Laboratory
Broadleaf Weed Identification

Tips for Identifying Broadleaf Weeds

- The cotyledon is an important identifying characteristic for broadleaf weeds.
- Shape and position of leaves, presence of pubescence or hairs, and venation are all helpful characteristics.
- When weeds are mature, flower size, shape, and color can be used to distinguish weeds.
- Some broadleaf weeds such as pigweeds or morningglories can be difficult to specifically identify because of natural crossings that can occur between species within the same genera.
- Broadleaf weeds are *all* dicots

For the weeds listed below, specific information to aid in identification is provided. You will be responsible for identifying all of these broadleaf weeds

- alligatorweed
- balloonvine
- carpetweed
- common cocklebur
- common purslane
- common ragweed
- cutleaf groundcherry
- cypressvine morningglory
- eclipta
- entireleaf morningglory
- giant ragweed
- hemp sesbania
- hophornbeam copperleaf
- horsenettle
- ivyleaf morningglory
- palmleaf morningglory
- Pennsylvania smartweed
- pigweed sp.
- pitted morningglory
- prickly sida
- prostrate spurge
- purple moonflower
- red morningglory
- redweed
- scouringrush
- sharppod morningglory
- showy crotalaria
- sicklepod
- silverleaf nightshade
- smallflower morningglory
- smellmelon
- spotted spurge
- Texasweed
- trumpetcreeper
- wild poinsettia
- woolly croton

Other broadleaf weeds that you will be responsible for will include: (Will be added later)

You are encouraged to visit the weed science web site (www.lsuagcenter.com/weedscience) where photos of many of these weeds can be viewed.
**Vegetative Plant Parts**

- **Alternate**
  One leaf attached per node. Newest leaf is of smaller size.

- **Annual**
  A plant that lives a year or less.

- **Compound Leaf**
  A composite of two or more leaflets.

- **Cotyledon**
  Seed leaves; the first leaflike structures, usually paired, appearing above ground in most dicotyledonous plants.

- **Decumbent**
  Lying flat or prostrate, but with the tip growing upward.

- **Entire**
  Leaf margins that are smooth without irregularly cut or toothed edges.

- **Epicotyl**
  The length of stem above the cotyledons to the growing point.

- **First true leaf**
  First leaf to emerge after the cotyledons.

- **Glabrous**
  Without hairs

- **Hypocotyl**
  The length of stem between the node of the cotyledons and the root.

- **Leaf Apex**
  The outermost tip of a leaf.

- **Margin**
  The border or edge of any plant part.

- **Node**
  That part of the stem from which leaves or branches arise.

- **Ocrea**
  A membranous sheath surrounding the stem at the point of attachment of the leaves in members of the smartweed family.

- **Opposite Leaves**
  Leaves attached at the same node on opposite sides of stem. Leaves at same node are of similar size.

- **Orbicular**
  Semi-round to egg shaped.

- **Perennial**
  A plant that may live several years.

- **Petiole**
  The stalk of a leaf.

- **Pubescent**
  Hairy of downy, usually with fine soft hairs. Commonly the term is used to indicate hairiness of a generalized instead of a specialized type, and it is used loosely to cover any kind of hair.

- **Rhizome**
  An underground stem, often called rootstock, which provides a means for the spread of some perennial plants.

- **Serrate**
  With teeth-like sawteeth, that is angular and directed forward.

- **Simple Leaf**
  A single leaf.

- **Stipules**
  One of a pair of appendages at the base of the petiole at the point of attachment to a stem.

- **Stolon**
  A runner, that is, a branch which grows along the ground and produces adventitious roots.

- **Tap Root System**
  A root system with the primary root markedly larger than the others.

- **Terminal Bud**
  The bud at the end (apex) of a stem or branch where new leaves arise. Often referred to as the growing point or apical meristem.

