



# The Seed 2019

**Nebraska Statewide Arboretum**

**Planting Nebraska for healthy people, vibrant communities and a resilient environment**

## Understanding and Managing Landscape Weeds

Justin Evertson, Green Infrastructure Coordinator

It's just human nature to try and put order in the world around us. We see patterns and when those patterns are disrupted, our natural inclination is to "fix" whatever is out of place. This is especially true for the landscapes we plant and manage around us. Whether we're talking about farm fields, golf courses, parks or our own yards, we naturally want things to be neat and tidy. And above all WEED-FREE!

We generally despise weeds, those uninvited plants that regularly show up and disrupt our hard-won order. And we go to great lengths to get rid of them with more than \$10 billion spent on herbicides in the U.S. each year (much of it for farming). In terms of landscape management, weed control is likely the most time-consuming activity undertaken next to lawn mowing. Whether mowing, plucking, cutting, trimming or spraying, we're under constant battle to keep weeds at bay.

Weeds can and do cause serious economic, environmental and emotional harm and weed control will always be an important activity in keeping our landscapes attractive and functional. And yet it is also clear that we often do more harm than good when we adopt



zero-tolerance policies in our efforts to destroy weeds.

When we spray herbicides we often injure non-target plants, when we string-trim we often cause mechanical damage to trees, and when we eliminate all weeds we often decrease soil health and biodiversity. This issue of **The Seed** takes a closer look at weeds in our planted landscapes with the goal of painting them in a more tolerable light. We don't want to leave the impression that weeds are not worthy of serious management efforts. However, we do hope to convey that some weeds are not nearly as problematic as they appear and in fact may be quite beneficial. As the old saying goes, beauty is in the eye of the beholder.

### INSIDE

<b>Seasonal Guide to Weeds</b>	<b>2</b>
<b>Some of My Favorite Weeds</b>	<b>6</b>
<b>Least Favorite Weeds</b>	<b>7</b>
<b>List of Common Weeds</b>	<b>8</b>
<b>Weeds Reveal Soil Types</b>	<b>11</b>
<b>Weed Resources</b>	<b>11</b>
<b>Weeds and Management</b>	<b>12</b>
<b>Eat the Weeds</b>	<b>18</b>



[plantnebraska.org](http://plantnebraska.org)

## Freshen Up

Start the season off right by putting some effort into your landscape after winter recedes. Removing dead material and **sharpening bed edges** are key garden refreshers that put eyes at ease, if you do nothing else. Mid-April is generally the best time to **cut back** last year's stems *before* new growth begins and *after* beneficial insects have moved on from their winter homes. Hedge trimmers can make this task less laborious, especially when dealing with grasses and tall plants. Prune spring-flowering shrubs right after they bloom (if needed).

Spring is when many of the first weeds sprout, struggling to get a grip underground. It's during this stage of emergence that **hand-pulling** is easiest and least invasive. (One tenet of smart gardening is to minimize soil disturbance, since most weeds depend on it to germinate.) **Cover** bare areas with plants, seed or mulch immediately afterward to discourage new weeds.



"Signs of care" like clipped hedges, crisp edges and landscape signage lend a sense of neatness to gardens on the wilder side.

## SPRING WEEDS TO WATCH OUT FOR



### Foxtail

*Setaria spp.*

Early spring pre-emergent is the most effective control. Can be controlled with herbicide but it is more difficult. To remove without using chemical, cut seedheads before they mature and dig deeply to remove the long roots.



### Honeysuckle

*Lonicera maackii*

Seedlings can be dug by hand to minimize infestations. Controlled burns also help control seedlings but must be repeated several times. Two of the most effective herbicide options are triclopyr and glyphosate applied to foliage.



### Garlic Mustard

*Alliaria peiolata*

This noxious weed is a biennial with heart-shaped basal leaves year one and white spring flowers year two. Pull or treat with herbicide as soon as it is identified to avoid infestations. (Nebraska Invasives photo)



### Russian Olive

*Elaeagnus angustifolia*

Most problematic in wet areas. Pull or dig seedlings while they are still small. Bark treatment with triclopyr is effective for small trees (up to 5" diameter). Larger trees need to be manually removed and the stump can be treated.



### Crabgrass

*Digitaria sanguinalis*

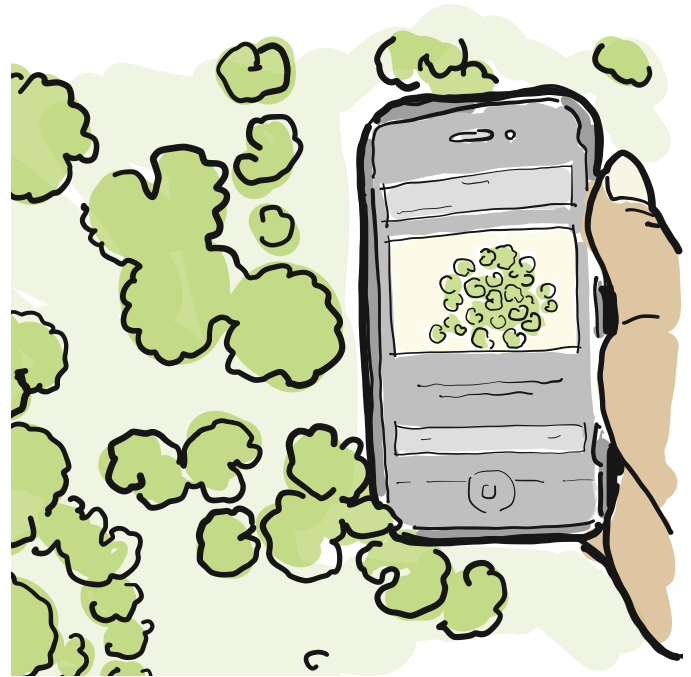
Dig or pull when soil is slightly damp to get as many roots and rhizomes as possible. Large infestations can be treated with glyphosate but several applications are usually necessary.



## Outsmart Weeds

Once your garden greens up, **visit every week or two** to “edit” for a few minutes. Keep in mind that your goal should not be to eliminate every unexpected plant, but to regularly manage the more troublesome ones. As Editor, you can approach new growth—like spreading or reseeding—as something to redirect (rather than abhor).

As for weeding, make a plan before diving in. We advise focusing on **highly visible areas** near walkways and curbs, since these are what people see. Start with any tall weeds and cut them off at the base (instead of pulling) to avoid disturbing the soil. Then move on to **woody seedlings**, which can shade out desirables if left unchecked. Pull them by hand if possible (then cover the spot with mulch), or apply a cut-stump treatment. Next, turn to other known bullies/invasives and cut or spray them **before they set seed**. Weeds in flower are easier to identify and more vulnerable when blooming. Keep in mind it’s easiest to pull weeds when the soil is moist.



Knowing your weeds gives you the upper hand in management. Take an ID book or phone app with you whenever you go out.

## SUMMER WEEDS TO WATCH OUT FOR



**Yellow Sweet Clover**

*Melilotus indicus*

Annual with yellow flowers. Pops up in landscape beds and along walking paths. Pull or spot spray before it seeds. (UC Berkeley photo)



**Canada Thistle**

*Cirsium arvense*

1-4' tall perennial that flowers June-October. Seeds and produces new shoots from roots. Taproot makes pulling difficult but repeated mowing reduces infestations. (Inaturalist photo)



**Siberian Elm**

*Ulmus pumila*

Young seedlings up to 2" diameter can be pulled or dug. Larger trees must be cut and chemically destroyed. Basal bark spraying, cut-stump treatment and girdling can all be effective but may require multiple treatments.



**Maple**

*Acer spp.*

Seeds prolifically in the landscape. Hand-pulling while small is most effective. For larger trees, cut short and treat the fresh stump with herbicide.



**Bindweed**

*Convolvulus arvensis*

Member of the morning glory family with an extensive root system. Difficult to eradicate but repeated pulling, digging or herbicide treatments weaken it. Can be a large problem in new landscapes but doesn't compete well in mature plantings.

## Cover the Ground

Take some time to check your landscape for bare spots after the heat of summer has passed. These holes will be vulnerable to weeds next year unless they are filled, so take advantage of cool weather to plant. **Replace plants that have died**, and install low groundhuggers like sedges and spring bulbs around plants as **“living” mulch**. Cover any exposed soil with 1-2 inches of grass clippings (in a prairie garden) or wood mulch (in a woodland garden) as extra insurance.

