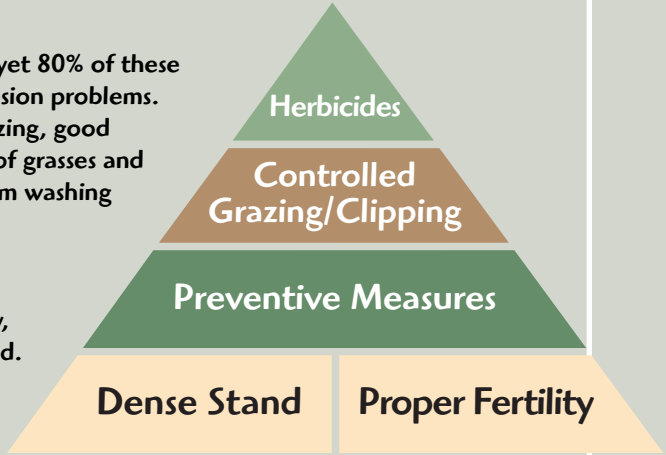
The Dirty Dozen and Beyond

Identifying and Managing 25 Pasture Weeds of Wisconsin

Management is key!

More than a quarter of agricultural land in the Midwest is in pasture, yet 80% of these pastures suffer from poor, uneven fertility coupled with weed and erosion problems. Whether you practice rotational grazing or traditional continuous grazing, good pasture management is a must. A healthy pasture with a dense stand of grasses and few weeds not only promotes productive livestock, but keeps rain from washing manure, soil, pesticides and nutrients into nearby waterways.

As shown in the illustration at right, the most important element in preventing weeds is promoting healthy grasses through proper fertility, along with preventive measures to keep weeds from gaining a foothold. This booklet can be one part of your weed prevention measures, allowing you to identify and target weeds before they become a widespread problem.



The Dirty Dozen and Beyond – 25 Pasture Weeds of Wisconsin

Pastures are always composed of a mixture of species – some we planted and some we did not. Some we find useful and some we do not. Among the unwanted plants, 25 are found in Wisconsin pastures. In many pastures, perhaps only two or three weed species exist, while others may have five or six species. You will certainly find other plants and weeds not described here. However, this booklet should help you determine the important weeds in your pastures.

This information is the first step in developing a weed management program. Contact your County Extension Educator or other agricultural professional for additional assistance in identifying and managing your pasture weeds. You will also find information on pasture weed identification and management at these web sites:

http://cecommerce.uwex.edu/pdfs/A3646.PDF

http://ipcm.wisc.edu/uw_weeds/

Life Cycles of Pasture Weeds

It is helpful to know the life cycle of the weeds you have. Let's review the three life cycles in the plant world:

Biennial plants require two years to produce seed and die. The first year, they form only a *rosette* of leaves. They require the cold temperatures of winter to shift from vegetative growth to the reproductive (flowering) stage. Biennial plants do not re-grow from roots. We have many biennial weeds in pastures and fencerows in Wisconsin.

Perennial plants like Canada thistle and horsenettle may become established from seeds but once established, perennials re-grow each year from roots or *crown* buds. Perennials live indefinitely and, like biennials, they thrive in non-disturbed habitats like pastures.

Annuals are plants that complete their life cycle (go from seed to seed) in 12 months or less and only produce new plants by seeds. Annual weeds are not common in productive, well-managed pastures. The perennial forage grasses and legumes in your pastures should prevent weeds with this life cycle from predominating. This happens because the forage species are already established and prevent seeds of annual weeds from germinating and becoming established. If you find annual weed species in your pastures, you need to assess why this is happening. Of course, some annual weeds around the barn lot, feeding areas, trails, etc. are to be expected because soil disturbance creates the right environment for them to germinate and grow. The main pasture area should have few if any annual weeds.

Here is a comparison of the characteristics of plants within each life cycle:

CHARACTERISTIC	BIENNIALS	PERENNIALS	ANNUALS
plants live for...	2 years: first year plants form rosettes; second year they flower, set seed and die	indefinitely	less than one year
they spread by...	seeds only	vegetatively (buds on root crowns and spreading roots) and perhaps seeds	seeds only
plants flower...	in the second summer only	every summer (except horsetail and ferns)	a few months after they germinate
root system	*taproot*	*spreading* or *taproot*	fibrous or *taproot*
mowing effectiveness	fair to very good	poor to fair	good to excellent
herbicide effectiveness	excellent	fair to very good	excellent

Technical terms are often used to describe and identify plants. Several of these terms are defined in the glossary at the end of this booklet. Words listed in the glossary are italicized in the booklet text.

