

# Identification of Common Wisconsin Weeds

## Annual Broadleaves

### BUCKWHEAT FAMILY

#### Wild buckwheat (51)\*

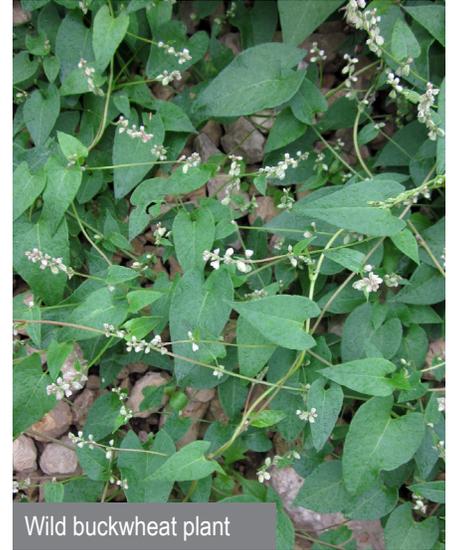
*Polygonum convolvulus*

- Cotyledon:** oblong oval with granular waxy surface  
**Ocrea:** at leaf axils; small  
**Stems:** trailing vines  
**Leaves:** heart-shaped with pointed tips  
**Flowers:** greenish-white, small and inconspicuous  
**Seeds:** 3-sided

\* indicates the page in *Weeds of the North Central States* that describes the plant



Wild buckwheat seedling



Wild buckwheat plant



Wild buckwheat ocrea

### BUCKWHEAT FAMILY

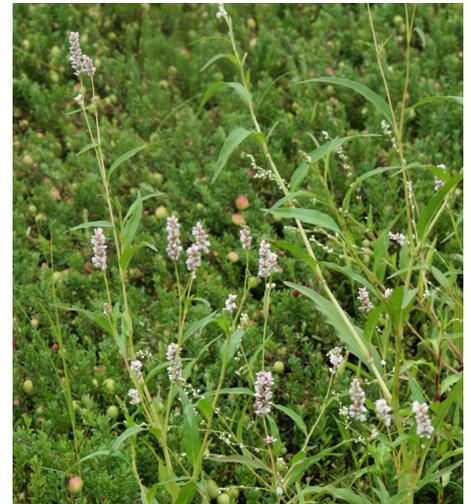
#### Pennsylvania smartweed (52)

*Polygonum pennsylvanicum*

- Cotyledon:** lanceolate to oblong, rounded tips  
**Ocrea:** at leaf axils; smooth top  
**Stems:** reddish, branched swollen nodes  
**Leaves:** rounded at base; pointed at tip  
**Flowers:** pink, terminal flower clusters  
**Other:** seed black, shiny, flattened, circular with pointed tip



Penn. smartweed ocrea



Pennsylvania smartweed flowering plants



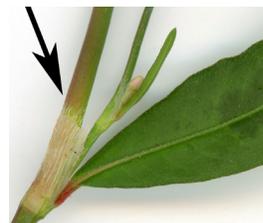
Penn. smartweed seeds

### BUCKWHEAT FAMILY

#### Ladysthumb smartweed (52)

*Polygonum persicaria*

- Cotyledon:** lanceolate to oblong, rounded tips  
**Ocrea:** at leaf axils; hairy top  
**Stem:** reddish with swollen nodes branched  
**Leaves:** pointed at both ends, often have "thumb print"  
**Flowers:** pink, terminal flower clusters  
**Other:** seeds black, most triangular



Ladysthumb ocrea



Ladysthumb smartweed plants



Ladysthumb seeds

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## GOOSEFOOT FAMILY

### Common lambsquarters (57)

*Chenopodium album*

- Cotyledon:** linear, small
- Leaves:** often have whitish, 'mealy'
- Covering:** shape is triangular or "goosefoot" shaped
- Stems:** have reddish streaks, branched
- Seed:** shiny, black, disk-shaped, 1/16 inch in diameter
- Other:** many biotypes, some resistant to herbicides



Lambsquarters seedling



Lambsquarters leaves



Lambsquarter flowers

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## PIGWEEED FAMILY

### Redroot pigweed (65)

*Amaranthus retroflexus*

- Cotyledon:** linear, smooth
- Root:** often reddish-pink taproot
- Leaves (stems):** notch in tip of first leaves; finely pubescent; reddish-purple color on underside of leaves
- Seedhead:** somewhat spiny, small, black, shiny seeds
- Other:** also called rough pigweed