- **Winter Annual**
  An annual plant that usually initiates growth in the fall, lives over winter, and produces seed in the spring.
Steps to Identifying Broadleaf Weeds

**STEP 1**
Overall characteristics  
Size, shape, color of plant

**STEP 2**
Cotyledons
1. Shape
2. Venation type and prominence
3. Hairy or glabrous
4. Coloration

**STEP 3**
Leaves
1. Arrangement on stem  
   (opposite or alternate)
2. Shape
3. Margin characteristics
4. Venation type
5. Hairy or glabrous
6. If lobed; leaves pinnately or palmately lobed?

**STEP 4**
Root system

**STEP 5**
Other characteristics
# Morningglory Identification

**Morningglories Common to Louisiana**

(a) Note cotyledon shape and angle between lobes  
(b) Hairs on stems and leaves  
(c) Leaf shape and texture  
(d) Flower color  
(e) Often times morningglory spp. will cross in nature resulting in plants that show characteristics of two or more species

<table>
<thead>
<tr>
<th>Morningglory species</th>
<th>Leaf</th>
<th>Stem</th>
<th>Sepal</th>
<th>Flower (corolla)</th>
<th>Capsule</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Shape</td>
<td>Pubescence</td>
<td>Herba- ceous prickles</td>
<td>Pubes- cence</td>
<td>Length</td>
</tr>
<tr>
<td>Tall</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Solitary</td>
<td>8 to 14</td>
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<tr>
<td>Entireleaf</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Solitary</td>
<td>12 to 24</td>
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<tr>
<td>Ivyleaf</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Solitary</td>
<td>12 to 24</td>
</tr>
<tr>
<td>Purple</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Solitary</td>
<td>10 to 13</td>
</tr>
<tr>
<td>Pitted</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>9 to 11</td>
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<tr>
<td>Cotton (annual or perennial)</td>
<td>Yes (slight)</td>
<td>No</td>
<td>No</td>
<td>Cyme</td>
<td>7 to 11</td>
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<tr>
<td>Shappeed (annual or perennial)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Cyme</td>
<td>8 to 13</td>
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<tr>
<td>Palmleaf</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Solitary</td>
<td>5 to 6</td>
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<tr>
<td>Red</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Solitary</td>
<td>8 to 9</td>
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<tr>
<td>Smallflower</td>
<td>Yes (edge only)</td>
<td>No</td>
<td>Yes</td>
<td>Cyme</td>
<td>12 to 15</td>
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<tr>
<td>Cypressvine</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Cyme</td>
<td>5</td>
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<tr>
<td>Bigfoot (perennial)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Cyme</td>
<td>17 to 18</td>
</tr>
</tbody>
</table>

Notes:
- **Leaf Shape**:
  - Tall: Yes, Dense
  - Entireleaf: Yes, No
  - Ivyleaf: Yes, No
  - Purple: No, Yes
  - Pitted: No, No
  - Cotton: Yes (slight)
  - Shappeed: No, Yes
  - Palmleaf: No, No
  - Red: No, No
  - Smallflower: Yes (edge only)
  - Cypressvine: No, No
  - Bigfoot (perennial): No, No

- **Stem**:
  - Tall: Yes, No
  - Entireleaf: No, Yes
  - Ivyleaf: No, Yes
  - Purple: Yes, No
  - Pitted: No, No
  - Cotton: No, Yes
  - Shappeed: No, Yes
  - Palmleaf: No, No
  - Red: No, No
  - Smallflower: Yes (dense)
  - Cypressvine: No, No
  - Bigfoot (perennial): No, No

- **Sepal**:
  - Tall: Solitary, 8 to 14
  - Entireleaf: Solitary, 12 to 24
  - Ivyleaf: Solitary, 12 to 24
  - Purple: Solitary, 10 to 13
  - Pitted: No
  - Cotton: Cyme, 7 to 11
  - Shappeed: Cyme, 8 to 13
  - Palmleaf: Solitary, 5 to 6
  - Red: Solitary, 8 to 9
  - Smallflower: Cyme (dense), 12 to 15
  - Cypressvine: Cyme, 5
  - Bigfoot (perennial): Cyme, 17 to 18

