EXOTIC, INVASIVE PLANTS IN ILLINOIS HABITATS

AGRICULTURE: Gardens, Row Crops, Orchards, Nurseries...

MAP KEY:
■ = Widespread  ■ = Occasional / Rare  ■ = Absent

For more information on invasive plants visit the Illinois CAPS website at:
www.inhs.uiuc.edu/research/CAPS/
EXOTIC, INVASIVE PLANTS IN ILLINOIS AGRICULTURE

Illinois land is dominated by agriculture. Nearly 80% of the state’s total acreage is used to grow corn and soybeans as well as other commodities such as fruits, vegetables, and livestock. To maintain high productivity, farmers must continually remove pesky plants that compete for the same resources such as light, nutrients, and water; or ones that may cause harm to people or animals.

Common Dayflower (Commelina communis): Perennial. Native to: Asia. Distribution: Throughout Illinois around buildings, and in agricultural fields, roadsides, disturbed areas, and forests. ID Keys: Herbaceous plant up to 3’ tall. Alternately arranged simple leaves, lanceolate or ovate, with entire margins and parallel venation. Flowers have three petals; two large blue on the top half and one small white on the bottom half. Importance: Invasive species in agricultural areas that competes for resources with crops and interrupts their productivity. Management: Hand weeding. Glyphosate herbicide applied when plants are less than 6” tall.

Poison Hemlock (Conium maculatum): Biennial. Native to: Europe, Western Asia, and Northern Africa. Distribution: Fairly common throughout the state in disturbed soils, pastures, meadows, roadsides, pond edges. Prefers rich, gravelly or loamy soils. ID Keys: Herbaceous plant that reaches up to 10’. Produces a basal rosette of leaves the first year and an erect, branched stem the second. Leaves 8 to 16” long, oppositely arranged 3 to 4 times dissected, pinnately compound (somewhat fern-like), shiny with fine serrations along margins. Thick ribbed and hollow purple speckled stems. Leaves have an unpleasant smell when bruised. Importance: Forms dense stands in moist soils; grows large quickly. Phytotoxodermatic (irritates the skin). Management: Wear long sleeves and gloves to avoid contact. Mechanically remove (dig out or till). Repeated mowing is also effective. Herbicides such as 2,4-D and glyphosate can be applied in early spring or late fall.

Kudzu (Pueraria montana): Native to: Asia. Distribution: Prefers open, disturbed areas such as roadsides, right-of-ways, forest edges and old fields. ID Keys: Climbing, deciduous vine capable of reaching lengths of over 100’ long. Leaves are alternate, compound (with three, usually lobed, leaflets), hairy and up to 5.5’ long. Long, purple, fragrant flowers hang, in clusters, in the axils of the leaves. Fruit are brown, hairy, and flat seed pods. Importance: Fast growing plant. Kudzu often grows over, smothers and kills all other vegetation, including trees. Serves as a host for soybean rust. Management: Small infestations can be mowed closely or cultivated repeatedly. In addition, repeatedly cutting the stems near the ground each spring and summer will exhaust the carbohydrate reserves. Cutting and treating the stems with a systemic herbicide late in the season will kill the roots.

Japanese Hops (Humulus japonicas): Annual. Native to: Japan and Eastern Asia. Distribution: Found in isolated areas in the Northern half of the state in disturbed, open areas, abandoned fields. ID Keys: Climbing or trailing vine up to 35’ long. Oppositely arranged simple, leaves with palmate venation, 5 to 9 lobes, and deep V-shaped sinuses. Stems can be hairy with many downward pointed prickles. Importance: Rapid growth rate resulting in a dense, almost solid stand that blocks light. Management: Plants may be pulled before seed set, glyphosate applications may be applied to foliage before flowering. Wild Parsnip (Pastinaca sativa): Perennial. Native to: Europe and Asia. Distribution: Found throughout the state in disturbed soils, pastures, meadows, and roadsides. ID Keys: Herbaceous plant that grows over 4’ tall with a thick taproot. Leaves are alternate, pinnately compound, branched and have saw toothed edges. Yellow umbellate flowers. Importance: Reproduces readily from seed and invades a variety of habitats. Phytotoxodermatic (irritates the skin). Management: Wear long sleeves and gloves to avoid contact. Cut root with shovel below ground. Use brush cutter at flowering prior to seed set. Do not burn. Treat with 1 to 3% glyphosate while in rosette stage.

Star of Bethlehem (Ornithogalum umbelatum): Bulbous perennial. Native to: Europe. Distribution: Throughout Illinois near old gardens, cemeteries, building sites, agricultural fields, roadsides, disturbed areas, and riparian edges. ID Keys: Herbaceous plant about 1’ tall. Simple, tapering leaves with parallel venation and entire margins. White flowers in late spring that last about two weeks. Importance: Invades crop and grazing areas. Occasionally sold as ornamental. Toxic to some animals. Management: Do not plant or use soil with bulbs. Paraquat or 2,4-D herbicide before flowering. Hand-pulling results in regrowth.

Maiden Grass (Miscanthus sinensis): Perennial. Native to: Asia. Distribution: Found along roadsides, ditches, and in riparian areas, and other areas with rich moist soils. ID Keys: Grass with variations in height, color, and texture due to numerous cultivars available. Height ranges from 4 to 12’ tall with long linear foliage that has a distinct white midrib. Featherly golden plumes up to 1’ long held above foliage from summer through winter. Importance: Extremely fast growing species used as an ornamental. Numerous horticultural varieties have been bred not to produce seed. Widely researched for ability to produce cellulosic biomass. Management: Digging out small clumps can be effective if the rhizomes are thoroughly removed. Grazing and mowing will aid in keeping it under control, however, tillage or burning may stimulate new growth. Herbicides, such as glyphosate, can be applied any time of the year but best in the autumn before it directs its energy back into the extensive root system.

Mile-a-Minute Vine (Polygonum perfoliatum): Annual. Native to: India, China, Japan, and East India. Distribution: Prefers disturbed areas, roadsides, nursery crops, orchards, fallow fields, and other moist well drained areas. ID Keys: Herbaceous twining vine with small prickly spines along reddish stems. Triangular shaped leaves typically 1 to 3” wide. Cup-like leafy structures called ‘ocreas’ spaced along stems where flowers give way to shiny blue fruits. Can grow over 20’ long. Importance: Rapidly growing vine that covers and eventually kills underlying vegetation. Management: Close mowing in the spring to prevent flowers. Herbicides, like glyphosate, are effective if applied before seed formation.

Invasive plants have the ability to thrive and spread aggressively outside of their natural range. While some invasive plants tend to be more aggressive than others, it remains equally important to be able to correctly identify and manage the invasive plant before it begins to cause damage to the ecosystem, humans, or animals.

**What can you do?** Know what plants are commonly found in your area and be aware of plants that are increasing in number. Identify them and determine the best strategy for removal. Not all plants can be removed the same way, so be sure to ask questions on the invasive plant you have.

Please visit our website at www.inhs.uiuc.edu/research/CAPS/ or email invasives@inhs.uiuc.edu for more information on invasives.