Illinois Extension







Illinois 4-H

Urban Garden

Weed Guide

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WELCOME



This guide can help children of all ages (classroom students, teachers, parents, &volunteers) learn to identify the most common weeds they're most likely to encounter in urban gardens in Illinois, based on annual surveys performed by student researchers in the 'Bug2School' program.

Our guide will help you learn basic plant structures and traits of the most pesky weeds. Each weed comes with a fun fact and instructions on how to remove it.

With this knowledge you can easily teach yourself, students and volunteers which plants are weeds and know the easiest way eradicate them and keep your garden healthy and beautiful.

Content for this guide was gathered by undergraduate student researchers in the University of Illinois Bug2School Program, and features the most common weeds you'll find in urban gardens throughout central Illinois. Bug2School is supported by USDA NIFA grant # 2022-68018-41926.



CREATE A WEED GUIDE FOR YOUR OWN URBAN GARDEN!

Every garden is different, and is uniquely susceptible to specific weeds. Once you familiarize yourself with the weeds in this guide, observe your garden space and identify your own most common "usual suspects".

Then, select the top 5 easiest-to-observe weeds to create your own guide by adapting our pages!

Share with volunteers and students to teach them the differences between weeds and produce and keep your gardens weed-free!

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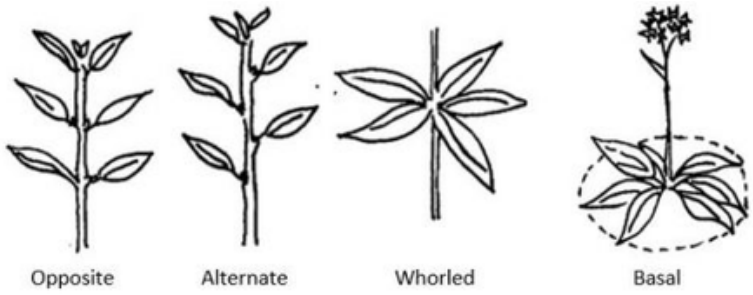
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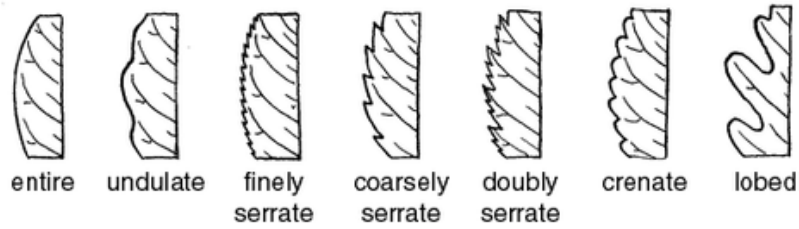
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LEAVES

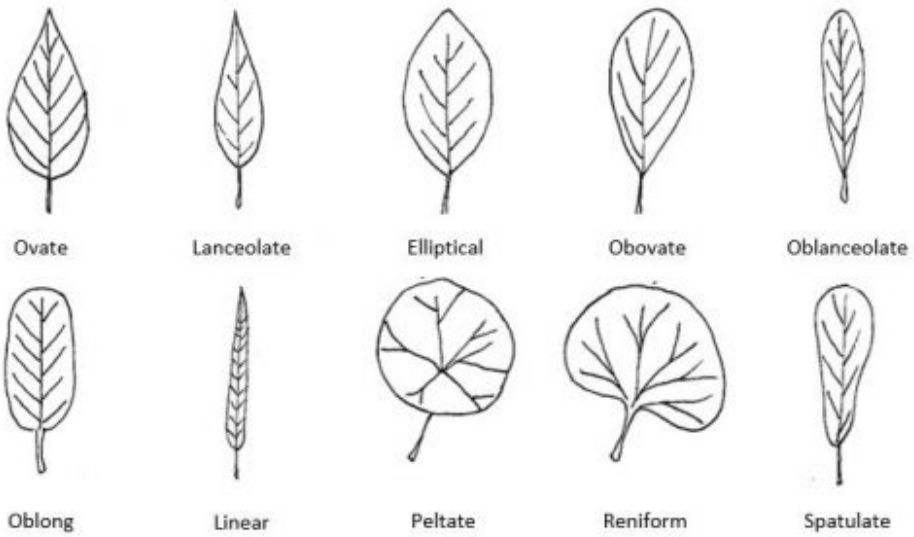
Leaf Arrangement



Leaf Margins



Leaf Shapes



STEMS



Round



Square



Angular



Triangular



Hollow

FLOWERS

Tubular



Spike



Rounded



ROOTS

Taproot



Taproot with Secondary Fibrous Roots



Fibrous Roots



GRASSES(ligules)

What is a ligule?

A ligule is an outgrowth between the blade and and stem–almost like a collar. There are many different types of ligules, and they are a key characteristic in identifying grasses!