- **Flower (corolla)**:
  - Tall: White or pink to purple and variegated
  - Entireleaf: Light blue with white throat
  - Ivyleaf: Light blue with white throat
  - Purple: Lavender or pinkish lavender (open only at night)
  - Pitted: White or sometimes lavender
  - Cotton: Violet with red violet throat and white upper band
  - Shappeed: Light violet with light red violet throat and upper band
  - Palmleaf: Deep violet
  - Red: Scarlet with orange tube
  - Smallflower: Light blue
  - Cypressvine: Deep red
  - Bigfoot (perennial): White with lavender tube

- **Capsule**:
  - Tall: Sub-globe
  - Entireleaf: Sub-globe
  - Ivyleaf: Sub-globe
  - Purple: Ovoid
  - Pitted: Sub-globe
  - Cotton: Sub-globe
  - Shappeed: Sub-globe
  - Palmleaf: Ovoid (calculated peduncle)
  - Red: Sub-globe
  - Smallflower: None
  - Cypressvine: Sub-globe
  - Bigfoot (perennial): Ovoid
A Vegetative Key for Identification of Morning-glory Species in the Vegetative Stage

By C. Brent Rogers and Lawrence R. Oliver

Several of the morning-glory species present in Arkansas are competitive and damaging to crops. It is well documented that morning-glory species differ in their susceptibility to specific herbicides. Therefore, it is important to know which species is present before selecting the herbicide for control.

In addition, many postemergence herbicides lose their effectiveness after the target species becomes large, but plant keys often identify species by flowers or other reproductive parts, a time when it is much too late for control measures to be effective or to prevent crop yield reduction.

The following key was constructed to aid in identification of morning-glory species while they are still seedlings. Once they identify the species, growers should consult their county extension agent for control measures to use.

1. Cotyledons moderately deeply lobed; lobes pointed at tip and relatively narrow in proportion to length; lobes approximately 0.4 to 1.3 cm wide — (2).
2. Cotyledons shallowly to moderately deeply lobed; lobes more or less rounded and relatively wide in proportion to length; lobes 0.5 to 4.5 cm wide — (5).
3. Growing point (apical meristem) and point of cotyledon attachment does not emerge with cotyledons — Big-leaf morning-glory (Ipomoea pandurata).
4. Apical meristem does emerge with cotyledons — (3).
5. First true leaf other than heart-shaped — (4).
6. First true leaf heart-shaped and first true leaf and cotyledons medium to large in size (2 to 4.5 cm wide) — (5).
7. First true leaf finely pinnately lobed; cotyledon lobes extremely narrow (< 0.5 cm) with a very wide angle (120 to 150°) between lobes — Cypressvine morning-glory (I. quamoclit).
8. First true leaf palmately divided, five-lobed; cotyledon lobes narrow, narrow angle between lobes (< 90°); cotyledon has reddish cast in early stages — Palmleaf morning-glory (I. wrightii).
9. Main stem very pubescent between attachment of cotyledons and first true leaf — (6).
10. Main stem with few or no hairs between attachment of cotyledons and first true leaf — (7).
11. Petiole of first true leaf moderately pubescent and greenish in color; second true leaf also heart-shaped — Cotton morning-glory (I. trichocarpa var. torreyana).
12. Petiole of first true leaf is only sparse pubescent and is purplish in color; second true leaf may have 2 sharp-pointed lobes — Sharppod morning-glory (I. trichocarpa var. trichocarpa).
15. Cotyledons moderately deeply lobed with a narrow angle (< 90°) between lobes — (9).
16. Cotyledons shallowly lobed with a wide angle (> 90°) between lobes — (10).
17. Dense pubescence not readily apparent on first true leaf; short suture below cotyledons — Tall morning-glory (I. purpurea).
18. Dense pubescence readily apparent on first true leaf; cotyledons moderate in size; no apparent pubescence on stem below cotyledon attachment point; long suture below cotyledons — (10).
19. First true leaf heart-shaped, margin entire — Entireleaf morning-glory (I. hederacea var. integriacaulis).
20. First true leaf 3-lobed, much like an ivy leaf in appearance; angles between lobes recessed, rounded — Ivyleaf morning-glory (I. hederacea var. hederacea).
21. Cotyledons extremely shallowly lobed; cotyledons heart-shaped and small, < 1 cm any dimension; first true leaf with distinct marginal hairs — Small flower morning-glory (Jacquemontia tamnifolia).
22. Cotyledons less shallowly lobed and not heart-shaped; no distinct marginal hairs on first leaf; tooth-like projections around margin of first true leaf present or absent, but distinct if present — (12).
23. Cotyledons and leaves extremely large and cotyledon blades identical in appearance; leaves heart-shaped with entire margin; distinct purplish coloration of petioles of cotyledons and first leaf; stem very large with large projections appearing on stems later — Purple moonflower (I. mucicata).
24. Cotyledons and leaves moderate to small; first true leaf has no appearance of pubescence and is relatively flat and smooth; second leaf also has no appearance of pubescence; stem slender with no large projections — Red morning-glory (I. coccinea).
Morningglory Identification