In a native garden, late fall is a good time to control exotic cool season weeds (such as brome or fescue) because they remain green long after native plants go dormant—just **carefully spot-spray** with a foliar herbicide. This tactic works in early spring as well. Native gardens benefit from **ecological treatments** like burning, mowing and grazing, so feel free to experiment. Fall is also a good time to control spring annuals by hoeing or with pre-emergent.



Covering the soil with desirable plants can do more than grass clippings or wood mulch to keep weeds away.

## FALL WEEDS TO WATCH OUT FOR



### Birdsfoot Trefoil

*Lotus corniculatus*

Short perennial that flowers all summer. Forms thick mats that choke out other plants. Hand-pulling, repeated cutting and spot spraying are effective. (Weed Alert photo)



### Quackgrass

*Elymus repens*

A cool season grass around 3' tall. Spreads mostly by rhizomes. Repeated pulling and/or chemical treatment will control. (Nebraska Invasives photo)



### Tall Fescue

*Festuca arundinacea*

A perennial grass that is easy to control by digging out clumps. For larger infestations a non-selective herbicide like glyphosate can be effective. Two applications may be needed.



### Mulberry

*Morus alba*

Small mulberry saplings can be dug up, taking care to remove the entire root system or they will readily grow back. Larger mulberry trees can be cut off at the roots between May and September and sprayed with herbicide.



### Smooth Brome

*Bromus inermis*

The extensive roots of this cool season grass help it out-compete other plants. Dig any time or spray in fall after repeated severe freezing to carry the herbicide deep into its root system.

## Leave Plants Standing

Lower temperatures are an opportunity to give attention to the trees and shrubs in your landscape. **Pruning** woodies while they are dormant maximizes time for wound sealing, so take advantage after brushing up on proper techniques at [treesaregood.org](http://treesaregood.org).

As food for critters gets scarce, make sure to **protect young trees** and shrubs from browsing by caging or fencing them above and below snow line. (Species preferred by deer and rabbits include oak, maple, walnut, hackberry, pine, juniper, dogwood, sumac, hawthorn, serviceberry, apple, cherry and plum.)

Winter is an invitation to leave other plants alone, since beneficial insects overwinter in dead leaves and stems. **Wait until spring** to deal with old plant material. As long as the right plants are in the right place, you shouldn't have to worry about watering this season, either.



*Last season's growth, along with deadwood from pruning, serves as insect and bird habitat when left in the garden.*

## WINTER WEEDS TO WATCH OUT FOR



### Chickweed

*Stellaria media*

The best way to handle chickweed is pulling or raking, since the shallow roots make it easy to remove. Pull when soil is slightly damp to get as many roots as possible since it does re-sprout. (wildedible.com photo)



### Downy Brome

*Bromus tectorum*

A winter annual grass that produces seed in June. Control it before seeds drop. Pulling and tilling/hoeing are effective, as well as glyphosate herbicides. (UNL newsroom photo)



### Henbit

*Lamium amplexicaule*

A common annual weed that should be pulled or treated as soon as it greens during warmer winter days or early spring. If pulled or treated early it is fairly easy to control and unlikely to out-compete desired plants.



### Eastern Redcedar

*Juniperus virginiana*

Small seedlings can be controlled by digging or repeated mowing. Larger trees must be cut; although this is time-consuming, it's very effective since trees cut below the lowest branches won't re-sprout.



### Marestalk

*Erigeron canadensis*

Fairly easy to pull or dig in the landscape. Large infestations can be treated with glyphosate; multiple treatments may be necessary.

\*This and several other scanned images were developed by NSA intern Patrick Murphy.



# Some of My Favorite Weeds

Justin Everton, Green Infrastructure Coordinator

In my spare time, I help manage several public landscapes in Waverly, including parts of three parks and three schools, and controlling weeds is by far the most time-consuming activity I undertake. Since I often can't keep up with everything, I've learned over the years to focus on the most problematic weeds and relax about the others. I call it weed triage. I used to believe that if I could snap my fingers and get rid of all the weeds in these landscapes I surely would.

Now, after learning the ecological value of some of these weeds, I'm much more accepting of some of them. When I see a variety of bees on smartweed or monarchs on milkweed, or fritillaries on violets or various birds pursuing insects on these bits of wildness, I'm actually glad that I can't just snap them all away. Another lesson I've learned over the years is that it's just not worth the unintended harm to trees or other landscape plants we often inflict in the name of weed control.

Here are a few weeds I tolerate or sometimes make room for. Generally speaking, if a plant is native to our area, I'm prone to be more tolerant of it as it very likely benefits insects, birds and other wildlife.

🍃 **Beggarticks** (*Bidens*) is a native annual with fern-like compound leaves and dainty yellow flowers in late summer. It's a clean, attractive plant that helps sustain numerous insects and would probably be thought of as a good garden plant if it's barbed, trident-shaped seeds didn't stick so easily to clothing.

🍃 **Smartweed** (*Polygonum*) is a native annual that helps sustain a wide variety of bees, butterflies and other insects. Because of its abundance and easy-to-grow nature, it's not much appreciated. Let's call it a native wildflower and start enjoying it more.

🍃 **Violets** (*Viola*) are critical food plants for two of our most beautiful native butterflies, the regal fritillary and the spangled fritillary. With their pretty flowers and small stature, violets should be welcomed to the landscape, not sprayed away.

🍃 **White clover** (*Trifolium repens*) is a mowable little plant that makes a great groundcover and helps add nitrogen to the soil, reducing the need for fertilizers. It also helps sustain a variety of pollinators. Don't spray it, embrace it.

🍃 **Stinging Nettles** (*Urtica dioica*) can be quite painful when they come into contact with our bare skin, but they're also one of the most important plants for sustaining a variety of charismatic butterflies like painted ladies, red admirals and mourning cloaks. Young nettle greens also make a tasty and nutritious food when properly cooked. If you have stinging nettles on your property, consider that a good thing.

🍃 **Common milkweed** (*Asclepias*) is not the most attractive plant with its tall habit and large leaves which are often disfigured by aphids in mid-summer. However, due to its importance in sustaining the monarch butterfly, we should allow this plant to show up and do its thing here and there.

🍃 **Honeyvine milkweed** (*Cynanchum laeve*) is a native perennial vine related to other milkweeds that can weave its way to the top of trees, shrubs and perennials, making it an annoyance. However, it rarely causes serious harm and it too is a host of monarchs and other important insects.

🍃 **Virginia Creeper** (*Parthenocissus quinquefolia*) is a native, woody vine that can sprawl and climb to amazing heights. It can be problematic when overtaking healthy trees and shrubs, but it also makes a great groundcover, has good fall color and hosts numerous insects. Let some of it be.



This column from top:  
Smartweed  
Beggarticks  
Stinging nettle  
Violets  
Second column:  
Honeyvine and Virginia creeper (with vinca)





# My Least Favorite Weeds

Justin Evertson, Green Infrastructure Coordinator

Of course, many uninvited plants are out of place and unwelcome and I work hard at getting rid of them. I try to pull them wherever I can, especially when the plants are small and the soil is moist. But I use other tools as well, such as tile spades, string trimmers, mowers and an occasional herbicide, carefully applied. Pre-emergent herbicides can be especially effective in preventing germination and slowing the spread of weeds.

Here are a few weeds I regularly do battle with:

## Bedstraw

(*Galium aparine*) is a native, sprawling annual weed that can weave its way up and into about anything, including shrubs. It was sometimes used as a filler in pioneer mattresses, thus its common name.



Its tiny, round seeds stick easily to clothing and fur, helping the plant travel far and wide. In Waverly, we pull out truckloads of bedstraw from shrub beds nearly every year. One good thing is the plant dies back quickly after seeding and thus become less noticeable by summer.

## Poison Hemlock

(*Conium maculatum*) is an introduced biennial from Europe and, as its name implies, is quite poisonous. It's parsley-like leaves reveal it as a member of the carrot family and it can grow to 5' tall, coming on fast in the early spring.



## Prickly lettuce

(*Lactuca serriola*). Imported from Europe, this relative of garden lettuce not only looks bad (it grows 3-4' tall) but also has spiny stems and leaves that can leave slivers behind if pulled by bare hands.