Redroot pigweed seedling



Redroot pigweed stem



Redroot pigweed seedhead

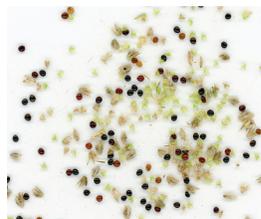
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## PIGWEEED FAMILY

### Smooth pigweed (64)

*Amaranthus hybridus*

- Cotyledon:** linear, smooth
- Root:** often reddish-pink taproot
- Leaves (stems):** generally smooth
- Seedheads:** longer than redroot pigweed; rarely branched
- Other:** resistant biotypes



Smooth pigweed seeds



Smooth pigweed stem



Smooth pigweed seedhead

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## PIGWEEED FAMILY

### Waterhemp

*Amaranthus tuberculatus*

- Cotyledon:** linear; egg-shaped
- Leaves:** nick in tip of first leaves; long-petioled; 3 to 6 in. long; somewhat shiny
- Stems:** smooth, often with colored stripes
- Inflorescence:** small greenish flowers, male and female flowers on separate plants
- Other:** several species of waterhemp in the region; resistant biotypes



Waterhemp seedling



Waterhemp young plant



Waterhemp inflorescence

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## PURSLANE FAMILY

### Purslane (71)

*Portulaca oleracea*

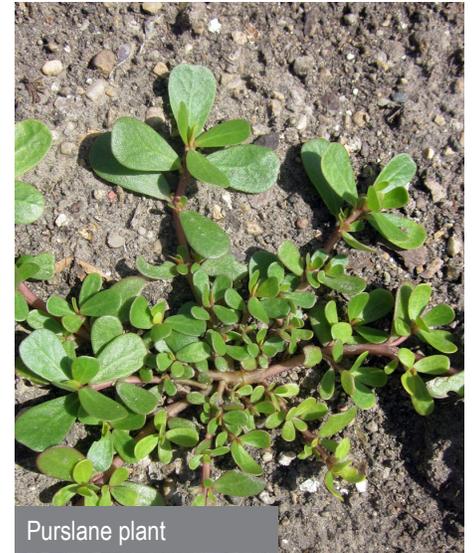
- Cotyledon:** linear or oblong, smooth
- Leaves:** fleshy, rounded, opposite
- Stems:** fleshy, prostrate, reddish, branched
- Flowers:** 5 yellow petals; small; numerous
- Seeds:** small, flattened, oval, glossy black
- Other:** plants can establish from stem pieces



Purslane seeds



Purslane flower



Purslane plant

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## MUSTARD FAMILY

### Wild mustard (89)

*Brassica kaber*

- Cotyledon:** heart or kidney-shaped; smooth
- Leaves (stems):** few bristly hairs
- Lower leaves:** large, triangular and lobed (not to midrib)
- Upper leaves:** reduced in size; no petioles
- Flowers:** 4 bright yellow petals
- Seed pods:** "beak" of seed capsule 1/3 length of whole capsule; open to release round seeds



Wild mustard seedpod



Wild mustard stem



Wild mustard flowers

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## MUSTARD FAMILY

### Wild radish (100)

*Raphanus raphanistrum*

- Cotyledon:** heart or kidney-shaped, smooth
- Lower leaves:** rounded lobes often reach to midrib
- Leaves (stems):** stiff, scattered hairs
- Flowers:** 4 yellowish-white petals; sometimes with purplish veins
- Seed pods:** form constrictions and break into small segments with seed inside
- Other:** fruits contaminate oats and barley grain



Wild radish lower leaf



Wild radish stem



Wild radish flowers and seedpods

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## MUSTARD FAMILY

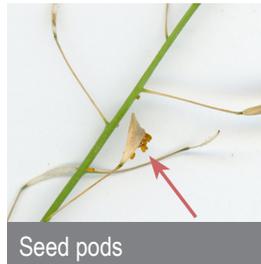
### Shepherd's purse (91)

*Capsella bursa-pastoris*

- Cotyledon:** ovate to rounded
- Rosette leaves:** starlike branched hairs on upper surface; leaf lobes point to leaf tip
- Stalk (stems):** elongated stalk; leaves clasp stem
- Flowers:** small with 4 white petals
- Seed pod:** small, triangular-shaped



Young plant



Seed pods



Shepherd's purse plant

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## MUSTARD FAMILY

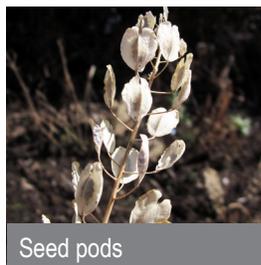
### Field pennycress (104)