In the information that follows, we describe ways to contain, *control* or *suppress* each weed species. When herbicides are suggested, we often use the common names of the active ingredients of the herbicides because products with different trade (brand) names often have the same active ingredients. This is especially true when a patent expires and generic products appear as has happened with glyphosate, the active ingredient in Roundup®, Touchdown® and many other products. Also, some products have identical active ingredients and are marked with different trade names for specific markets. An example is Transline® and Stinger® (trade names). Both contain clopyralid (common name of the active ingredient) but Transline® is only registered for use in non-crop sites and forests while Stinger® is approved for use in pastures and grass crops like corn and wheat.

The suggested herbicide treatments (if listed) for weed control are only that: suggestions. Other products may also give satisfactory performance. Consult the pasture section of UWEX Bulletin A3646 (Pest Management in Wisconsin Field Crops, available at **http://cecommerce.uwex.edu/pdfs/A3646.PDF**) for a more complete listing of herbicide performance on specific pasture weeds. Mention of specific herbicides in this booklet is for your convenience and is not an endorsement or criticism of one product over other similar products. You are responsible for using herbicides in full compliance with the current product label.

Biennials

Perennials

Annuals

BIENNIAL

Bull thistle

Cirsium vulgare

root	• non-spreading *taproot*
leaves	• wrinkled, deeply *lobed*, with a gray-green surface covered with hairs • appear old even when young • *rosette* leaves 6 to 12 inches long • stem leaves smaller • each leaf lobe has a prominent needle-like spine
stem	• base of leaves extends down the stem, giving the stem the appearance of being spiny • 3 to 5 feet tall; branched
flower	• flower head is flask-shaped and 1 to 2 inches across with pink flowers • seeds with *pappus*
other	• found throughout Wisconsin; seldom in high populations

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1-2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these*


inflorescence


rosette


leaf


leaf extending down stem


mature bull thistle releasing fluff

Carduus acanthoides

Plumeless thistle

root	• non-spreading *taproot*
leaves	• deeply *lobed*, spiny and hairy, especially on the lower surface and *midrib* • the leaf lobes are often at an angle to midrib; do not lay flat
stem	• very spiny from base to top of the plant • 3 to 5 feet tall; branched
flower	• flower heads 0.75 to 1 inch across, with pink flowers • seeds with *pappus*
other	• most common in southwest and southcentral Wisconsin where it is often (incorrectly) referred to as "Russian thistle"

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1-2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these*


whole plant


plumeless thistle often starts at the barn


flowering plant


leaves


rosette

BIENNIAL

Musk thistle

Carduus nutans

root	• non-spreading *taproot*
leaves	• spiny *lobes* may be grayish-green (water soaked) on edges • no hair on top or bottom of leaf blade • midvein often white
stem	• stout; somewhat branched • 3 to 6 feet tall
flower	• flower heads 1.5 to 2 inches across with pink to violet-pink and fragrant flowers; heads often nod or droop • 4 to 8 inches of stem below flower heads without spines • seeds with *pappus*
other	• found primarily in southeast and south central Wisconsin • biotypes with hairy leaves rare but present

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1-2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these*