**Smooth Brome** (*Bromus inermis*). I despise this cool season grass introduced from Europe. Its ability to spread by underground rhizomes allows it to create



a dense sod. It often weaves its way into landscape beds, snuggling up to more desirable plants and making it hard to deal with. Smooth brome is especially problematic in prairie-themed plantings where it can out-compete native warm season grasses.

**Crabgrass** (*Digitaria*). Various crabgrass species can be pests in the lawn



and garden. They come on quickly in mid-summer and can overtake new plantings in a hurry. And they really are ugly.

**Marestail or Horseweed** (*Erigeron canadensis*) is a native annual common anywhere there is open ground and often prominent in new prairie seedlings where it will fade over time. Its tall stature and resistance to herbicides makes it problematic in landscape beds.



**Pokeweed** (*Phytolacca americana*) likes shade and can grow to 5' tall or taller with large leaves, purple stems and bright purple berries in late summer. Although young leaves are edible with proper cooking, the plant becomes poisonous with age. (Photos below of young plant and with mature purple berries.)



**Mulberry tree seedlings** (*Morus alba*) rival redcedar for their ability to come up about anywhere a bird poops out its seeds. It's especially problematic coming up in tree and shrub beds, often weaving its way out of the dense shade of evergreens. If humans disappeared tomorrow, redcedar and mulberry would take over eastern Nebraska.

# List of Common Weeds

Below is an alphabetical list of some of the most frequently used common names for weeds. The plants considered the **most troublesome are indicated in brown** here and throughout the publication; **least troublesome and/or beneficial are noted in green**. More information about management can be found on the pages noted in the last column; pages with photo of the plant are in boldface.

All of these “weeds” are Perennial unless noted as Annual or Biennial plants, which are best treated by slowing or stopping seed production through pulling, mechanical means or herbicides. Pre-emergent herbicides are especially good for problematic annuals like henbit, pennycress, bedstraw, downy brome, etc. Breaking the cycle for a year or two is often sufficient so that herbicides need not be used every year.

Many of the most common plants, and particularly weeds, have a variety of common names. And some of those common names are associated with two or more plants, making their identification and management more confusing. (Maybe this is an idea for a new kind of arboretum, one with signage for weeds as well as ornamental plants?)

COMMON NAME	SCIENTIFIC NAME. When several species are included, only the genus is listed.	MISCELLANEOUS notes and tips.	PAGE MENTIONS. Pages with photo are in boldface.
<b>Bedstraw (catchweed, cleavers)</b>	<i>Galium aparine</i>	Native annual; edible; vining habit; velcro-like stickiness	<b>7, 12, 15, 17, 19</b>
<b>Beggarticks</b>	<i>Bidens bipinnata</i>	Native; attractive plant; good for pollinators; annoying barbed seeds.	<b>6</b>
<b>Bindweed</b>	<i>Convolvulus arvensis</i>	Introduced; invasive	<b>3, 11, 12, 13, 14, 17</b>
<b>Birdsfoot trefoil</b>	<i>Lotus corniculatus</i>	Introduced; beneficial in a lawn mix; low-growing, drought-tolerant, yellow flowers, legume	<b>4, 17</b>
<b>Black medic</b>	<i>Medicago lupulina</i>	Introduced annual; yellow-flowered legume; related to alfalfa	
<b>Buckwheat</b>	<i>Polygonum convolvulus</i>	Introduced annual; twining/sprawling; similar to bindweed or honeyvine milkweed	
<b>Burdock</b>	<i>Arctium minus</i>	Introduced; edible biennial with large basal leaves and velcro-like seed pods	13, 19
<b>Burnweed</b>	<i>Erechtites hieracifolia</i>	Native annual; common to waste areas; similar in look to marestail	
<b>Buttonweed</b>	<i>Abutilon theophrasti</i>	Introduced annual; large, velvety, heart-shaped leaves	
<b>Catchweed (see bedstraw)</b>			
<b>Chickweed</b>	<i>Stellaria media</i>	Introduced annual; low, sprawling; edible.	<b>5, 12</b>
<b>Cleavers (see bedstraw)</b>			
<b>Clover, white</b>	<i>Trifolium repens</i>	Introduced; beneficial in a lawn mix; mowable and nitrogen fixing	6, 12, 13, 14, 15,
<b>Clover, yellow sweet</b>	<i>Melilotus officinalis</i>	Introduced biennial; deeply rooted; often used in conservation	<b>3, 17</b>
<b>Creeping charlie (ground ivy)</b>	<i>Glechoma hederacea</i>	Invasive; spicy fragrance; low, spreading, trailing stems	12, 15, 16, 17, <b>18</b>
<b>Crown vetch</b>	<i>Securigera varia</i>	Introduced; invasive; vining/sprawling habit.	17
<b>Cucumber, bur</b>	<i>Sicyos angulatus</i>	Native annual vine; similar to wild cucumber but small fruits in clusters	
<b>Cucumber, wild</b>	<i>Echnocystis lobata</i>	Native annual vine; fast-growing vine that can cover trees and shrubs	
<b>Dandelion</b>	<i>Taraxacum officinale</i>	Introduced edible; mostly an aesthetic rather than ecologic concern	<b>1, 12, 13, 14, 15, 16, 18</b>
<b>Dayflower, Asiatic</b>	<i>Commelina communis</i>	Introduced annual; edible; twining habit; blue flower	12, <b>19</b>
<b>Dock, curly or sour</b>	<i>Rumex crispus</i>	Native edible; big plant and foliage; unattractive flower stalks	7, 12, 18, <b>19</b>
<b>Dock, smooth</b>	<i>Rumex altissimys</i>	Native edible; similar to curly dock but with smaller, smooth leaves	7
<b>Four o'clock, wild</b>	<i>Mirabilis nyctaginea</i>	Native; pink/red-purple flowers on tall stems; deep taproot	
<b>Garlic Mustard</b>	<i>Alliaria petiolata</i>	Introduced biennial; invasive; garlic odor; aggressive in woodlands/shade	<b>2, 17, 19</b>
<b>Ground ivy (see creeping charlie)</b>			



Henbit	<i>Lamium amplexicaule</i>	Introduced; blue flower; low habit; winter annual	5, 12, 13, 17
Honeyvine milkweed	<i>Cynanchum laeve</i>	Native, vining, related to milkweed	6
Horseweed (see marestail)			
Knapweed	<i>Rhaponticum repens</i>	Introduced; knapweeds are invasive and noxious weeds	
Knotweed, common	<i>Polygonum arenastrum</i>	Native annual; quick spreader; common in open fields, compacted soils	
Knotweed, Japanese	<i>Reynoutria japonica</i>	Introduced annual; tall growing; invasive	13
Kochia	<i>Kochia scoparia</i>	Introduced annual; especially problematic in western NE	14, 17
Lambsquarter	<i>Chenopodium album</i>	Introduced annual; edible	12, 13, 18
Lettuce, blue	<i>Lactuca oblongifolia</i>	Native; similar to prickly lettuce; blue flowers	
Lettuce, prickly	<i>Lactuca serriola</i>	Introduced annual; related to garden lettuce; yellow flower	7
Mallow, common	<i>Malva neglecta</i>	Introduced annual; sometimes biennial; low, trailing	
Marestail	<i>Conyza canadensis</i>	Native annual; marestail-like flower panicle on a leafy stem	5, 7
Milkweed, common	<i>Asclepias</i>	Native edible; great for butterflies; milky sap	6, 12, 15, 19
Mulberry weed	<i>Fatoua villosa</i>	Introduced annual; invasive; looks like young mulberry; prefers shade	14
Nettle, stinging	<i>Urtica dioica</i>	Introduced; edible; woodland plant prefers shade; upright habit	6, 18
Nightshade	<i>Solanum spp</i>	Native; related to tomatoes;	
Palmer amaranth	<i>Amaranthus palmeri</i>	Native to SW US but quickly invading farm fields	
Pennycress	<i>Thlaspi arvense</i>	Introduced, winter annual	
Phragmites	<i>Phragmites australis</i>	Introduced wetland invader; noxious weed	13, 20
Pigweed	<i>Amaranthus retroflexus</i>	Native annual; large plant, easy to hoe	
Pineapple weed (wild chamomile)	<i>Matricaria discoidea</i>	Introduced; edible; noticeable pineapple or chamomile fragrance when mowed	13
Plantain	<i>Plantago</i>	Introduced; edible; all are low-growing but deeply rooted	15, 19
Poison hemlock	<i>Conium maculatum</i>	Introduced biennial; invasive; all parts poisonous; parsley-like leaves;	7, 12
Pokeweed	<i>Phytolacca americana</i>	Native; grows tall, roots are poisonous; prominent black fruits	7
Puncturevine	<i>Tribulus terrestris</i>	Introduced annual; sprawling; glossy/succulent leaves; painfully thorny fruit	17
Purslane	<i>Portulaca oleracea</i>	Introduced annual; edible; succulent sprawling foliage	16, 18
Queen Anne's lace (wild carrot)	<i>Daucus carota</i>	Introduced; large growing with prominent white flower umbels	
Ragweed, common	<i>Ambrosia artemisiifolia</i>	Native annual; major allergy plant; important for wildlife	11
Ragweed, giant	<i>Ambrosia trifida</i>	Native annual; pollen is the primary culprit of fall allergies	
Ragweed, western	<i>Ambrosia psilostachya</i>	Native perennial; pollen is the primary culprit of fall allergies	
Rush, scouring	<i>Equisetum hyemale</i>	Native; good in wet areas but indicative of poor drainage	13
Sericea lespedeza	<i>Lespedeza cuneata</i>	Introduced; invasive; tall growing and very aggressive noxious weed	
Smartweed	<i>Polygonum</i>	Native; distinctive pink to white cylindrical flower racemes; good for pollinators	6
Sorrel	<i>Rumex acetosa</i>	Introduced; edible	12
Sowthistle	<i>Sonchus asper</i>	Introduced; invasive; tall stems with yellow flowers, fluffy seedheads	
Spanish needles (see beggarticks)			
Speedwell, slender	<i>Veronica filliformis</i>	Introduced annual; low, sprawling; henbit-like; small blue flowers	12