*Thlaspi arvense*

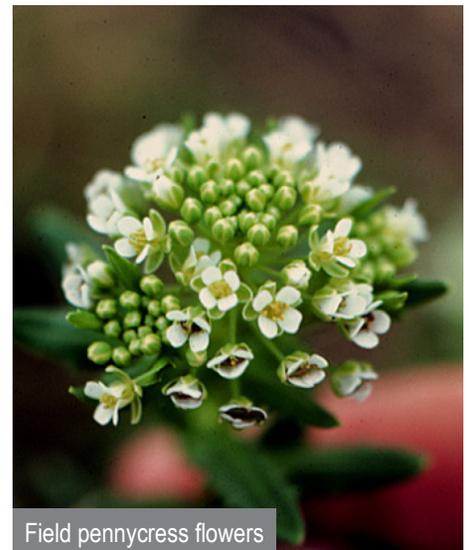
- Cotyledon:** round, bluish-green
- Leaves:** rosette and stem leaves; ear-like lobes that clasp stems on upper leaves
- Flowers:** flowers with 4 white petals; in clusters
- Seed pod:** notch in top of pod and flat wing around edge
- Other:** garlic-like odor in crushed leaves and stems



Young plant



Seed pods



Field pennycress flowers

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## MALLOW FAMILY

### Velvetleaf (122)

*Abutilon theophrasti*

- Cotyledon:** round or heart-shaped  
**Leaves:** very large, heart-shaped, softly hairy  
**Stem:** pubescent  
**Flowers:** yellow with 5 petals  
**Seed capsules:** 13-15 segments; resembles "butterprint"



Velvetleaf seedling



Flower and seed capsule



Velvetleaf leaf and flower

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## NIGHTSHADE FAMILY

### Jimson weed (157)

*Datura stramonium*

- Cotyledon:** lanceolate, smooth  
**Leaves:** ovate (egg-shaped) with pointed tip lobes; wavy margins  
**Stems:** hollow, purplish, and smooth  
**Flower:** white tubular flowers  
**Seed capsules:** spiny, golf ball sized with many seeds  
**Other:** strong, foul odor in leaves and stems; poisonous



Jimson weed flower



Seed capsule



Jimson weed plant

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## NIGHTSHADE FAMILY

### Eastern black nightshade (162)

*Solanum ptycanthum*

- Cotyledon:** ovate, smooth, small  
**Leaves:** purplish color on underside; often with "shot holes"  
**Stems:** erect or spreading; widely branched  
**Flowers:** 5 white reflexed petals  
**Fruits:** green, turning black at maturity; contaminate harvested products



Seedling



Black nightshade flower



Black nightshade fruit

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## NIGHTSHADE FAMILY

### Hairy nightshade

*Solanum physalifolium*

- Cotyledon:** ovate, hairy
- Leaves:** ovate to nearly triangular; finely hairy, especially veins & margins
- Stems:** finely hairy
- Flowers:** 3-9 flowers on short stalk; 5-petaled; white or tinged with purple
- Fruit:** turns yellowish brown when ripe



Hairy nightshade flowers



Hairy nightshade stem



Hairy nightshade fruit

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## GOURD FAMILY

### Bur Cucumber (178)

*Sicyos angulatus*

- Cotyledon:** large; spoon-shaped, thick with dense short hairs
- Stems:** long, ridged vines; sticky-hairy; branched tendrils allow plants to climb over crops
- Leaves:** 3 to 5 shallow lobes (pentagon-shaped), alternate, petioled
- Flowers:** male and female flowers arise at separate axils; 5 greenish-white fused sepals and petals
- Fruits:** in clusters of 3 to 20 egg-shaped, barbed, prickly pods; each pod with one seed



Bur cucumber seedling



Bur cucumber flowers



Bur cucumber plant

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## COMPOSITE FAMILY

### Common ragweed (181)

*Ambrosia artemisiifolia*

- Cotyledon:** oval to spatulate, thick
- Leaves:** lacy, finely divided, opposite initially, then alternate; first leaves with 5 lobes
- Stems:** rough, hairy and branched
- Flowers:** male flowers in terminal clusters; female flowers in leaf axils



