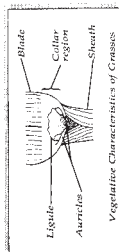


# WEED IDENTIFICATION

# GRASS AND GRASSLIKE WEED VEGETATIVE KEY

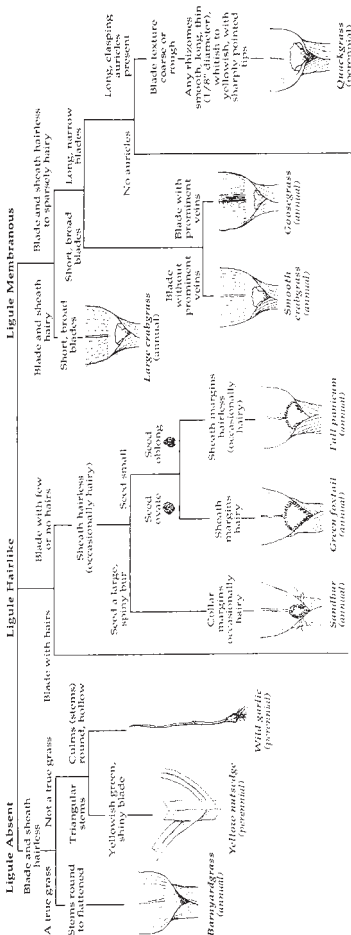
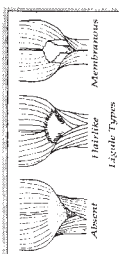


## Grass and Grasslike Weed Vegetative Key

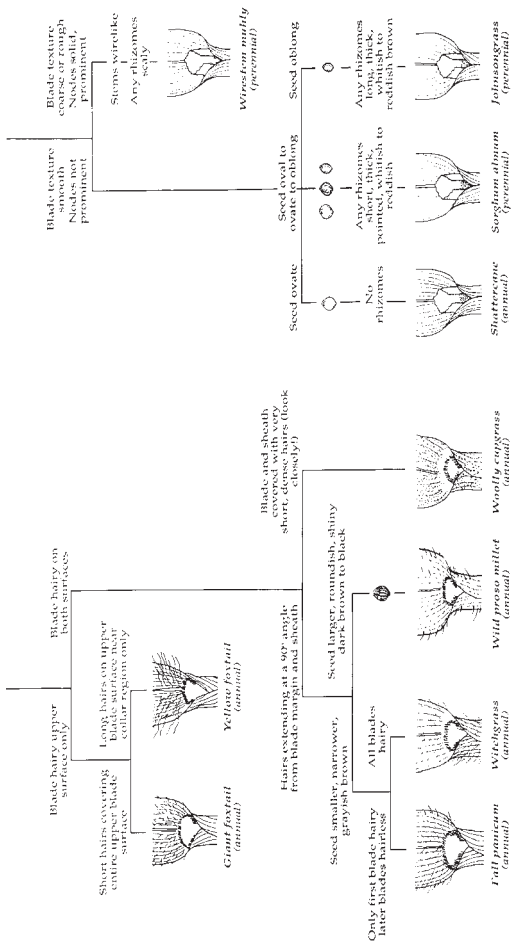
Prepared by C. Diane Anderson, and other Weed Science Extension Specialists, Cooperative Extension Service, University of Illinois at Urbana-Champaign.

Available from Vocational Agriculture Service, 1401 S. Maryland Drive, Urbana, Illinois 61801 217/333-3871.

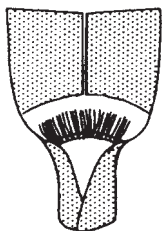
Z840.1



# GRASS AND GRASSLIKE WEED VEGETATIVE KEY (CONT.)



## ANNUAL GRASS WEEDS

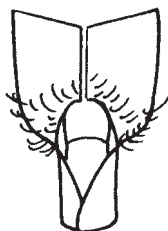
**FALL PANICUM***(Panicum dichotomiflorum)*

Sheath: slightly flattened,  
smooth to occasion-  
ally hairy

Blade: smooth, dull above &  
glossy below, under-  
side may have hair

Ligule: fringe of hairs

Auricles: absent

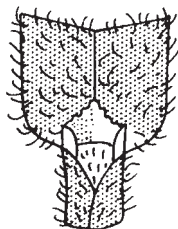
**SMOOTH CRABGRASS***(Digitaria ischaemum)*