habitat

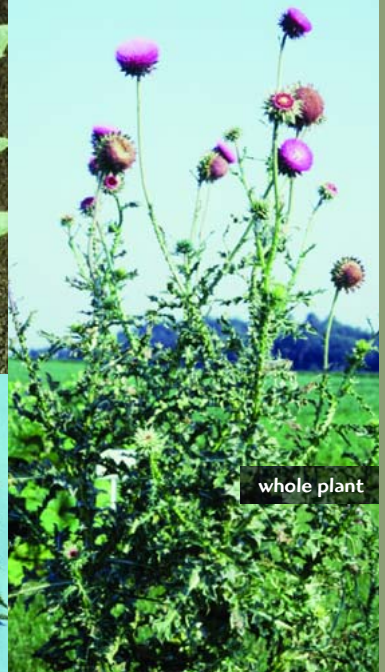
leaf above

leaf below

rosette

inflorescence and leaf

whole plant



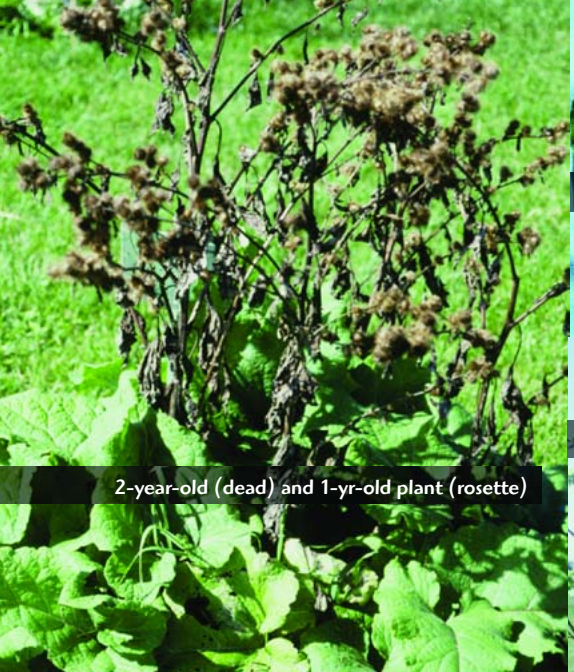
Burdock

Arctium minus

root	• non-spreading *taproot*
leaves	• *rosette* leaves heart-shaped, resembling rhubarb leaves; dark green on top and lighter green and woolly white below • rosette leaves very large (up to 20 inches long); stem leaves much smaller • leaves with *petioles*
stem	• branched, thick, grooved and hollow • 5 to 8 feet tall; nearly as wide
flower	• flower heads 0.5 to 0.75 inches across with pinkish to red-violet flowers • when mature, each fruit is covered with hooked spines (*bracts*) that form the burs that are 0.5 inch across
other	• very common in fencerows and pastures • burs with hooked spines a nuisance for humans and animals

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1-2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these*



2-year-old (dead) and 1-yr-old plant (rosette)

seedling

underside of rosette leaf

inflorescence

bolted burdock

rosette leaves

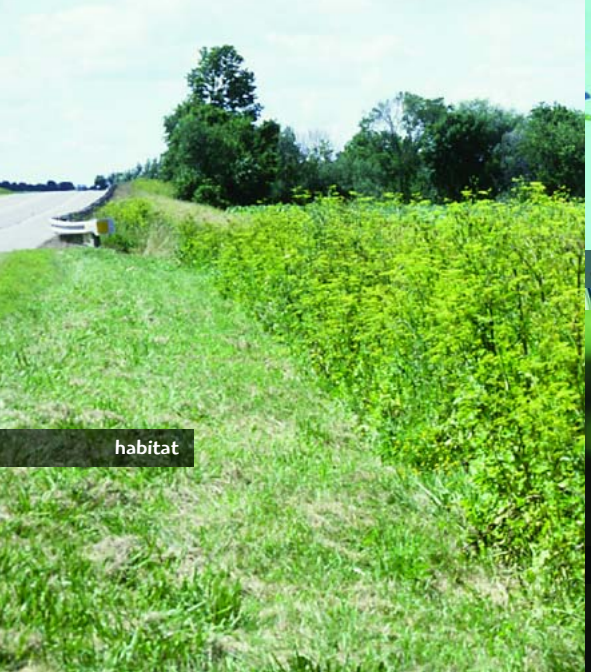
Wild parsnip

Pastinaca sativa

root	• non-spreading white to yellowish *taproot*
leaves	• *rosette* leaves large and erect with long *petioles* • basal and lower stem leaves are *pi*nnate*ly* compound with saw-toothed edges and not hairy • the *leaflets* are often mitten-shaped and the leaf petioles clasp the stems • the stem leaves much smaller with 2 to 5 pairs of leaflets
stem	• grooved and branched up to 6 feet tall
flower	• *inflorescence* a flat-topped compound *umbel* • single flowers with 5 small, yellowish petals; form two flat, rounded, ribbed seeds
other	• plant sap on skin usually causes sunburn and/or blisters • not poisonous to livestock

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1-2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these; Ally® also effective*


habitat


rosette leaf


close view of inflorescence with ripe fruits


umbel-shaped inflorescence


whole plant

Wild carrot

Daucus carota

root	• non-spreading, deep, tough, whitish-yellow, fleshy *taproot*
leaves	• finely divided, carrot-like in appearance and aroma • *rosette* leaves with long *petioles*
stem	• hairy, rough-textured, hollow • 2 to 4 feet tall
flower	• *inflorescence* a large, flat-topped compound *umbel*, 2 to 5 inches across • flowers small with 5 white petals in clusters • a single dark purple flower often in center of umbel
other	• also called Queen Anne's lace • small plants may not flower second year

management

- ✔ *mow as needed to prevent seed production; dig or cut plants 1–2" below soil surface*
- ✔ *spray rosettes with 2, 4-D, dicamba or a combination of these; Ally® also effective*