Seedling



Flowers



Common ragweed plant

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**COMPOSITE FAMILY**

**Giant ragweed (183)**

*Ambrosia trifida*

- Cotyledon:** oval to spatulate
- Leaves:** opposite, large and 3-5 lobed; upper leaves often simple; roughly hairy
- Stems:** woody and 1-2 inches thick; tough, hairy; 6-14 feet tall
- Flowers:** male flowers in terminal clusters; female flowers in leaf axils



Giant ragweed seedling



Giant ragweed leaf



Giant ragweed flowers

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**COMPOSITE FAMILY**

**Horseweed (204)**

*Conyza canadensis*

- Cotyledon:** round to ovate
- Leaves:** many leaves, no petioles; hairy; entire or toothed
- Stems:** covered with bristly hairs; branched at top
- Flowers:** many small flowers on axillary branches
- Other:** also called marestail; common in no-till sites



Horseweed leaves



Horseweed flowers



Young horseweed plant

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**COMPOSITE FAMILY**

**Smallflower galinsoga (210)**

*Galinsoga parviflora*

- Cotyledon:** oval to squarish, hairy; abruptly tapered at base
- Leaves:** opposite, toothed
- Stems:** branched, hairy
- Flowers:** 4-5 white ray flowers surrounding yellow disk flowers



Galinsoga flowers



Young galinsoga plant



Galinsoga plants

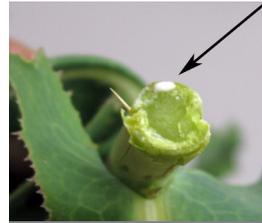
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## COMPOSITE FAMILY

### Prickly Lettuce (224)

*Lactuca serriola*

- Cotyledon:** ovate to spoon-shaped
- First leaves:** rosette of pale green leaves; no spines
- Later leaves:** lobed with spiny edges and spines on midrib of underside of leaves; leaf bases clasp the stem
- Stems:** hollow; top very branched when mature
- Flowers:** pale yellow flower heads that release seeds attached to a pappus
- Other:** leaves and stems with milky sap



Prickly lettuce stem



Prickly lettuce leaf



Prickly lettuce flowers

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## COMPOSITE FAMILY

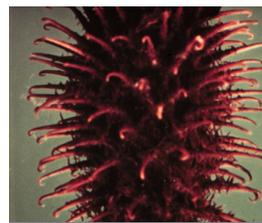
### Cocklebur (240)

*Xanthium strumarium*

- Cotyledon:** lanceolate, thick
- Leaves:** large, triangular and lobed; 3 prominent veins
- Stems:** rough texture, dark purple spots
- Leaves (stems):** sandpaper-like textured surface
- Flowers:** small, male and female separate but borne together in clusters in axils of upper leaves; two female flowers are enclosed in each oval bur



Cocklebur seedling



Oval bur



Cocklebur leaves

## Biennial Broadleaves

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## COMPOSITE FAMILY

### Burdock (187)

*Arctium minus*

- Taproot:** large, thick, and fleshy
- Rosette leaves:** huge with heart-shaped base; white-woolly below
- Leaves:** alternate, prominent veins
- Stems:** tough; much branched
- Flowers:** red-violet color; 3/4 - 1 inch across
- Fruit:** a bur with hooked spines



Burdock flowerbuds



Burdock burs



Burdock young plant

COMPOSITE FAMILY

**Musk thistle (199)**

*Carduus nutans*

- Leaves:** smooth, waxy; grey-green margin with a white, hairless midrib; spiny edges that extend down stem
- Stems:** spiny from leaf bases except right below flower head
- Flowers:** 1-½ to 2 inches in diameter; rich pink color; head often tips downward



Musk thistle flowerbud



Musk thistle leaf



Musk thistle flower

COMPOSITE FAMILY

**Plumeless thistle (198)**

*Carduus acanthoides*

- Leaves:** leaves deeply divided; hairy esp. lower surface midrib; decurrent
- Stems:** spiny from base to flower head due to decurrent leaves
- Flowers:** ¾ to 1 ½ inches in diameter; pinkish



Plumeless thistle rosette



Plumeless thistle flowerbuds



Plumeless thistle flower

COMPOSITE FAMILY

**Bull thistle (202)**

*Cirsium vulgare*

- Leaves:** deeply cut, spiny margins with a wrinkled surface; hairy
- Spines:** prominent; needle-like
- Stems:** spiny with decurrent leaves (extend down the stem)
- Flowers:** 1-2 inches in diameter; are flask-shaped; pink to pink-lavender