Continued on next page

Spreading orach	<i>Atriplex patula</i>	Native; similar in appearance and habit to lambsquarter	
Spurge, leafy	<i>Euphorbia virgata</i>	Introduced annual; invasive; green-yellow flowers	7, 13, 17
Spurge, spotted or prostrate	<i>Euphorbia maculata</i>	Native annual; low, sprawling:	7
Strawberry, false or mock	<i>Duchesnea/ indica</i>	Introduced; similar in appearance and habit to strawberry plants	12
Sunflower, annual	<i>Helianthus annuus</i>	Native; large growing; easy to pull; good for birds	13, 15
Tallhedge mustard	<i>Sisymbrium loeselii</i>	Introduced; common problem in farm fields and waste areas	12
Thistle, Canada	<i>Cirsium arvense</i>	Introduced; invasive; should be aggressively removed	3, 17
Thistle, musk	<i>Carduus nutans</i>	Introduced biennial; invasive; noxious, very aggressive; must be removed.	
Velvetleaf (see buttonweed)			
Violet	<i>Viola pratincola/sororia</i>	Native; edible; beneficial in lawns; distinctive blue flower spikes on upright plant	1, 6, 13, 14, 15, 19
Wild carrot (see Queen Anne's lace)			
Wild chamomile (see pineapple weed)			
<b>Weedy Grasses</b>			
Bentgrass, creeping	<i>Agrostis stolonifera</i>	Introduced; commonly used on golf courses	13
Bluegrass, Kentucky	<i>Poa pratensis</i>	Introduced; can creep quickly into landscape beds	11
Bromegrass, downy	<i>Bromus tectorum</i>	Introduced Annual; invasive; pull or mow before seeding	5, 16
Bromegrass, smooth	<i>Bromus inermis</i>	Introduced Annual; invasive; common pasture/roadside grass	4, 7, 11, 13, 17
Cheatgrass (see downy bromegrass)			
Crabgrass	<i>Digitaria sanguinalis</i>	Introduced; invasive	2, 7, 12, 13, 16, 17
Fescue, tall	<i>Tall - Festuca arundinacea</i>	Introduced; can creep into landscape beds	4, 13
Foxtail, common	<i>Setaria viridis</i>	Introduced; Annual; not a big problem	2, 16, 17
Nimblewill	<i>Muehlenbergia screeberi</i>	Introduced	13
Nutsedge	<i>Cyperus esculentus</i>	Introduced; worse on poorly drained sites	13
Quackgrass	<i>Elymus repens</i>	Introduced	4, 16, 17
Reed canarygrass	<i>Phalaris arundinacea</i>	Introduced; often in ditches and wet areas	13, 17
Sandbur	<i>Cenchrus longispinus</i>	Native; sprawling plant with barbed seeds; prefers sand	
Windmill Grass	<i>Chloris verticillata</i>	Native; low sprawling habit	
<b>Weedy Woody Plants</b>			
Ash, green	<i>Fraxinus pennsylvanica</i>	Native; female plants are heavy seed producers	
Buckthorn, common	<i>Rhamnus cathartica</i>	Introduced; invasive pest in woodlands	14
Coralberry/Snowberry/ Buckbrush	<i>Symphoricarpos</i>	Native; good for birds and wildlife	
Elm, Siberian	<i>Ulmus pumila</i>	Introduced; invasive; prolific seeder	3, 17
Hackberry	<i>Celtis occidentalis</i>	Native; birds spread seeds but good for wildlife	
Honeylocust	<i>Gleditsia triacanthos</i>	Native; especially a problem where seed pods drop	12
Honeysuckle	<i>Lonicera</i>	Introduced; invasive vine/shrub; especially problematic in woodlands	2, 14
Maple, silver	<i>Acer saccharinum</i>	Native; can put out bushels of seeds each spring	3
Mulberry	<i>Morus alba</i>	Introduced; invasive; tasty fruit birds spread everywhere	4, 7, 12
Olive, autumn	<i>Elaeagnus umbellata</i>	Introduced; invasive; large shrub/tree; silver foliage	
Olive, Russian	<i>Elaeagnus angustifolia</i>	Introduced; invasive on waterways	2
Pear, ornamental	<i>Pyrus calleryana</i>	Introduced; invasive; should no longer be planted	
Poison ivy	<i>Toxicodendron rydbergii</i>	Native vine; toxicity makes it difficult to control	
Redcedar, eastern	<i>Juniperus virginiana</i>	Native; aggressive; grows anywhere/everywhere	5, 13, 14
Tree-of-heaven	<i>Ailanthus altissima</i>	Introduced; invasive; sumac-like leaves; suckering/colony-forming	17
Trumpet vine	<i>Campsis radicans</i>	Native vine that hummingbirds love	14, 15
Winter creeper	<i>Euonymus fortunei 'Colorata'</i>	Introduced; prefers shade; should not be planted	14



# What kind of soil do you have? Ask the weeds.

Below is a list of soil types with the weeds that tend to be associated with them. This information was taken from Gardening Know How—Common Garden Weeds: Identifying Weeds by Soil Type, <https://www.gardeningknowhow.com/lawn-care/lgen/what-the-weeds-in-your-lawn-are-telling-you.htm>.

## Poor Soil, Low Fertility

Clover  
Crabgrass  
Dandelion  
Mullein  
Plantain  
Queen Anne's lace  
Ragweed  
Sorrel  
Thistle  
Yarrow

## Poorly Drained Soil

Bindweed  
Bluegrass  
Chickweed  
Goosegrass  
Ground ivy (creeping charlie)  
Knotweed  
Moss  
Sedge  
Speedwell  
Spotted spurge  
Violet

## Overly Dry Soil

Carpetweed  
Mustard weed  
Russian thistle  
Speedwell  
Yarrow

## Acidic Soil (often a result of insufficient oxygen)

Hawkweed  
Plantain  
Sorrel

## Alkaline Soil

Chickweed  
Chicory  
Queen Anne's lace  
Spotted spurge

## Heavy, Compacted Clay

Bermuda grass  
Horsenettle  
Knotweed  
Morning glory  
Mouse-ear chickweed  
Pennycress  
Plantain  
Quackgrass

## Fertile Soil

Chickweed  
Chicory  
Foxtail  
Horehound  
Lambsquarter  
Mallow  
Plantain  
Thistle