Hairy Ligule



Membranous Ligule



Absent Ligule



Large Crabgrass



How to ID

- Long, green climbing, branching leaves from circular center
- Germinates in April and grows initially in clumps before branching out.
- Leaves 1-6 inches long.
- Membranous ‘ligule’ at the base of each leaf, and a hairy ‘leaf sheath’ wraps around the stem



How to Remove

Crabgrass can be removed by hand, but be sure to get the roots and any ‘stolons’ that root from branching stems.



Fun Fact

Crabgrass produces about 150,000 seeds on long, narrow ‘spikelets’ that can be ground into flour.



Foxtail Grass

How to ID

- Upright long (2-10 inches) yellow or green leaf blades
- Seeds are yellow upright fluffy spikes, like a fox's tail!
- Fine hairs on the ligule at the base of each leaf



How to Remove

Foxtail can be removed fairly easily by hand.



Fun Fact

It's best to prevent foxtail from going to seed, but it can be a cute addition to flower bouquets! Its seeds are a common food source for birds.

Barnyard grass



How to ID

- Leaf blades are about 2-6 inches long, and stems often flatten at the base
- Barnyardgrass seed heads are pyramid-shaped with green or purple bead-like seeds
- Barnyard grass has no ligule at the base of each leaf, and leaves have a pale midrib line



How to Remove

Barnyard grass is easiest to remove by hand when plants are small, and before they branch out with lateral roots.

Fun Fact

While it is a problem in the garden, barnyard grass can be decent forage for livestock.

Native Americans used to make porridge out of native barnyardgrass!





Dandelion

How to ID

- Ragged Leaves that grow in a rosette form
- Blooms yellow flowers in mid- to late- spring
- Flowers turn into white seed heads
- Really deep taproot



How to Remove

Dandelions have deep taproots, so the entire root must be pulled out in order to fully remove them, if not they will come back every year due to their perennial nature. Use a trowel to dig out the root.



Fun Fact

Dandelions are edible! You can eat the leaves and flowers raw in salads, cook them into dishes, or make tea with the roots. Try frying those dandelion blossoms!



Thistle

How to ID

- Emerges as a rosette or circle in early growth state
- Leaf margins are irregularly lobed and covered in spines
- Small purple flowers that appear fuzzy
- Very deep root systems



How to Remove

- Wear gloves to protect yourself from prickly thistle leaves!
- Thistle spreads very aggressively. Remove the entire plant by the root (use a trowel or hoe if needed) – thistle root s can get very deep.
- Repeated vigilant removal is required to completely get rid of this plant; because it is perennial, it will come back every year!

Fun Fact

There are native and invasive species of thistle–although invasive, it can provide pollen and nectar sources for beneficial insects.

Purslane



How to ID

- Red, fleshy stems
- Fleshy, oval-shaped glossy leaves
- Purslane grows ‘prostrate’, just a couple inches tall!
- Precious yellow flowers



How to Remove

Purslane has shallow roots and is easy to remove. However, it’s not very competitive with crops and might make a good ‘living mulch’.

Fun Fact

Purslane is delicious and nutritious raw, cooked, or pickled! It’s high in omega-3s. Don’t eat too much of it– it contains oxalic acid, which can cause kidney stones when consumed in high quantities.



Common Lambsquarters



How to ID

- Alternating triangular leaves with ruffled edges
- Silvery tint on new growth, flowers and undersides of leaves– like ‘fairy dust’ :)
- Stems can have purple striping in the leaf ‘armpit’ (but doesn’t always!)

How to Remove

Lambsquarters has a short tap root that is easy to pull up as long as it doesn’t get to big. Larger plants are more difficult to remove.





Fun Fact

Lambsquarters is often called ‘wild spinach’, and is delicious cooked or included in salad!



Pigweed

How to ID

- Can grow up to 6 ft tall with dark green or red leaves that faintly resemble spinach!
- Pigweed often has a bright pink stem
- It grows green or red flower clusters



How to Remove

Pigweed can be removed by hand when plants are small or with a trowel once they get too large.



Fun Fact

Pigweed is delicious when cooked and is even cultivated in some parts of the world! Ornamental varieties are used in garden beds.

Field Bindweed



How to ID

- Perennial vine–spreads by seed and horizontal roots
- Stems are smooth, and it can grow up to 6 feet long
- Arrowhead-shaped leaves
- White or pink trumpet-shaped flowers



How to Remove

The most effective mechanical methods are hoeing and grubbing, where you pull out the entire plant by the root and "grub" out remaining roots in the soil. This plant is perennial and will come back every year if the entire root is not removed!

Fun Fact

Bindweed flowers bloom for only one day–it is a pollen source for nocturnal pollinators.





White Clover

How to ID

- Leaves are rounded and have grayish-green “watermark” at base of leaf
- White flowers with a pink tinge– round flowerhead
- Perennial plant that forms mat-like patches with “runners”



How to Remove

Pull out the entire plant by the root. You can also mulch the area where it used to be, which will hinder its growth.



Fun Fact

White Clover is a legume, meaning that it fixes nitrogen in the soil, providing nitrogen for other plants nearby!