**CYPRESSVINE MORNINGGLORY**  
(*Ipomoea quamoclit*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Butterfly  
Long and narrow  
Lobes pointed  
Long angle between points, much greater than 90°

**LEAVES:** Alternate  
Glabrous  
Deeply dissected into linear lobes  
Petioles grooved on upper surface

**OTHER:** Hypocotyl smooth and become wiry after 5 leaf stage

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**ENTIRELEAF MORNINGGLORY**  
(*Ipomoea hederacea var. integrifolia Grey*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Butterfly  
Moderate to deeply indented  
Lobes rounded  
Glabrous

**LEAVES:** Alternate  
Heart-shaped  
Hairy

**OTHER:** Creeping vine  
Smaller than Tall Morningglory  
Hypocotyl densely hairy, hairs stick out, may be red

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**RED MORNINGGLORY**  
(*Ipomoea coccinea*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Butterfly  
Often maroon-tinged  
Not deeply lobed with lobes rounded

**LEAVES:** Alternate  
Glabrous  
Heart-shaped  
Leaves with basal points  
Long-petiole  
Entire margins

**OTHER:** Green to maroon hypocotyl  
Hypocotyl smooth  
Creeping vine

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**SHARPPOD MORNINGGLORY**  
(*Ipomoea trichocarpa*)

**LIFE CYCLE:** Annual or weak Perennial

**COTYLEDONS:** Butterfly  
Deeply indented  
Lobes pointed

**LEAVES:** Alternate  
Glabrous  
First 2 leaves heart-shaped  
Later true leaves deeply 3 to 5 lobed

**OTHER:** Hypocotyl slightly hairy  
Often confused with Cotton Morningglory

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**SMALLFLOWER MORNINGGLORY**  
(*Jacquemontia tamnifolia*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Butterfly  
Slightly indented  
Lobes rounded  
Not Morningglory-like

**LEAVES:** Alternate  
Ovate-shape  
Broad at base  
Pinnate venation  
Hairy on margins  
Occasionally sparsely hairy on surface

**OTHER:** Creeping vine  
Hypocotyl hairy
**Morning Glory Identification**

**Ivy Leaf Morning Glory**  
(*Ipomoea hederacea*)  
**Life Cycle:** Annual  
**Cotyledons:** Butterfly  
- Moderately deep indents  
- Lobes rounded  
- Prominent veins  
- Glabrous  
**Leaves:** Alternate  
- Ivy shaped-lobes  
- Entire margin  
- Hairy  
**Other:** Creeping vine  
- Hypocotyl hairy

**Palm Leaf Morning Glory**  
(*Ipomoea wrightii*)  
**Life Cycle:** Annual  
**Cotyledons:** Butterfly  
- Deeply indented  
- Lobes pointed  
- Glabrous  
**Leaves:** Alternate  
- Glabrous  
- Palmately 3-7 lobed, but simple as the fingers on a hand  
- Hairy  
**Other:** Creeping vine  
- Hypocotyl smooth