## Weed References and Resources

- 🍃 Managing Turf and Landscape Weeds, <http://extensionpublications.unl.edu/assets/pdf/ec1269.pdf>
- 🍃 Weed guide primarily aimed at farmers, but also has photos and lists of noxious weeds, etc., <https://lancaster.unl.edu/ag/crops/weed.shtml>
- 🍃 Weed problems in lawns, <https://byf.unl.edu/turf>
- 🍃 Weeds in croplands, <https://cropwatch.unl.edu/2018/nebraskas-top-weed-problems-and-most-common-herbicides>
- 🍃 The **2019 Guide to Weed Management**, primarily aimed at farmers and ranchers, <https://marketplace.unl.edu/extension/ec130.html>
- 🍃 Mulching for weed control, <http://extensionpubs.unl.edu/publication/9000016361444/mulching-the-landscape/>



“We grow morning glory for its cerulean blue, and because it is a reminder of the Mediterranean, swarming there over everyone’s balcony or terrace; we wage war on bindweed, that most tenacious and ineradicable perennial ‘weed’, but actually, to look at, convolvulus is just a small white form of morning glory, and, if annual and more genteel in behavior, we would probably cherish it.” Penelope Lively



# Worst Weeds?



bindweed

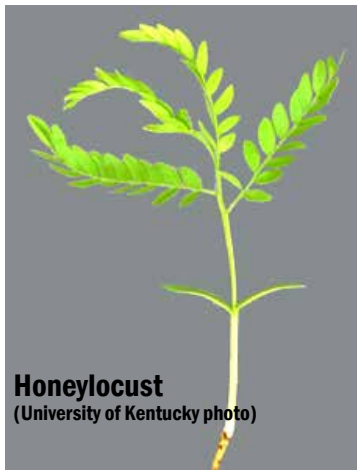
## Managers of 1-100 acre landscapes offer tips, humor, sympathy

### Steven Schafer, Aldersgate Gardens Curator, Lincoln, NE

My worst weed depends on which of several hats I wear. As a homeowner where I've limited the amount of exposed soil, maintain a healthy lawn and don't let weeds go to seed, **bindweed** is the hardest to eliminate. My control method is to starve the roots by pulling out the vines time after time.

As a volunteer with The Nature Conservancy, controlling non-native **thistle**, **poison hemlock**, **Siberian elm**, **thorny honeylocust** and **cottonwood** are priorities. Digging is the primary method of weed control or, for saplings, basal bark treatment with a herbicide.

At Aldersgate Gardens in Lincoln our control methods include applying pre-emergent, spot-spraying with a broadleaf herbicide and improving turf health with a winter fertilizer, mulching and higher mower height. As time and resources permit, we are converting turfgrass to landscaped areas. A 3" layer of mulch has been essential and largely successful for weed control where mulching is



**Honeylocust**  
(University of Kentucky photo)

feasible. In areas where we're trying to establish buffalograss and blue grama, controlling weeds is problematic. Hand-pulling is the most effective method but it's very time-consuming. In retrospect, better preparation of the planting beds and earlier application of a pre-emergent would have been helpful. Weed control is a very high priority, since this is in a residential area. We want to be good neighbors. Worry-free weeds: **white clover**

### Bob Feurer, Arboretum Curator, North Bend, NE

I would love to control weeds without chemicals but, in a large site like the North Bend School and Arboretum, the volume makes that almost impossible.

**Mulberry trees** are the most pernicious weeds in the arboretum. If you cut them off, you **MUST** treat the cut stump or they grow back. As far as weeds, **henbit**, **bedstraw** and **Asiatic dayflower** are on the top of my hit list.

Worry-free weeds: **lambquarter**; and I used to spray common **milkweed** but now, thinking about monarchs, I treat it like my best ornamentals.



**Henbit**  
(Wikipedia photo)

### Jan Riggerbach, Garden Columnist, Omaha, NE

My most troublesome weeds are the ones that go to seed so quickly that I can't prevent them from dropping to the ground. **Yellow wood sorrel**, for example. And also winter annuals like **chickweed** and **speedwell**, which bloom and set seed while I'm busy with spring planting. Also difficult to keep up with are **ground ivy** and **mock strawberry**, which spread quickly along the ground, rooting along the way. Thankfully I do find hand-weeding very therapeutic. I'm not a fan of pre-emergent herbicides because I want my native plants to seed themselves around, creating a more natural-looking landscape. I don't want to apply anything that would stop those volunteer seeds from germinating.

Worry-free weeds: **dandelions**. The flowers are an important early pollen source, and—in my yard—rabbits eat most of the foliage down to stubs. I just try to pick off most of the spent flowers before the plants have a chance to seed themselves around promiscuously.

**Clover**. I'm old enough to remember when clover in the grass was always welcome for making flower necklaces for the children, for providing food for bees and for manufacturing nitrogen in the soil. I'm happy that there is a resurgence in welcoming clover into the lawn, but not everyone has gotten the word yet.

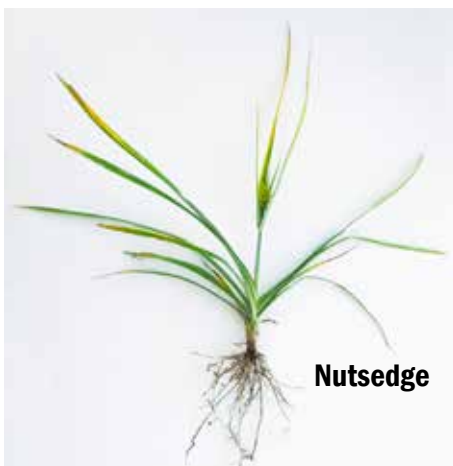
More broadly, I want to stress the value of leaving leaf litter in place and planting more groundcovers because, if we don't cover the ground between plants with something desirable, nature will do the job with more weeds.



**Greg Weber, retired conservationist,  
Lincoln, NE**

In my home lawn/landscape my most troublesome weeds through the years have been **prostrate knotweed**, **yellow nutsedge**, **henbit**, **ground ivy**, **wild violet**, **prostrate/spotted spurge**, **crabgrass**, **foxtail**, **bindweed** and **nimblewill**. And, where bluegrass and/or tall fescue are desired, **creeping red fescue** and **bentgrass**. In larger landscapes such as our city parks and acreages where native grasses and forbs have been seeded, the worst ones are invasive plants such as volunteer tree seedlings, **smooth bromegrass**, **bluegrass**, **tall thistle**, **dock**, **leafy spurge** and, to a lesser extent, **redcedar**. Also, **phragmites**, **scouring rush** and **reed canarygrass** can severely impact wetland functions and values in wetter areas. The 12 state listed noxious weed species and two for Lancaster County should have a zero tolerance attitude, even the ones such as **purple loosteirife** and **salt cedar** which have wonderful ornamental characteristics.

In the home landscape hand removal may work for small infestations of some species such as **prostrate knotweed**, yellow **nutsedge**, **prostrate/spotted spurge** and **dandelion**, but the key is to be persistent. For example, when you pull a sprig of yellow **nutsedge** 10 or more little ones will come to the funeral. Being persistent with hand removal will reduce the pesticide load that is in the environment and will eventually starve the plant. For larger infestations of these and most other weeds, timely applications of pre- and post-emergent herbicides may be the best option. Understanding the life cycle and growth characteristics of the weed you are after is important. Many times weed control is attempted when the weeds become obvious, which may not



be the optimal time for control measures. Also, keeping a healthy vigorous turf inhibits some weeds from getting a foothold.

In larger landscapes with native plant communities like acreages or city parks, a combination of cultural and chemical control measures is probably needed. For most volunteer tree species other than **redcedar**, cutting and chemically treating the stumps may be the only option for preserving the integrity of other desirable forb species in the vicinity. For **redcedar** a simple whack with a corn knife or shovel below any green growth will control it.

Worry-free weeds: One person's weed is another person's salad. I know folks who forage for plants such as **pineapple weed (chamomile)**, **curled dock**, **burdock**, and **lambsquarter**. There are other folks who let their yards go and harvest whatever becomes available though this can cause conflicts with city weed control ordinances as well as neighborly relations. Recently I read an article about pollinator-friendly residential yards that suggested leaving plants like **white** and **red clover** and **wild violets** in our lawns. These plants are relatively harmless and provide pollinator habitat. **Mallow** is another weed that can crop up here and there around the yard fringes and is a pollinator species. On larger landscapes there are many species that exhibit significant environmental benefits but have been aggressively controlled in the past. **Common milkweed**, **ironweed** and **sunflower** are some examples. **Tall thistle** can be aggressive but is a native thistle that provides late season pollinator habitat and is desirable as long as the population does not get out of control.