infestation


inflorescence - top view


root, leaf and inflorescence


inflorescence - bottom view


late flowering stage

Equisetum arvense

Field horsetail

root	• spreading *rhizome* system with tubers • rhizomes forked with a dark felt-like coating
leaves	• needle-like in whorls of 8-12 at joints of vegetative stems only
stem	• two types: **vegetative stems** tough, grooved, hollow, wiry with leaves at joints • **fertile stems** are whitish, succulent, unbranched, hollow; pull apart like stove pipe • both types have jointed stems with cup-shaped, toothed sheath at nodes and are 12 to 24 inches tall
flower	• does not flower; fertile stems produce spores in cones at the tips
other	• plants look like small pine trees or bottle brushes; poisonous to horses • common in wet areas; tolerates acidic soils

management

- ✔ *improve drainage; till site and replant adapted species*
- ✔ *no herbicide options*


habitat


leaf arrangement


spore heads of reproductive form


vegetative and reproductive form


vegetative form

Bracken fern

Pteridium aquilinum

root	• a spreading, black, scaly *rhizome* 20 or more feet in length
leaves	• *fronds* arise directly from rhizomes; many branches with many *leaflets* • up to 4 feet long and 3 feet wide with overall triangular shape
stem	• none
flower	• does not flower; forms brown spores in a dense band around the edges on the underside of frond leaflets
other	• poisonous if consumed repeatedly • adapted to acidic soils and moist and shaded areas

management

- ✔ *improve drainage and raise soil pH*
- ✔ *2, 4-D, dicamba and glyphosate give some level of control; retreatment often necessary*


whole plant


habitat


frond

Centaurea maculosa

Spotted knapweed

root	• non-spreading *taproot*
leaves	• basal leaves up to 6 inches long, deeply *lobed* with 3 to 10 lobes, gray-green with a rough hairy surface • leaves near the flower heads are smaller, narrow and less lobed to unlobed
stem	• rough surfaced and highly branched • 2 to 3 feet tall
flower	• flower heads (up to 200/plant) flask-shaped with pink to purple flowers • tips of bracts at base of the flower heads fringed with black spots, giving this weed its name
other	• most common in sandy, coarse-textured soils

management

- ✔ *remove plants by digging; mow as soon as flowers appear and repeat as needed to prevent seed production*
- ✔ *controlled with clopyralid or dicamba*


typical habitat: sandy soil


view of inflorescence from top


view of inflorescence from side


stem leaves


whole plant

Canada thistle

Cirsium arvense

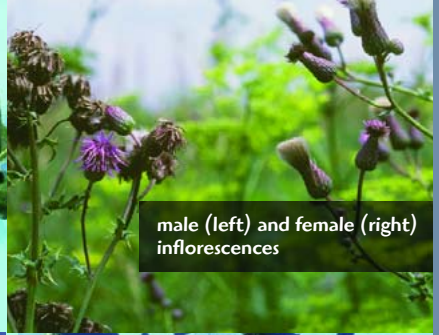
root	• branched, *spreading root* system that sends up new shoots
leaves	• shiny, wavy, with crinkled, spiny edges and no hair; 3 to 4 inches long
stem	• smooth and branched at the top • 2 to 4 feet tall
flower	• flower heads 0.5 to 0.75 inches wide and flask-shaped • flowers pink to almost purple (rarely white) • male and female flowers are found on separate plants (*dioecious*)
other	• plants often appear in patches due to the way the roots spread

management

- ✔ *mow as soon as flowering starts to prevent seed production*
- ✔ *clopyralid alone or with other growth regulator herbicides most effective option; suppressed by dicamba*

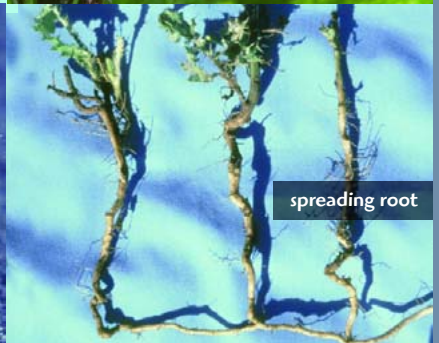

flowering plant


leaf


male (left) and female (right) inflorescences


bud stage


seed with pappus


spreading root

Horsenettle

Solanum carolinense

root	• branched, *spreading root* system that sends up new shoots
leaves	• *alternate*, oblong, with wavy edges; resemble oak leaves • spiny, especially on *midrib* of the lower side
stem	• prickly and hairy, simple or branched • 1.5 to 3 feet tall
flower	• white or bluish, about 1 inch across with 5-lobes in tomato-like clusters • fruits round, green, then yellow, juicy berries in clusters; become wrinkled and hang on the plants all winter
other	• spreads by roots and seeds