**Pitted Morning Glory**  
(*Ipomoea lacunosa*)  
**Life Cycle:** Annual  
**Cotyledons:** Butterfly  
- Deeply indented  
- Lobes pointed  
- Lobes along point  
- Glabrous  
**Leaves:** Alternate  
- Glabrous  
- Heart shaped to basal lobed  
- Purple margin on leaves  
**Other:** Hypocotyl smooth, green or purple  
- Creeping vine

**Purple Morning Glory**  
(*Ipomoea purpurea*)  
**Life Cycle:** Annual  
**Cotyledons:** Butterfly, large  
- Slightly indented  
- Lobes slightly pointed  
- Glabrous  
**Leaves:** Alternate  
- Glabrous  
- Heart-shaped  
**Other:** Simple conventional taproot system  
- Creeping vine
**Broadleaf Identification**

**SMOOTH PIGWEED**  
(*Amaranthus hybridus*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Linear to oblong  
Often reddish violet beneath  
Glabrous

**LEAVES:** Alternate  
Oval to ovate  
Apex of first few leaves indented  
Entire margins  
Sometimes sparsely hairy

**OTHER:** Hypocotyl often reddish violet  
Stem without hair  
Almost impossible to distinguish between Smooth Pigweed and Tall Waterhemp in seedling stage.  
Tall Waterhemp has male and female flowers on separate plants.

**COMMON PURSLANE**  
(*Portulaca oleracea*)

**LIFE CYCLE:** Annual  

**COTYLEDONS:** Oblong  
Glabrous  
Thick and short

**LEAVES:** Opposite  
Glabrous  
Ovate  
Thick and juicy  
Smooth and flush-like without leaf petioles  
Green on upper surface, maroon tinged on lower surface

**OTHER:** Stems spread flat on the ground  
Stem is maroon and succulent  
Often confused with Prostrate Pigweed

**CARPETWEED**  
(*Mollugo verticillata*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Linear to oblong  
Glabrous  
Lacking evident veins

**LEAVES:** Alternate  
Basal margins edged with a few marginal hairs  
Dull throughout, pale beneath

**OTHER:** Leaves form a rosette  
Rank dusty odor when crushed  
No stem apparent  
Dichotomous growth habit

**COMMON COCKLEBUR**  
(*Xanthium strumarium*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Lanceolate  
Large, thick  
Glabrous

**LEAVES:** First two opposite, later alternate  
Rough surface  
Ovate shaped  
Margins may be toothed  
Three main veins  
Palmate venation

**OTHER:** Hypocotyl purple  
Stem with scattered purple to black spots

**COMMON RAGWEED**  
(*Ambrosia artemisiifolia*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Spatulate  
Glabrous

**LEAVES:** Opposite  
Pinnately lobed  
Hairy

**OTHER:** Hypocotyl often purple

**GIANT RAGWEED**  
(*Ambrosia triloba*)

**LIFE CYCLE:** Annual

**COTYLEDONS:** Spatulate  
Glabrous

**LEAVES:** Opposite  
Palmately lobed, 3 lobes later (occasionally 5 lobes)  
Margins may be toothed  
Hairy  
Rough
**Broadleaf Identification**

**PRICKLY SIDA** *(often called Teaweed)*  
*(Sida spinosa)*

**LIFE CYCLE:** Annual

**COTYLEDONS:** Round  
- Apex indented  
- Glabrous

**LEAVES:** Alternate  
- Round to ovate shaped  
- Toothed margins  
- Sparserly hairy

**OTHER:** Often confused with Velvetleaf and Hophornbeam Copperleaf

**PROSTRATE SPURGE**  
*(Euphorbia humistrata)*

**LIFE CYCLE:** Annual

**COTYLEDONS:** Oval  
- Glabrous  
- Green on the upper surface  
- Maroon on the lower surface  
- Exudes white latex when crushed