Landscape recommendations: We spend untold amounts of money applying millions of pounds of fertilizers and pesticides each year to our residential areas in order to maintain a manicured landscape (I plead guilty). Is it time consider other alternatives such as xeriscape concepts for water conservation, or encourage the use of natural landscapes and native gardening using species that are more adapted to the prairie environment? The benefits of applying these concepts would be reduced fertilizer and pesticide use as well as water conservation. The difficulty with making this type of transition is being the first in the neighborhood to try it. A weed is simply a plant that is in the wrong place at the wrong time. Think of a corn plant in a soybean field. To a certain extent I think we need to take a deep breath and learn to live and let live with a few minor weeds here and there and find a balance with folks who want perfectly manicured landscapes and those who prefer the chaos of successional plant development.

We need to be informed. UNL extension has online publications for these subjects and programs like Backyard Farmer. The staff at reputable local garden centers is also a good source of information. Local offices of the USDA Natural Resources Conservation Service and many other agencies like

Nebraska Game and Parks Commission, Nebraska Statewide Arboretum, Pheasants Forever and Nebraska Forest Service can also be tapped for information and expertise dealing with native vegetation management on larger acreages or landscapes (more on page 11).

### Kim Todd, UNL Associate Professor & Extension Landscape Specialist

I think the most troublesome weeds fall into two categories: woody shrubs and trees that are either on the noxious weed list, or are good candidates as invasive or certainly aggressive species; and herbaceous and vining plants that seed or spread by rhizomes into managed landscapes. My reasoning? The birds spread the shrubs, and people often don't ask us for identification until they have attained some size and are established—and then they often want to keep them. **Amur honeysuckle**, **European buckthorn** and **eastern redcedar** top my weedy woody list.

Annual **mulberry weed** and broadleaf evergreen **wintercreeper** are threatening to take over my landscape beds, turf and woodland. It's important to start with the education needed for proper identification, which should include an understanding about invasive species. Dig up the woodies when they are small. Mowing works on many, but take care to get the growing point on cedar or it will simply spread and become shrublike. **Mulberry weed** spreads its seed everywhere, including into the crowns of other perennial plants. Hoe it, pull it and repeat; I may have to resort to a pre-emergent herbicide. As for **wintercreeper**, pull it when it is young



or at least still prostrate, taking care to detach the plants that root from the leaf nodes. If it escapes and goes vertical, cut the stems to keep it from becoming three-dimensional and producing seed.

**Relatively benign weeds.** **Clover** (white or Dutch) and **wild violets** are not weeds to me. The clover colonizes areas of poor soil and thin turf; the violets form a dense groundcover in areas that are shady, compacted and dry.

**Tips to simplify management.** Relax. Let it be. Stop striving for perfection in a living landscape. Diversify your landscape; the imperfections are far less noticeable if the composition is a rich tapestry of forms, textures and colors instead of a monoculture. Encourage the growth of desirable plants to crowd out weeds by amending the soil, using compost and leaf litter as mulch. Determine what your threshold of acceptance is, and raise that a bit. And weigh the implications of any actions you are considering, resorting to chemical control only as a last resort.

### Annie Folck, City Engineer Gering, NE

Worst weed—**bindweed**! Hate it, hate it, hate it. I don't like to use spray, but I will for this one because it is so difficult to get rid of (or even keep at bay sometimes). **Cheatgrass** is another one that can be extremely troublesome, but can be controlled fairly well with pre-emergent.

Worry-free weeds: If **bindweed** is my most hated weed, **kochia** is my favorite. It's easy to identify, easy to pull when it is young (although it can become more difficult if left too long). I also have no issue with **dandelions**, and actually like to have a little **clover** in my grass.

Out here, keeping everything watered appropriately can be a challenge. Watering needs vary so much depending on the weather and, while I mostly try to plant things that don't need supplemental irrigation, after several weeks without rain, pretty much everything is going to need a drink. But it can also be challenging to make sure that we aren't over-irrigating some of our dry-loving plants. Chemical drift is another challenge. A windbreak we planted about five years ago would look a lot better if it hadn't been sprayed a couple of times. Fortunately the shrub row has taken the brunt of it and has come back pretty well, but I wish I could see how it would look if it hadn't been knocked back so much.

And beginnings are important. It takes a lot of time and effort to improve the soil and break up any compaction before planting, but it will definitely pay off in the long run.

### Kyle Johnson, Landscaper Omaha, NE

My opinion on weeds in general is that plants are the most effective, sustainable solution to weed control rather than any product. Mother Nature will always try to fill empty space. Weeds are simply opportunists, taking advantage of vacant real estate. By filling empty space with groundcovers, grasses or other desirable plants instead of using a product or maintenance practice to keep empty space empty, you eliminate the opportunity for (most) weeds to ever gain a foothold in the first place.

### Chrissy Land, Western Nebraska Community Forestry Specialist, Scottsbluff, NE

In western Nebraska, **bindweed** and **thistle** are the most challenging weeds to work with. I was once told you will never eradicate **bindweed** therefore you must manage it, always and forever, once you have it. I have diligently worked on gardens densely overtaken by **bindweed** and by the end of the summer it seems like I haven't even made a dent. Its root system is complex. Each time you pull at a vine, it just breaks off the root system which then is activated to sprout at any and all given points, possibly increasing the foliage and causing the root system to grow even larger. One root can be many feet in length. By taking a variety of approaches, **bindweed** can be successfully managed but unless every tiny piece of root and the seeds





What doesn't work...

Landscape fabric eventually becomes unsightly, accumulates soil where weeds can grow and reduces air and moisture absorption. Rock mulch does much the same.

are removed or killed it will not be eradicated. Some herbicides are growth regulators on steroids and as a result some plants may respond with more growth. So it's important to understand what you are working with and accept that not everything can be solved in a snap.

Weed management is best done with a proactive approach rather than reactive. It is best to start by understanding the site you are working with, identifying any limitations and determining what your options are for dealing with it. The goal is to use all of the research-proven tools available to limit weeds. It starts with selection and placement of plants. When plants are spaced closely together, they have a better chance of out-competing weeds. With new plantings, pre-emergence may be the best option but it may damage some perennials. The other important option is to mulch, mulch, mulch, but not too much—it's critical to not choke out plants with mulch but to create another barrier against weeds.

Timing is important also, figuring out a schedule or system that works best to stay on top of things and catch big issues early in the game. As a reactive step for the bigger issues, it is important to understand what selective herbicides are and how and when to properly use them. While a broadleaf herbicide can wipe out dandelions in turf without harming the lawn, trees are also broadleaves, so avoid applying anything within the root zones of trees that might harm them.

Worry-free weeds: **milkweed**, **sunflower** and **dill** are a few weeds that truly can have a place in the landscape. Once you learn to appreciate the value they bring to the garden for our wildlife and insects they may not seem like weeds. I encourage gardeners to selectively let some of these great weeds grow.



And what does...

Leaving **milkweed** and other beneficials in a landscape can bring in pollinators like the swallowtail above.

One management approach that doesn't work long-term is landscape fabric. I see it as a waste of time and money. You lay the fabric, cut holes for the newly planted plants at their pot size which they quickly outgrow, then put down mulch which has a mix of larger branch chunks and fine dirt. The dirt settles to the bottom, wind adds silt and weed seeds to the mix and within just two or three years you can have up to 3" of wonderful weed-growing medium on top of the fabric. It doesn't allow for proper water and gas exchange for healthy root systems, it is a pain to remove and can be quite expensive. Pre-emergence does the same job but promotes a healthy growing environment.

Another misconception is that rock is low maintenance and a quick fix. It looks great for the first few years but then wind blows in dirt and weed seed that fill in the crevices over time. Often it is reflective and can increase the impact of heat stress on plants.

Many times we organize our gardens in such a way that they need to be taken care of but if we understand how plants naturally take care of themselves, work with their strengths and place them appropriately we can get the best bang for our buck and create gardens that require less effort. Taking time to learn about things before diving in and making quick decisions can help us understand the long-term effects of different gardening practices and work smarter, not harder.



