhamnus davurica*)
- Glossy buckthorn (*Rhamnus frangula*)
- Japanese buckthorn (*Rhamnus japonica*)
- Saw-toothed buckthorn (*Rhamnus arguta*)

Exotic olives

- Autumn-olive (*Elaeagnus umbellata*)*
- Russian-olive (*Elaeagnus angustifolia*)*
- Thorny-olive (*Elaeagnus pungens*)*

Invasive/exotic bush honeysuckles

- Amur honeysuckle (*Lonicera maackii*)*
- Morrow's honeysuckle (*Lonicera morrowii*)*
- Sweet breath of spring (*Lonicera fragrantissima*)*
- Tartarian honeysuckle (*Lonicera tatarica*)*

Invasive knotweeds

- Bohemian knotweed (*Fallopia x bohemica*)*
- Giant knotweed (*Fallopia sachalinensis*)*
- Japanese knotweed (*Fallopia japonica*, syn. *Polygonum cuspidatum*)*

Others

- Japanese honeysuckle (*Lonicera japonica*)
- Kudzu (*Pueraria montana* var. *lobata*)
- Lesser celandine (*Ficaria verna*)*
- Multiflora rose (*Rosa multiflora*)
- Oriental bittersweet (*Celastrus orbiculatus*)*
- Purple loosestrife (*Lythrum salicaria*)
- Salt cedar (*Tamarix* spp.)

This species list was last added to in January 2016. Kudzu is the only plant also on the Noxious Weed list.

More information can be found here.

Michelle Wiesbrook, adapted from an article written by David Robson, University of Illinois

Monitoring and Mitigating Drought Stress in the Landscape

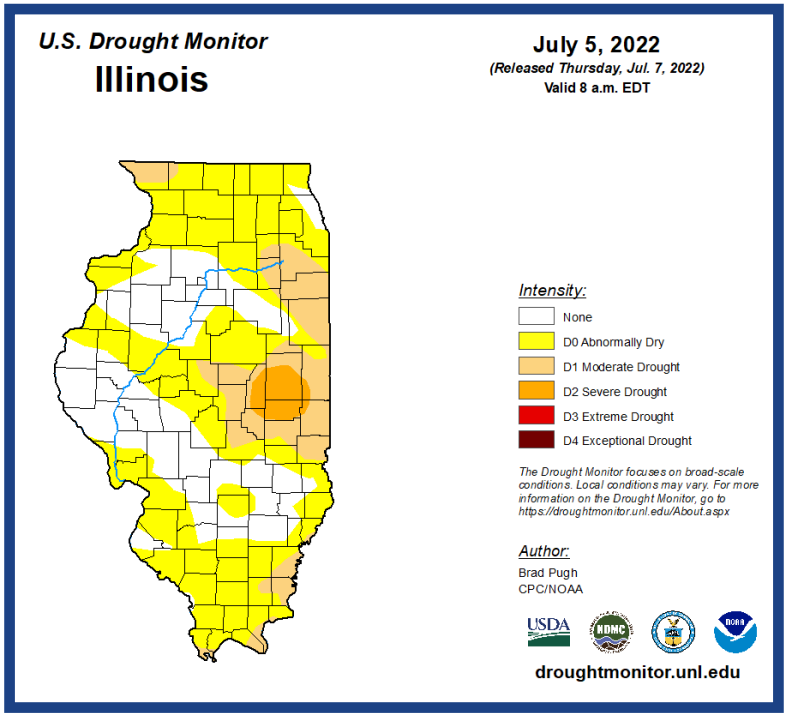
Water is essential for plants. Without water, a plant begins to experience stress, whether reduced growth, cupping leaves or curling, or turning brown. Drought stress also inhibits physiological plant functions, increasing susceptibility to pests and other sources of injury. Drought-stressed plants tend to be more susceptible to climate extremes, insects, plant pathogens, animals, and nutrient deficiencies.