**LEAVES:** Opposite  
- Oval  
- Maroon blotch on the upper surface  
- Maroon with greyish powdery coating on lower surface  
- Pinnate venation  
- Hairy with serrated margins  
- Hypocotyl pink-smooth

**OTHER:** Bitter tasting  
- Leaves and stems have milky juice  
- Stem-pinkish-densely  
- Decumbent growth habits

**SPOTTED SPURGE**  
*(Euphorbia maculata)*

**LIFE CYCLE:** Annual

**COTYLEDONS:** Oval  
- Hairy  
- Green upper surface  
- Maroon lower surface  
- Margins slightly indented

**LEAVES:** Opposite  
- Hairy  
- Oval to ovate  
- Reddish in coloration in veins  
- Pinnate venation  
- Grayish powdery coating on lower surface  
- Margins slightly serrated

**OTHER:** Stems exude milky sap when broken  
- Hypocotyl narrow throughout, sparse soft hair  
- Profuse Spurge similar but forms mat on soil surface

**SHOWY CROTALARIA**  
*(Crotalaria spectabilis)*

**LIFE CYCLE:** Annual

**COTYLEDONS:** Oblong  
- Thick  
- Glabrous  
- Green on upper surface, light on lower surface  
- Midvein evident

**LEAVES:** Alternate  
- Green on upper surface, gray on lower surface  
- Upper surface glabrous  
- Pinnate venation  
- Margin slightly hairy

**OTHER:** Leaf petioles short

**PENNSYLVANIA SMARTWEED**  
*(Polygonum pensylvanicum)*

**LADYSTHUMB**  
*(Polygonum persicaria)*

**LIFE CYCLE:** Annual

**COTYLEDONS:** Lanceolate to oblong  
- Glabrous  
- Often reddish violet beneath

**LEAVES:** Alternate  
- Lanceolate shaped  
- Entire margins  
- Pinnate venation

**OTHER:** Hypocotyl often reddish violet  
- Ocrea (hairy on Ladysthumb)
**Broadleaf Identification**

**HOPHORNBEAM COPPERLEAF**  
(*Acalypha ostryifolia*)

- **LIFE CYCLE:** Annual
- **COTYLEDONS:** Round  
  - Glabrous
- **LEAVES:** Opposite  
  - Glabrous  
  - Dark green  
  - Pinnate venation
- **OTHER:** Stem smooth  
  - Often confused with Prickly Sida

**SICKLEPOD**  
(*Cassia obtusifolia*)

- **LIFE CYCLE:** Annual
- **COTYLEDONS:** Round  
  - Glabrous  
  - 3 to 5 distinct veins in the upper surface joining the midvein
- **LEAVES:** Alternate  
  - Glabrous  
  - Light green  
  - 3 to 5 leaflets, rounded at tip

**SILVERLEAF NIGHTSHADE**  
(*Solanum elaeagnifolium*)

- **LIFE CYCLE:** Perennial
- **COTYLEDONS:** Lanceolate  
  - Hairy  
  - Green on upper surface, light green on lower surface  
  - Covered with hair
- **LEAVES:** Alternate  
  - Linear to oblong  
  - Green above and silvery green beneath  
  - Margin entire to lightly serrated
- **OTHER:** Hypocotyl - densely covered with short coarse hairs  
  - Often purple tinged

**HORSENETTLE**  
(*Solanum carolinense*)

- **LIFE CYCLE:** Perennial
- **COTYLEDONS:** Ovate, narrow  
  - Glossy green above  
  - Smooth on both surfaces  
  - Hairy along margins  
  - Deep green above and pale beneath  
  - Covered on both surfaces with stiff hairs to prickles
- **LEAVES:** Alternate  
  - Oblong to oval  
  - Marginally undulate
- **OTHER:** Potato odor when crushed  
  - Hypocotyl tough, often purple tinged, densely covered with short stiff hair