management

✔ *suppressed by Ally®, glyphosate and dicamba*


flowering plant


ripe fruits


immature fruits


stem and leaf with spines; flower


young plant


roots

Stinging nettle

Urtica dioica

root	• a spreading, extensive *rhizome* system
leaves	• *opposite*, narrow with saw-toothed margins and prominent veins • covered with stinging hairs; *petioles* relatively short
stem	• four-sided, ridged, usually not branched; covered with stinging hairs • 3 to 7 feet tall
flower	• no petals; greenish yellow in leaf axils and at tip of stems; male and female flowers in separate parts of same plant (*monoecious*) • fruits inconspicuous with one small yellowish to grayish-tan seed
other	• most common in wet sites and in patches; stinging hairs cause itching and numbness that lasts several hours

management

- ✔ *improve drainage; mow several times during season*
- ✔ *Crossbow®, WeedMaster® and glyphosate are effective but retreatment often needed*


young plant


toothed leaf


stinging hairs


flowering plant

Curly dock

Rumex crispus

root	• fleshy, thick, branched *taproot*; yellowish in color
leaves	• basal leaves large (up to 12 inches long) with wavy margins • *ocrea* surrounds stem at base of leaf *petioles*
stem	• smooth, unbranched, ridged, often reddish, especially late in season • up to 3 feet tall
flower	• in clusters on upper part of stems; composed of greenish sepals that become rusty brown when seeds are ripe • fruit a papery 3-winged triangular structure
other	• tolerates poorly drained and compacted soils

management

- ✔ *dig individual plants at least 8 inches below soil surface*
- ✔ *apply dicamba, Crossbow® or glyphosate*


ripe fruits on plant


inflorescence

stem with leaf


stem with ocrea


infested pasture


roots and young leaves

Bittersweet nightshade

Solanum dulcamara

root	• woody, branched
leaves	• most with two *lobes* at the base; some without lobes; dark green, *alternate*, smooth; have foul odor when crushed
stem	• semiwoody vine 2 to 10 feet long • stems form roots when in contact with soil
flower	• resemble potato flowers; have 5 purple or whitish petals with a yellow center; form branched clusters arising from leaf axils • fruit an oval green berry that becomes bright red and juicy when ripe and contains small, yellowish seeds
other	• also known as bitter nightshade and deadly nightshade; can be poisonous to animals and humans • usually climbs on fences and shrubs but can grow without support

management

- ✔ *find and dig root where plants arise*
- ✔ *apply dicamba or glyphosate*


fruiting plant


fruits and flowers


leaves


ripe fruits

Giant chickweed

Myosoton aquatica

root	• fibrous shallow; roots also form at stem *nodes*
leaves	• hairy, *opposite*, no *petioles*, pointed, 1 to 2 inches long
stem	• hairy, weak and branched; often trailing on ground
flower	• 5 snow-white petals that are deeply divided • arise from branches in leaf axils • fruit a capsule with many small tannish-orange seeds; often droops when ripe
other	• tips of hairs on stems and leaves have sticky droplets • can invade rapidly

management

- ✔ *mow before seeds form; reseed heavily infested areas with competitive forage species*
- ✔ *apply dicamba or glyphosate*


infestation


stem and leaves


flower with split petals


flower, seeds and fruit


rooting at stem nodes

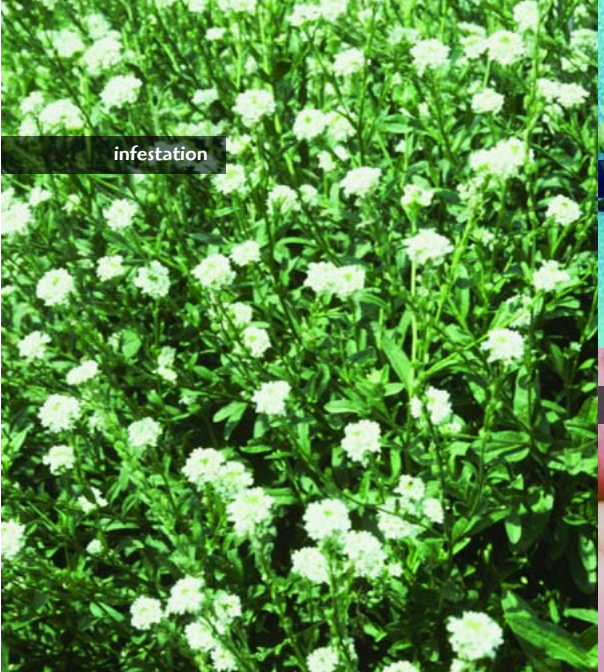
Hoary alyssum

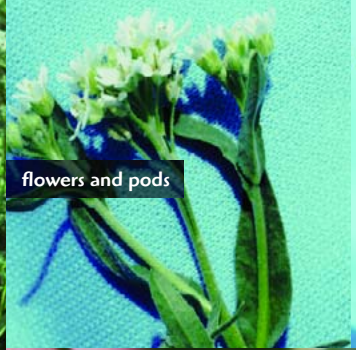
Berteroa incana

root	• branched *taproot*
leaves	• narrow, *alternate*, rough textured, gray-green up to 3 inches long
stem	• rough textured, gray-green branched • 1.5 to 2 feet tall
flower	• 4 snow white, deeply cut petals in form of a cross • pods hairy, elliptical to oval with short beak on the end; up to ⅛ inch long with many, reddish-brown, small lens-shaped seeds
other	• most common in sandy, coarse textured and gravelly soils • unpalatable; can be poisonous to horses if consumed in large amounts in hay