Bull thistle rosette



Bull thistle stem



Bull thistle flower

# Perennial Broadleaves

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## HORSETAIL FAMILY

### Horsetail (11)

*Equisetum arvense*

- Spreads:** by spores and rhizomes
- Fertile stems:** stems hollow, not branched; easily separated joints
- Vegetative stems:** "leaves" in whorls at joints; looks like small pine trees
- Other:** most common in wet areas



Horsetail roots



Horsetail seedheads



Horsetail plants

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## BUCKWHEAT FAMILY

### Curly dock (55)

*Rumex crispus*

- Taproot:** fleshy, branched, and yellow
- Ocrea:** long; prominent
- Basal leaves:** 6-12 inches with wavy edges
- Stems:** smooth, erect, reddish
- Flowers:** small greenish becoming reddish brown at maturity, found in dense clusters on branches at tip of stem



Curly dock leaf



Curly dock seed pods



Mature curly dock flowers

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## PINK FAMILY

### White cockle (74)

*Lychnis alba*

- Leaves:** hairy and opposite, with no petiole; softly hairy
- Stems:** softly hairy
- Flowers:** white; male & female parts on separate plants (dioecious)
- Fruit:** seed pods with 10 short teeth



White cockle stem



White cockle flower



White cockle seed pod

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## MUSTARD FAMILY

### Yellow rocket (86)

*Barbarea vulgaris*

- Rosette leaves:** pinnate with large terminal lobe
- Stem leaves:** smooth with waxy surface
- Upper leaves:** clasp stem
- Flowers:** 4 yellow petals, similar to wild mustard but smaller



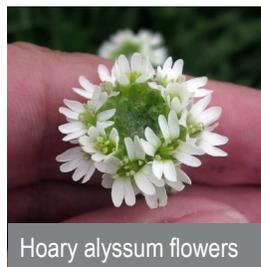
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## MUSTARD FAMILY

### Hoary alyssum (87)

*Berteroa incana*

- Leaves (stems):** grey-green in color; rough hairs on whole plant
- Flowers:** white with 4 deeply-divided petals
- Fruit:** seed pods small with short "beak"



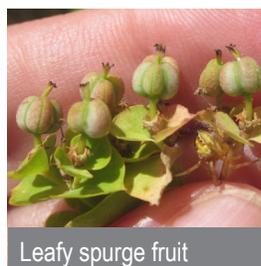
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## SPURGE FAMILY

### Leafy Spurge (118)

*Euphorbia esula*

- Roots:** deep and spreading
- Stems:** smooth
- Leaves:** alternate, strap-shaped, ¼ inch wide, usually drooping
- Flowers:** small and borne above greenish-yellow bracts
- Fruit:** explode when ripe, shooting 3 seeds, from parent plant
- Other:** all plant parts have milky sap



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## DOGBANE FAMILY

### Hemp dogbane (134)

*Apocynum cannabinum*

- Roots:** deep and branched
- Leaves:** opposite, narrow and pointed tips
- Stems:** smooth, reddish
- Flowers:** 5 greenish white petals that are slightly longer than green sepals
- Fruits:** long, slender pods; occur in pairs
- Other:** all plant parts have milky ap



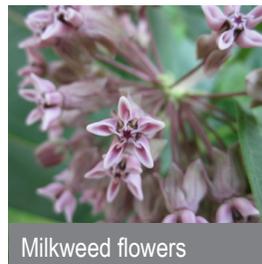
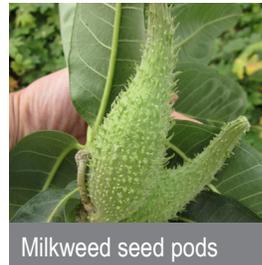
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## MILKWEED FAMILY

### Common Milkweed (137)

*Asclepias syriaca*

- Roots:** deep and branched
- Leaves:** opposite, thick, oblong, rounded tips, prominent veins
- Flowers:** pink to white in large many-flowered ball-like clusters at tip of stem and in axils of upper stems
- Other:** all plant parts have milky sap



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## MORNINGGLORY FAMILY

### Field bindweed (139)

*Convolvulus arvensis*

- Roots:** deep and spreading
- Stems:** trailing or climbing
- Leaves:** "arrowhead"-shaped leaves with 3 "points"
- Flowers:** white or pink, funnel-shaped, 1 inch or less in diameter, found in axils of leaves
- Other:** flower stalks have 2 stipules below flowers