The U.S. Drought Monitor is an excellent resource that provides interactive drought maps and statistics at the national, state, and county levels. You can use this resource to determine how well your area is doing with soil moisture.

https://droughtmonitor.unl.edu/CurrentMap.aspx

https://www.drought.gov/states/illinois

You may or may not be surprised to learn that roughly 68% of Illinois is currently under varying degrees of drought. Most of that area is categorized as abnormally dry, with smaller areas categorized as moderate to severe drought.



Here are some tips to help mitigate drought stress in the landscape if these dry conditions persist or worsen.

1. **Mulch:** A 2-4” deep layer of mulching will help to moderate soil temperatures and conserve soil moisture. Be sure to maintain a small mulch-free space near the bases of plants.
2. **Control Weeds:** Pull any weeds that may compete with desirable plants for moisture, nutrients, and growing space. Mulch will also help control weeds that may compete with desirable plants for soil moisture.
3. **Avoid fertilizing** dormant or drought-stressed plants.
4. **Irrigate.** Newly planted trees, shrubs, and perennials are extremely susceptible to injury from drought. Most trees and shrubs will benefit from one inch of water per week applied in one slow, thorough soaking. It is important to water slowly because this allows the water to soak deeper into the soil.
5. **Let your lawn go dormant.** Turfgrasses have an excellent dormancy mechanism that allows them to tolerate most droughts. However, even dormant turf requires some water. If the drought extends beyond six weeks, it is wise to lightly irrigate your turf with approximately ¼” of water every two weeks.

Maria Turner and Travis Cleveland

New Poison Hemlock Factsheet Available

Poison hemlock is a toxic plant found commonly along roadsides and railroads and in ditches, pastures, and other open areas. Populations in Illinois seem to be on the rise. This new factsheet produced by the University of Illinois Extension provides information on the risks associated with poison hemlock and how to identify and manage it. Access this printable guide via the following web address go.illinois.edu/PoisonHemlock.

Travis Cleveland

Poison Hemlock in Illinois

Poison hemlock (*Conium maculatum*) is an exotic, but established, invasive plant in the carrot family (*Apiaceae*). Like many members of this family, poison hemlock is a biennial plant, meaning that it has a two-year life cycle with first year plants being low-growing, non-flowering rosettes - all leaves emerge from the ground and no central stem is present - and second year plants forming an upright flowering stem. Biennial plants die after setting seed.

Poison hemlock is widespread in Illinois, being reported from at least 78 counties. It prefers sites with full sun and is commonly found in roadsides, railroad rights-of-way, utility corridors, ditches, old fields, pastures, and other open, disturbed areas. Populations in Illinois seem to be on the increase, as indicated by observations and public reports.

Poison hemlock is regulated through the Illinois Exotic Weed Act (525 ILCS 10), and sale, purchase, or transport of poison hemlock is prohibited in Illinois. It can form very dense patches, particularly in areas with some soil disturbance. It is a concern in Illinois because of the serious health risks involved with contact with plants.

Health Risks

All parts of poison hemlock are highly poisonous and ingesting even a small amount can be fatal. Poisoning may also occur via inhalation of smoke when poison hemlock plants are burned or when sap comes into contact with cuts or abrasions on skin. Contact dermatitis is a possibility as well, resulting in rashes and burns, though this is typically more severe with other carrot species, such as wild parsnip or giant hogweed. Recently some extreme cases of rashes from poison hemlock contact have been reported in Illinois. Poison hemlock is also highly poisonous to livestock.

What to do if you think you have been exposed to poison hemlock

If you think you may have been exposed to poison hemlock, particularly through ingestion or inhalation, call 911 or the Illinois Poison Center Helpline (1-800-222-1222) or seek medical assistance.

Reporting

Since poison hemlock is widespread throughout Illinois, direct notification of infestations via phone calls or email is not required. Still, passive reporting of infestations through websites or smartphone apps such as those available on www.eddmaps.org can help track poison hemlock throughout the state.

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Poison Hemlock in Illinois

Illinois Extension

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