**CUTLEAF GROUNDCHERRY**  
(*Physalis angulata*)

- **LIFE CYCLE:** Annual
- **COTYLEDONS:** Oval  
  - Glabrous
- **LEAVES:** Alternate  
  - Glabrous  
  - Pinnate venation  
  - Emerging leaves cupped at base of emergence  
  - Serrated leaf margins
- **OTHER:** Often confused with Nightshade species  
  - Stem hairy  
  - Tap root present

**ECLIPTA**  
(*Eclipta prostrata*)

- **LIFE CYCLE:** Annual
- **COTYLEDONS:** Spatulate  
  - Glabrous, midvein evident on lower surface only
- **LEAVES:** Opposite  
  - Pinnate venation  
  - Midvein evident on both surfaces as a slight ridge  
  - Lower surface hairy  
  - Leaf margin slightly serrated toward leaf apex
Broadleaf Identification

**HEMP SESBANIA**  
(*Sesbania exaltata*)  
**LIFE CYCLE:** Annual  
**COTYLEDONS:** Oblong  
**Glabrous**  
**LEAVES:** Alternate  
First leaf simple  
Second leaf pinnately compound  
Glabrous

**TRUMPETCREEPER**  
(*Campsis radicans*)  
**LIFE CYCLE:** Perennial  
**COTYLEDONS:** Kidney  
**Hairy on margin**  
**LEAVES:** Opposite  
Finnate venation  
Slightly hairy  
Coarsely toothed  
Leaflets green on the upper surface and light green on the lower surface  
**OTHER:** Stem with purple tinges

**WOOLLY CROTON**  
(*Croton capitatus*)  
**LIFE CYCLE:** Annual  
**COTYLEDONS:** Round  
**LEAVES:** Alternate  
Glabrous  
Pinnate Venation  
Entire  
**OTHER:** Stems densely hairy

**VELVETLEAF**  
(*Abutilon theophrasti*)  
**LIFE CYCLE:** Annual  
**COTYLEDONS:** Round  
**Sparsely hairy**  
**LEAVES:** Alternate  
Round with pointed apex  
Toothed Margins  
Velvety hairs  
**OTHER:** Stem hairy

**WILD POINSETTIA**  
(*Euphorbia heterophylla*)  
**LIFE CYCLE:** Annual  
**COTYLEDONS:** Lanceolate  
**LEAVES:** Alternate  
Smooth leaf margins  
Pinnate venation  
**OTHER:** Stem exudes milky juice when crushed
Broadleaf Weed Identification

Redweed (*Melochia corchorifolia*)
- Synonyms: chocolate weed, English teaweed
- Reddish stem
- Flowers in a head with a pubescent appearance
- Flowers are small and pink to lavender
- Branches elongate quickly with congested new growth at axils and ends
- Various shaped leaves
- Double dentated serations on leaf edges

Texasweed (*Caperonia palustris*)
- Synonyms: Mexicanweed
- Stout annual with small spines
- Leaves elongated with prominent veins
- Leaves have single serations along edges

Smellmelon (*Cucumis melo*)
- Stout annual vine
- Similar in appearance and smell to cucumbers
- Stem covered with small spines
- Tendrils present
- Flowers small and yellow
- Fruit is small, elliptical melon with dark green stripes

Balloonvine (*Cardiospermum halicacabum*)
- Vining plant with tendrils
- Leaves are compound with 3 to 5 deeply indented leaflets
- Fruit similar to groundcherry (chinese lantern)

Scouringrush (*Equisetum hymale*)
- Synonyms: equisetum, poppingweed, dragonweed, dragontail
- A primitive plant common on ditchbanks
- Very deep rhizomes
- No leaves
- Looks like asparagus

Alligatorweed (*Alteranthera philoxeroides*)
- Stem very fleshy
- Leaves opposing and also fleshy
- Prominent midvein
- Leaves wider at base and wrap around the stem
- Small inconspicuous flowers
- An aquatic with a hollow stem
- Sterile seed produced