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## MORNINGGLORY FAMILY

### Hedge bindweed (140)

*Convolvulus sepium*

- Roots:** deep and spreading
- Stems:** trailing or climbing (similar to field bindweed)
- Leaves:** "arrowhead"-shaped leaves with 5 "points"
- Flower stalks:** no stipules below flowers
- Flowers:** large, 1 ½ to 2 inches, white or pinkish



Hedge bindweed bud



Hedge bindweed flower



Hedge bindweed plants

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## PLANTAIN FAMILY

### Blackseed Plantain (171)

*Plantago rugelii*

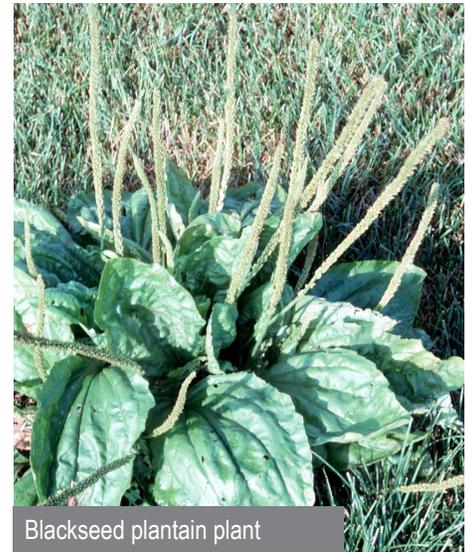
- Roots:** fibrous, tough
- Leaves:** in rosette, broad, ovate with 3 to 5 prominent veins; smooth; petioles purplish; egg-shaped, wavy margins
- Flowering stems:** leafless with many small inconspicuous flowers
- Other:** broadleaf plantain similar but lacks purple petioles and has smaller leaves



Young plantain plant



Blackseed plantain seeds



Blackseed plantain plant

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## NIGHTSHADE FAMILY

### Horsenettle (160)

*Solanum carolinense*

- Root:** spreading, deep with adventitious buds
- Leaves:** with yellow prickles on the petioles, veins and midribs; hairy; oblong with wavy edges (like oak leaf)
- Stems:** with sharp, stout spines; simple or branched
- Flowers:** potato-like with 5 fused white to purple petals; prominent anthers
- Fruits:** smooth green berries to 0.5" diameter, becoming yellow; become wrinkled and hang on plants most of winter
- Other:** plants poisonous



Horsenettle flower



Horsenettle fruit



Horsenettle stem

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## COMPOSITE FAMILY

### Canada thistle (200)

*Cirsium arvense*

- Roots:** deep and branched
- Stems:** smooth
- Leaves:** crinkled edges and spiny margins; smooth
- Flowers:** pink to purple, flash-shaped rarely white,  $\frac{3}{4}$  inches wide; male and female flowers on separate plants



Canada thistle stem



Canada thistle leaf



Canada thistle flowers

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## COMPOSITE FAMILY

### Perennial Sow Thistle (234)

*Sonchus arvensis*

- Roots:** spreading; shoots arise from buds
- Leaves:** prickly toothed, lobed; milky sap
- Stems:** milky juice; hollow; branch near top
- Flower heads:** branched with yellow ray flowers
- Seeds:** ribbed; with feathery pappus



Perennial sow thistle leaf



Perennial sow thistle stem



Perennial sow thistle flowers

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## COMPOSITE FAMILY

### Dandelion (237)

*Taraxacum officinale*

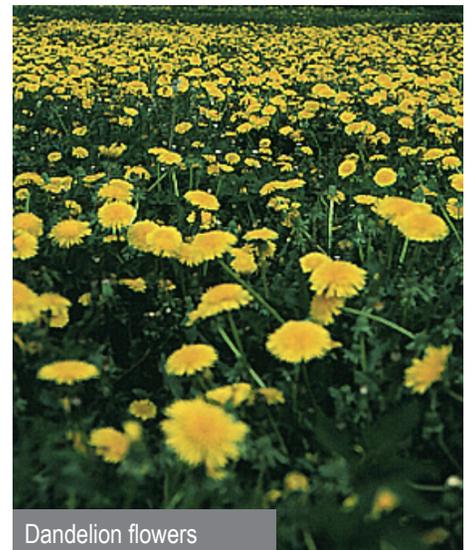
- Roots:** deep taproot with many buds
- Leaves:** lobes point to base of plant; watery, milky juice
- Flowers:** bright yellow with many seeds
- Seeds:** ribbed with barbs to aid in soil penetration; pappus aids in seed spread



Dandelion young plant



Mature flower head



Dandelion flowers