management

- ✔ *mow as needed to reduce seed production; reseed heavily infested areas with competitive forage species*
- ✔ *apply 2, 4-D in late summer or fall*


infestation


flowers and pods


young plant


flower with four split petals


stems with flowers and immature and ripe pods

Goldenrod

Solidago spp.

root	• spreading root/*rhizome* system; thus plants often appear in clumps
leaves	• *alternate*, without a *petioles*, *lanceolate*; usually rough textured
stem	• leafy, coarse textured, hairy, seldom branched • 2 to 4 feet tall; remain erect all winter long
flower	• usually on one side of horizontal flower branch with many small, yellow flowers • form very small seeds with tuft of white bristles on the top
other	• many species; Canada goldenrod is one of the more common • poor livestock feed • goldenrods are native plants but are often invasive

management

✔ *repeated mowing minimizes spread; hard to kill but glyphosate and dicamba + 2, 4-D give suppression*

infestation

flowering branches

Multiflora rose

Rosa multiflora

root	• non-spreading branched roots
leaves	• *compound* with 5 to 11 *leaflets* • leaflets up to 1.5 inches long with toothed margins
stem	• woody, long, arching canes with hooked thorns
flower	• white to pinkish, fragrant, 0.5 to 0.75 inches across • 25 to 100 flowers in a cluster • form rounded and bright red fruits that stay on plant into winter
other	• plants start from seeds and form large, dense clumps

management

- ✔ *dig individual plants*
- ✔ *goats eat and control multiflora rose bushes*
- ✔ *Ally®, Crossbow® and glyphosate as foliar spray are effective; cut or mow tall plants first and then treat regrowth*


typical habitat


leaves and green fruits


ripe fruits


stem and thorns


many flowers

Prickly ash

Xanthoxylum americanum

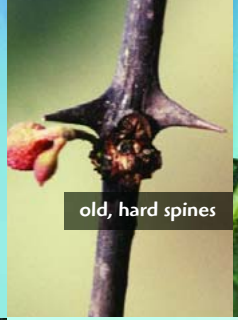
root	• non-spreading shallow root system
leaves	• *opposite, compound*, to 12 inches long with 2 to 5 pair of *leaflets* and a terminal leaflet; leaflets 1.5 to 2 inches long • dull green above; lighter green below
stem	• 6 to 20-feet tall shrub or small tree with triangular spines • bark gray to brown, smooth
flower	• flowers with 5 petals; appear before leaves • small, greenish-yellow on slender stalk • small, berry-like capsules contain one or more shiny black seeds
other	• common as thickets in partially shaded areas and edges of woods • native to North America; many medicinal uses • leaves, stems and fruits highly aromatic with a citrus scent

management

- ✔ *small plants easily pulled out by hand*
- ✔ *readily eaten by Scottish Highland cattle*
- ✔ *Garlon 4® the most effective herbicide*


branch with fruits


leaves


old, hard spines


young spines at leaf axil


infestation


clusters of ripe fruits on branches

Yellow foxtail

Setaria lutescens

root	• fibrous; no *rhizomes*
leaves	• long hairs at the base of the blade only
stem	• hairless and flattened • bases often purplish • 1.5 to 3 feet tall
flower	• a spike, 3 to 5 inches long with yellowish bristles; does not droop
other	• comes from seed every year • unpalatable to horses and cattle

management

✔ *mow frequently to prevent seed production; reseed heavily infested areas with competitive forage species*