Trumpet vine

### Kendall Weyers, Sustainable Communities Coordinator, Lincoln, NE

The personal weed devils I'm dealing with are **trumpet vine** and **creeping Charlie**. The trumpet vine is pure evil and just laughs at any efforts to control it, whether herbicide or hand removal. I'm hoping persistence and patience will pay off with it and by regularly taking a few minutes to pull/cut/dig the shoots when they're small (the parent plant is on an adjoining property), that I'll at least hold my ground. Creeping charlie isn't that hard to control with herbicide, but that needs to be done before your whole property is dominated by it. It's sneaky and persistent, creeping and crawling through every gap, between every plant, under every rock and basically parties in mulch and thin turf. I don't have **bindweed**, but I have dealt with it on other properties and consider it equally evil.

Worry-free weeds: I'm more than okay with **clover**, **plantain**, **violets** and **dandelions** (before they go to seed).

As far as management, proper placement and care of plants can make a big difference from the start—learn about the plants you use, give them what they want and let them do their thing by placing dry-loving plants together and pruning only as needed. For larger landscapes, have less manicured turf, more shrub/grass/perennial beds and let some space go semi-wild. It's better for pollinators and biodiversity, and greatly reduces inputs of water, fuel, fertilizer, pesticides and your time and money.



Plantain

Continued on next page





The best way to discourage weeds is to space plants tightly together and simply not give them room to grow (photo by Benjamin Vogt).

**Benjamin Vogt, garden designer, Lincoln, NE**

My thoughts on weed management shift year by year and site by site. It’s always a new ballgame it seems. I seem to have the best luck when I spray kill a lawn and plant or sow directly into it.

The most troublesome weeds, in my experience, are **crabgrass** and **quackgrass**, followed by **creeping charlie** and **purslane**. I’m still experimenting with how to handle each—spray for a clean slate, hand-pulling or planting dense layers of perennials (groundcovers and mid-height seasonal forbs) on 12” centers.

Management depends on the size of the site, current weed density, and how much commitment there is to management. I’ve not used a pre-emergent; nuking an area first and/or repeatedly to exhaust weed seed bank is as far as I want to go right now. But maybe



**Purslane**

pre-emergent is best for a municipal site IF plants were put on 12” centers and a matrix was used. I’m beginning to think spring gardens should not be installed unless they are in shade or in a killed lawn, as there is less weed competition in those spaces. Waiting until fall means fewer weeds and more time for plants to get established for the next growing season. On a smaller site we can weed, but on larger sites it’s not feasible unless we employ mowing. I’ve been reading about using a gravel or sand mulch layer above the in-situ soil, either as a mulch or as something we plant straight into, especially for spring/summer install. In any case, I will be using FAR more groundcovers, and aggressive ones at that, in the future—combined with sowing annual forbs as a temporary nurse crop; I’ve had decent luck with coreopsis, rudbeckia and partridge pea.

Wood mulch really isn’t a long-term answer if the goal is low maintenance and ecologically thriving spaces. Wood mulch just creates gaps for weeds to move into over time and prevents desired species from spreading quickly. What we need is more plants, and more plant layers, as we see in the wild. What do most landscapes want to become? Once we figure that out, we plant for that. Most urban lots want to become a dense vegetative area, so let’s mimic that with planned plant communities paying attention to root

habit, growth habit, etc. and jam in as much diversity as possible. Worry-free weeds: **Foxtail** if you keep it mowed to minimize seedheads, and **dandelions**.

Management recommendations: Having a plan and having a budget/willingness/crew to see it through; repeated consults in the first year to guide or tweak management; management that includes both weeding AND replacing plants. If those have to be a new species, then so be it; it doesn’t make sense to put the same species in if it doesn’t work and yet that’s done all the time.

Every site really does present unique challenges, and what worked here doesn’t necessarily work there, or at least not in the same exact way. If folks can keep up with weeds in year one, it really really really does make a huge difference in year two. But that’s only the case if the right plants have been used—and that means taking into account plant layers, reproductive behavior, rooting behavior and succession.

**Lucinda Mays, Horticulturist, Chadron, NE**

Every summer I declare that “this is the year of the weed!” and with the rain this summer, I do think that 2019 has surely been good for the weeds—and other plants, too, thank goodness!

Out west, **downy brome** or **cheatgrass** is a constant problem. An annual cool season weed that seeds abundantly in disturbed ground, it is a constant battle to keep it in check, starting in early fall when it first sprouts. The best controls are constant monitoring, hand-pulling or hoeing, very heavy mulch in



**Downy brome**



its early stages of growth and relentless harvesting of seedheads in the summer.

**Canada thistle** is hard to manage and must be kept after to keep any control. The best herbicide control I've had is when I applied it at the recommended rate when flower buds are just starting to show color. Other than that, hand-pulling, hoeing, mowing or removing foliage to starve the roots will help slow the plant down until it begins to bud.

**Bindweed** is best managed by pulling the vining tops off the roots once the vines start showing up in early summer. Late summer herbicide slows the growth down, but I'm not so sure it does much to control it. Hand-pulling is best.

As I look at these big three problem weeds, I remember they are all native to Europe. I'm not sure what that means, but it does give me something to think about while I'm pulling weeds!

### Rachel Allison, NFS forester and Arboretum Curator, North Platte, NE

I've been weeding landscapes for a very long time, and I actually enjoy it. There are parts to it that are frustrating—the time it takes and having to use herbicides to keep on top of large areas or during heavy bloom times. But it gives me time to think, including thinking about weeds: when is a good time for better control, what weeds are growing in what season, what is the best way to remove weeds and what is the best way to manage them. Because everyone is different, and because every garden, landscape or lawn is different, each situation will be different too. Following are some of my ideas as I work in a public garden and think about volunteers working in landscapes.

First we need to differentiate high maintenance or cultivated gardens from natural landscapes. Certainly in a cultivated garden with specific plants, all other plants, even seed that comes from desirable plants, will become weeds when they're in the wrong place. Even desirable tree seedlings like oak, elm and hackberry, along with undesirable ones like **mulberry**, **tree of heaven** and others, are candidates for removal. Generally, however, smaller weeds take up most of our weeding efforts: **prostrate spurge**, **purslane**, **dandelion**, **clover**, **prickly lettuce**, **kochia**, **sandbur**, **puncturevine**, **henbit** and **blue mustard** in the spring; and of course grassy weeds like **windmill grass**, **crabgrass**, **foxtail** and others.



Providing native plants for toads may not be a high priority for you but, like Rachel Allison, we got quite attached to our greenhouse toad this spring.



In native landscapes, however, being more tolerant of some weeds helps reduce the use of herbicides and provides habitat for beneficial insects. As time goes by and I'm pulling the same weeds over and over again, I realize they want to be there. So this year I'm leaving the **catmint** and **purslane**. The **catmint** will be helpful to butterflies and other insects, and the **purslane** can cover the ground but not become a problem like puncture vine does. Others I'm thinking about removing are **henbit**, **prostrate spurge** and **bedstraw**. These plants don't interfere with plant growth but are unsightly and plants like **bedstraw** will climb into

shrubs. As other groundcovers and low forbs increase, smaller numbers of weeds will be less visible and less of a problem.

Over the last couple of years I've added some native plants and grasses, which changes how I treat the weeds. For the native plants to reseed and cover the bare ground, I need to avoid spraying or applying pre-emergent, which prevent desirable new perennials and annuals from coming up.

Why be tolerant of weeds? Several beneficial insects are now taking cover under the spurge where there's moisture. As we move toward fall, insects will be laying eggs on the weeds, so if I'm going to clean up my garden, I better do it before then. Why protect the insects? Insects do many good things for our plants; for one thing they provide food for birds, even toads. It makes my summer when I have toads, and I even saw a frog this year! So I have decided to keep some weeds, to acknowledge that some of them are okay in the landscape.

How to manage weeds: time of year is important—when weeds are flowering and producing seed, get them out of your landscape! It is also important to distinguish between annual and perennial weeds. In late summer **spurge**, **purslane** and **puncturevine** are abundant. Which ones should be pulled now? Definitely get rid of **puncturevine** and **spurge** before they go to seed. For tree seedlings and perennial and biennial weeds the roots need to be removed or they will resprout. Weeding is best done every week to stay on top of them.