Ground Ivy

How to ID

- Leaves are kidney-shaped with scalloped margins
- Square-shaped stems
- Spreads through stolons
- Flowers are small, bluish-purple, and tubular



How to Remove

Repeated hand removal is necessary to entirely get rid of this plant, it will come back due to its perennial nature. Remove all parts of the roots and shoots to prevent new growth.



Fun Fact

Ground Ivy belongs to the Mint family, and is edible. You can make tea or eat them raw. They have a mild minty aroma and flavor. It can be toxic to horses in large quantities!

Spotted Spurge



How to ID

- Elliptical, dark green leaves with reddish-purple spot arranged opposite of one another.
- Reddish-green stems that spread outward from a shallow taproot
- Pinkish-white flowers, very small and difficult to spot
- When broken, stems emit a milky sap



How to Remove

Can be hand-pulled from the taproot. It is best to pull it out before they reach maturity. Apply mulch over previous growth to hinder seedlings.

Fun Fact

The milky sap excreted from a broken stem can be an irritant to some people. It is also highly toxic to sheep.





Broadleaf plantain

How to ID

- Oval leaves grow from the ground in a rosette
- Leaf veins are parallel giving them a wavy look
- White fibrous roots
- Flowers grow on yellow-white spikes



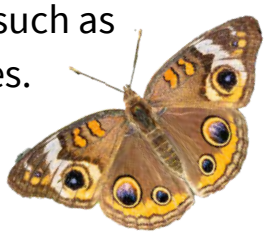
How to Remove

Broadleaf plantain can be removed by hand or with a trowel, but you might prefer to leave it because it is the larval host plant for lovely buckeye butterflies! This perennial plant will come back each year.



Fun Fact

Broadleaf plantain has been used for medicinal purposes such as treating foot injuries.





Curly Dock

How to ID

- Leaves are lance-shaped, wavy margins, and grow mostly at the base of the plant from the taproot.
- Small green/yellow flowers form in clusters at top of plant
- Very distinct triangular seeds
- Leaves growing off stem are alternate.





How to Remove

This perennial plant will need to be entirely dug out with a trowel. Mature plants can be repeatedly cut, as it will eventually run out of energy to regrow.



Fun Fact

Valuable food source for many caterpillar species, but foliage is toxic to some animals. This plant also looks like rhubarb!

Common Burdock



How to ID

- Very large, coarse leaves with wavy margins.
- Stems are hollow and hairy.
- Purple flower heads that eventually form into burrs
- Large, tough taproot
- Looks similar to rhubarb
- First year of growth: leaves form a rosette at the base of the plant.
- Second year of growth: grows taller and branches off



Fun Fact

The roots are edible! It is best to harvest this plant before it starts growing a flower stalk, or else the root may be too tough to eat.

How to Remove

Its large taproot makes removal difficult–use a shovel and dig around the plant as deep as you can. Remove the root if possible to prevent regrowth, as a perrenial plant it will come back next year! To prevent spread, remove seed heads/flowers.





Velvetleaf

How to ID

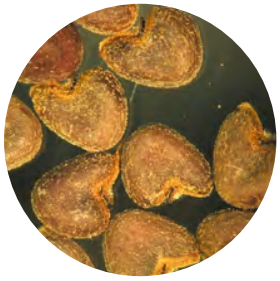
- Leaves are heart-shaped and very soft/hairy.
- Yellow/orange singular flowers
- Distinct fruit– cup-shaped with pointed sections
- Heart-shaped seeds
- Taproot with secondary fibrous roots

How to Remove

It is best to remove this plant when it is a seedling– can be done with hoeing or a trowel. Pull or dig out the plant, getting as much of the root system as possible.









Fun Fact

Seeds can live up to 50 years in soil, making it very difficult to get rid of this plant. It is a persistent weed in corn and soybean fields!

Common Violet



How to ID

- Leaves grow directly from the roots–they are dark green, heart-shaped, and have crenate leaf margins.
- Flowers are typically purple/blue, with two upper petals, two lateral petals, and one lower petal.
- Flowers can come in many different colors.
- Common Violet has a rhizomatous root system.



How to Remove

Use a trowel to dig out the entire plant–especially the rhizomes. This perennial plant will return each year if any rhizomes are left over.



Fun Fact

Historically used to treat the common cold–the flowers and leaves are edible.

Mugwort



How to ID

- Silvery jagged shaped leaves that alternate around the stem
- Extensive rhizome root system
- Can grow to be 4 feet tall
- Small clusters of yellow flowers



How to Remove

Its rhizome root system makes it very difficult to remove. To ensure eradication, remove all sprawling roots under ground in the area of the mugwort.
Never till up the plant as each root piece will create a new plant. This perennial plant will come back viciously every year if not removed.

Fun Fact

Aside from being one of the most pesky weeds, all parts of the mugwort plant are considered medicinal and are commonly used to make tea!

PHOTO ACKNOWLEDGMENTS

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