infestation


mature plants


seed heads


leaf blade with hairs


seeds

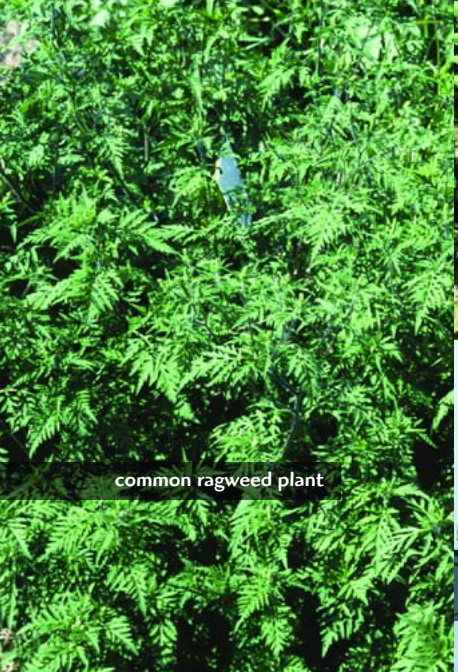
Common & Giant ragweed

Ambrosia artemissifolia & A. trifida

root	• branched *taproot*
leaves	• **common ragweed:** *pinnately compound*; lower leaves *opposite*, middle and upper leaves *alternate* • **giant ragweed:** three-*lobed*, large, mostly opposite
stem	• hairy and branched, rough textured • **common ragweed:** 2 to 3 feet tall • **giant ragweed:** 4 to 12 feet tall
flower	• inconspicuous; *monoecious* • male flowers clustered on stalks at tips of branches • female flowers in leaf axils below male flowers
other	• both ragweed species rather unpalatable

management

- ✔ *mow as needed to prevent seed production*
- ✔ *2, 4-D and dicamba control young plants*


common ragweed plant


common ragweed seedling


common ragweed inflorescence


giant ragweed plant


giant ragweed leaf


giant ragweed inflorescence

Pigweeds

Amaranthus spp.

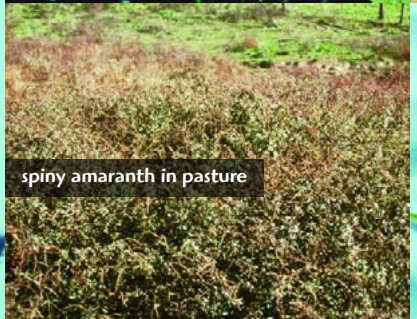
root	• *taproot;* may be branched; often reddish
leaves	• young leaves have a notch at tips, *alternate*, with *petioles*
stem	• smooth or hairy • 2 to 4 feet tall
flower	• many inconspicuous flowers in cylindrical spikes; some species with shiny *bracts* making seed heads prickly • seeds small, shiny, black
other	• common species include redroot, smooth, prostrate, tumble pigweed and waterhemps; spiny amaranth is a new weed in Wisconsin pastures • can accumulate nitrates

management

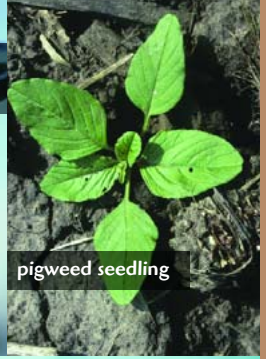
- ✔ *mow as needed to prevent seed production; reseed heavily infested areas with competitive forage species*
- ✔ *apply 2, 4-D or dicamba to control pigweed species*


inflorescences of two pigweeds


young plants


spiny amaranth in pasture


spiny amaranth stem with spines


pigweed seedling


inflorescences of many pigweed species

Ranunculus abortivus

Smallflower buttercup

root	• many and fibrous
leaves	• two types; both succulent and shiny – **basal leaves**: round with toothed margins and borne on long *petioles* – **stem leaves**: divided into 3 to 5 *leaflets* with somewhat toothed margins and on shorter petioles
stem	• slender, branched, smooth • up to 18 inches tall
flower	• small with 5 bright yellow petals; flowers appear in May • each flower head with small, yellowish-brown, wrinkled seeds
other	• smallflower buttercup behaves as an annual or biennial • common and tall buttercup are perennials found in Northern Wisconsin • buttercups can be toxic when consumed fresh; non-toxic in dry hay

management

- ✔ *mow as needed to prevent seed production*
- ✔ *Ally® dicamba and Crossbow® effective*


whole plant


infestation

flower

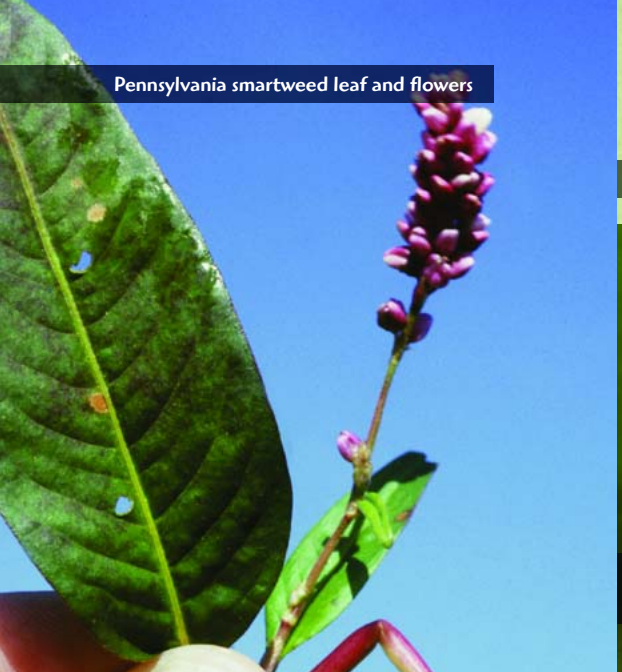
Smartweeds

Polygonum spp.