This elm seedling is hiding in a bed of perennial geraniums almost exactly the same shade of green, showing how hard it can be to spot, and remove, weeds that are hidden in with other plants.

# Beat 'em by eating 'em

Bob Henrickson, NSA Assistant Director of Horticulture Programs

With today's emphasis on buying and growing local, along with budgets tightening and health concerns rising, we're realizing that gardens can be both beautiful and productive. It's easy to incorporate vegetables and other edibles into existing beds and it's a definite win-win. We get the beauty and produce, our landscapes get the diversity and edible plants benefit from the increase in pollinators that flowering plants attract.

There's one component—the easiest component—of an edible landscape that we often overlook. Instead of battling the weeds that are everywhere present, an easier management technique is to harvest them.

Initially I was skeptical about eating dandelions, stinging nettle greens, milkweed, cattail shoots. Sure, you can eat them, I thought, but they're only for survival food, right? My recommendation is to give them a try. Like me, you may eventually find yourself seeking these plants out and making sure they go to seed to create next year's "crop."

These plants are everywhere except in stores, and it's another way to get outside, interact with the natural world, and bring home some fresh food as well.

The wild edible weeds listed below are tasty, easy to harvest and prepare and many can be frozen or dried for use later. Much of the following information is from the websites listed at the end... with a special thanks to Kay Young for her excellent guide and cookbook, *Wild Seasons: Gathering and Cooking Wild Plants of the Great Plains*.

Warning: please note that careful identification is an essential first step to any foraging.

## Lambsquarter, *Chenopodium album*

This leafy green that is completely transformed when cooked. The top growth on 4-6" plants can be eaten fresh and taste similar to any other leafy green. It has a wonderful fresh flavor when sautéed, stir-fried, creamed or added to soups, omelets or quiche. Kay Young's creamed lamb's quarter recipe is delicious and easy to make. It also can be blanched and frozen for later use. Like its cousin quinoa, it's a super-food that's high in Vitamins A and C, riboflavin, niacin, calcium, manganese, potassium and iron.



## Stinging Nettle, *Urtica dioica*

People have been gathering and eating stinging nettles for decades. I learned of them from my friend and mentor, Kay Young, author of *Wild Seasons*. Nettles are one of the first plants to emerge in spring and need to be gathered early. You'll feel the sting when you harvest them, so wear gloves; but the stinging hairs dissolve and are harmless once cooked. They taste better to me than any other green and can be dried for winter use, so fill a grocery bag when you find them. They're packed with 17 essential vitamins and minerals, phytonutrients like deep-green chlorophyll (a detoxifying, antimicrobial enzyme) and carotenoids, along with fatty acids, lycopene and several other beneficial phytochemicals. I am not a big tea drinker, but nettle tea is one of my favorites.



## Creeping Charlie, *Glechoma hederacea*

This aromatic evergreen spreads to form a carpet-like mat. European settlers carried it all around the world and its bitter leaves are used as a salad green in many countries. It has a rich history of treating problems of the ear, nose, throat and digestive system.

## Purslane, *Portulaca sativa*

This is a favorite among urban foragers. The fleshy, oval-shaped leaves have a slightly sour taste and the texture is crunchy and slick. Stems, leaves and flower buds are all edible and can be used fresh as a substitute for lettuce in salads, sandwiches, tacos and burritos; stir-fried or cooked like spinach; and because of its mucilaginous quality it also is suitable for soups and stews. Greeks mix the leaves and stems with feta cheese, tomato, onion, garlic, oregano and olive oil or use it as a filling in baked pastries. It's low in cholesterol, a good source of vitamins and minerals and is best-known as having more omega-3 fatty acids than any other leafy plant on earth.

## Dandelion, *Taraxacum officinale*

We spend millions of dollars to rid our lawns of this weed that could contribute to our kitchen and bathroom cabinets. Dandelions were a staple of early colonial life as all parts of the plant



are edible. Leaves can be eaten as salad greens or steamed; flowers can be made into wine and syrup and the roots can be steeped for tea or roasted as a coffee substitute. It's low in calories but high in fiber and vitamins A, C and K.





**Dock, Curly or Sour, *Rumex crispus***

This weed is everywhere and almost impossible to eradicate, so we might as well use it. Fortunately its tender top leaves are a delicious spring or late fall green. Larger leaves (with tough center veins removed) can be cooked for “dock roll-ups” in place of grape or cabbage leaves. Its leaves are high in beta-carotene, vitamin C and zinc. Folklorist Roger Welsch, author of **Weed ‘Em and Reap**, says—“boil or steam fresh young leaves for just a short time, add a few drops of fresh lemon juice, a little bacon grease or butter and a little salt and you will have a first rate, and very wholesome, vegetable green to go along with your T-bone steak.” Kay Young’s grandchildren called this the “doc” plant, since it was used to treat skin problems.

**Bedstraw or cleavers, *Galium aparineis***

Bedstraw emerges in March. Rather than letting it sprawl into and smother other plants, it can be gathered to add to smoothies; dried for tea; or finely chopped to add to soups or other dishes. It’s high in Vitamin C and in minerals like silica that are necessary for the health of nails, hair and teeth.

**Common Milkweed, *Asclepias syriaca***

We’re growing it for butterflies but it’s one of the best wild edibles for us as well, and for most of the growing season. The soft, tender young shoots of common milkweed can be harvested before the leaves unfurl in spring. The milky sap is mildly toxic and needs to be boiled for a few minutes and the water discarded. Once cooked, they taste like a mix of green beans and asparagus. Later in the summer, the fragrant flower clusters can be dipped in fritter batter, dropped into hot peanut oil and dusted with powdered sugar. Don’t collect all of the flower clusters, as the immature seed pods can be harvested later in the season



Common milkweed in the wild, and sauteed.

while still young and green, cooked for about 10 minutes, drained and used in casseroles or soups. Native Americans simmered the pods with buffalo meat as a natural meat tenderizer since they have an enzyme called papain that breaks down connective tissues in meats (the same substance is derived from papayas for use in commercial meat tenderizers). Finally, in late summer the tiny new leaves on top of the plant can be fried in a bit of olive oil for crispy leaves with a tasty, earthy flavor.



**Asiatic dayflower, *Commelina communis***

This plant has a pea-like sweetness. Its stem, leaves, flowers and seeds are edible for several months over the summer but get tougher with age so it’s best to harvest only fresh young growth at the top. They can be eaten steamed, boiled or fried and are especially good creamed. Its name derives from the flowers which open for only one day and can be eaten fresh in salads.

There are many other great plants for foraging—common plantain, wild violet, catnip, burdock, wild mustard, etc.

This information is not intended as medical advice. Besides Kay Young’s **Wild Seasons**, much of this information was gleaned from, and is available, online.



Nebraska Statewide Arboretum  
University of Nebraska  
102 Keim Hall  
P.O. Box 830964  
Lincoln, NE 68583-0964

Non Profit  
U.S. Postage  
PAID  
UNL






One of the best ways to reduce the need for weeding is to simply leave no room for them. Below are some low, spreading plants that can help suppress weeds.

- Alumroot, *Heuchera richardsonii*
- Barren strawberry, *Geum fragarioides*
- Cranesbill, *Geranium*
- Dwarf spiderwort, *Tradescantia tharpaii*
- Evening primrose, *Oenothera*
- Fleabane, *Erigeron pulchellus*
- Hairy golden aster, *Chrysopsis villosa*
- Ornamental onion, *Allium*
- Packera, *Packera plattensis*
- Pasqueflower, *Pulsatilla*
- Poppymallow, *Callirhoe*
- Prairie petunia, *Ruellia humilis*
- Violet, *Viola*
- Prairie smoke, *Geum triflorum*
- Pussytoes, *Antennaria*
- Sedges, *Carex*
- Windflower, *Anemone*

“A weed is a plant that is not only in the wrong place, but intends to stay.”  
Sara Stein



## Lots of Ways to Connect

-  JOIN US for talks, tours, plant sales and free First Thursday noon brownbags at the Jayne Snyder Trail Center, 228 N 21st in Lincoln
-  BUY NATIVE & recommended plants from us, many with local seed source
-  RECOMMEND us to friends, family and co-workers
-  GIVE. We are a grassroots nonprofit that relies on our members
-  FOLLOW us on Facebook, Twitter, Pinterest or Instagram

[plantnebraska.org](http://plantnebraska.org)