root	• branched *taproot*
leaves	• 2 to 5 inches long; pointed; *alternate*, with *petioles*
stem	• branched with an *ocrea* at the swollen *nodes* • stems that touch soil surface may root at nodes • 1.5 to 3 feet tall
flower	• pink or pinkish white in terminal spikes • seeds flattened and circular or triangular; black or dark brown
other	• two common species: ladysthumb (often with a "thumbprint" on the leaves) and Pennsylvania • both of low palatability to livestock

management

- ✔ *mowing reduces but will not prevent seed production*
- ✔ *dicamba and glyphosate effective*



Pennsylvania smartweed leaf and flowers

smartweed seeds

Pennsylvania smartweed seed head

ladysthumb smartweed ocrea and leaf

Pennsylvania smartweed ocrea at leaf axil

Jimsonweed

Datura stramonium

root	• thick and very branched *taproot*
leaves	• large, *alternate*, smooth with irregularly toothed edges
stem	• smooth, hollow, often purple; branched, becoming almost woody • 3 to 5 feet tall
flower	• tubular or trumpet-shaped, 2 to 4 inches long; white to whitish purple • fruits egg-shaped, green when young; when ripe covered with stiff prickles • seeds flattened, black with pitted surface
other	• stems and leaves with very strong, foul odor • all plant parts poisonous to humans and animals • often appears first near barns and in feeding areas

management

- ✔ *hoe, cut or pull as plants appear*
- ✔ *2, 4-D controls small plants; glyphosate controls larger plants*


whole plant


pasture infestation near farm buildings


leaf


fruit


leaves and flower

alternate leaves: occurring singly at each node; not opposite

bract: a modified (reduced) leaf, often below a flower structure

compound leaf: composed of two or more leaflets

control: to kill plants with mechanical, chemical or biological means or to reduce their growth to levels that allow desired species to predominate

crown: the persistent base (at the soil surface) of herbaceous plants like dandelions; this region often has buds with the potential to re-sprout if main stem is cut

dioecious: plants with male and female flowers on separate plants (Canada thistle)

fluff: (refer to ***pappus***)

inflorescence: any kind of flower cluster on a plant; for plants in the daisy family, the collection of individual flowers is called the flower head

frond: a fern or palm leaf

lanceolate: much longer than wide; widest below the midpoint and tapering to both ends

leaflet: a leaf-like segment of a compound leaf

lobe: the projecting part of a leaf; maple leaves are lobed

midrib: the middle vein of a leaf

monoecious: plants with male and female flowers in separate locations on the same plant (the ragweeds)

node: points along the stem where leaves are borne; joint of attachment along a stem

ocrea (also spelled ochrea): the membranous, papery sheath surrounding the stem immediately above the point of leaf attachment on plants in the buckwheat family

opposite leaves: a pair of leaves directly across from each other on the stem

pappus: a group of hairs attached to some seeds in the sunflower family (most thistle seeds have a pappus); also referred to as fluff

petiole: stalk of the leaf that supports the leaf blade

pinnate: having a row of leaflets on each side of the midvein giving leaf a feather-like appearance

rhizome: underground stem with nodes and internodes on some perennial narrow leaf plants like quackgrass

rosette: a basal, crowded whorl of leaves; the first leaves formed on biennial plants

spreading root: thickened root that generally grows horizontally; forms buds that produce stems; found on some perennial broadleaf plants like Canada thistle and horsenettle

suppression: significantly reducing plant growth and hopefully minimizing competitive and reproductive ability; suppressed weeds often re-grow and may dominate desired species in time

taproot: thickened primary root; may be branched; taproot often has buds in the crown region that form leaves and shoots

umbel: a flat-topped or rounded inflorescence with the flower stalks arising from nearly the same point

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The Dirty Dozen and Beyond – 25 Pasture Weeds of Wisconsin

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For more information on pasture weed identification and management, visit this web site: http://ipcm.wisc.edu/uw_weeds/
This publication can be viewed and printed at: clean-water.uwex.edu/pubs/pastureweeds

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