Sheath: flattened & smooth,  
smooth margin

Blade: long hairs near ligule,  
rough margin

Ligule: long, membranous,  
rounded

Auricles: absent

**LARGE CRABGRASS***(Digitaria sanguinalis)*

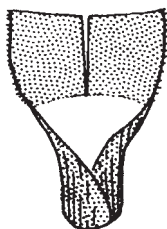
Sheath: flattened with long  
scattered hairs

Blade: sparse hairs above &  
below

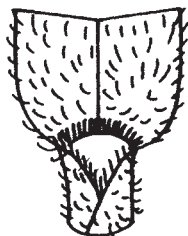
Ligule: membranous with  
notched margins

Auricles: absent

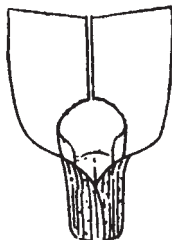
## ANNUAL GRASS WEEDS (CONT.)

**BARNYARDGRASS***(Echinochloa crus-galli)*

- Sheath: smooth & flattened  
 Blade: rough margin, prominent mid-vein  
 Ligule: absent  
 Auricles: absent

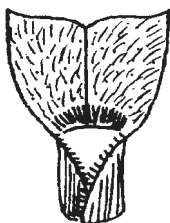
**WITCHGRASS***(Panicum capillare)*

- Sheath: slightly flat, densely hairy  
 Ligule: short fringe of hairs  
 Blade: densely hairy above and below  
 Auricles: absent

**SHATTERCANE***(Sorghum bicolor)*

- Sheath: rounded and smooth  
 Ligule: long, membranous, rounded. May be jagged or ciliated.  
 Blade: smooth but occasionally sparse hairs above  
 Auricles: absent

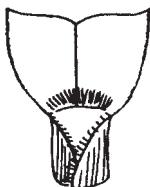
## ANNUAL GRASS WEEDS (CONT.)

**GIANT FOXTAIL***(Setaria faberi)*

- Sheath: round, hair on margin  
 Blade: short hairs covering  
 upper surface  
 Ligule: fringe of hairs  
 Auricles: absent

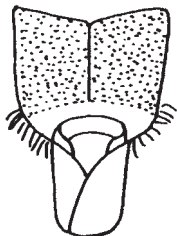
**YELLOW FOXTAIL***(Setaria glauca)*

- Sheath: flat, smooth margins  
 Blade: few long hairs near  
 base  
 Ligule: fringe of hairs  
 Auricles: absent

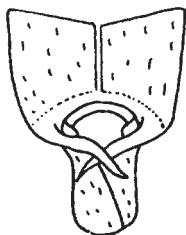
**GREEN FOXTAIL***(Setaria viridis)*

- Sheath: round, hair on margins  
 Blade: hairless  
 Ligule: fringe of hairs  
 Auricles: absent

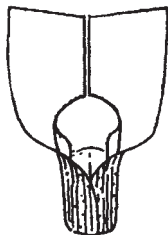
## PERENNIAL GRASS WEEDS

**WIRESTEM MUHLY***(Muhlenbergia frondosa)*

- Sheath: flattened, smooth  
 Ligule: short, membranous, toothed margins  
 Blade: rough above, below, and on margins  
 Auricles: absent

**QUACKGRASS***(Elytrigia repens)*

- Sheath: rounded, smooth to sparsely hairy  
 Blade: rough above, below, & on margins  
 Ligule: short, membranous  
 Auricles: long, slender, clasping.

**JOHNSONGRASS***(Sorghum halepense)*

- Sheath: rounded to flattened, smooth  
 Blade: smooth to sparsely hairy above and smooth below  
 Ligule: long, rounded, possibly ciliated

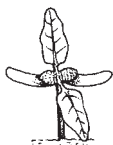
## SUMMER ANNUAL BROADLEAF WEEDS

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

Cotyledon: lanceolate, waxy & dark green.

Leaf: rough, triangular, with slightly lobed margin. First leaves are opposite, others are alternate.

Stem: erect, ridged, rough, hairy, and purple-spotted.

**COMMON LAMBSQUARTERS***(Chenopodium album)*

Cotyledon: small but linear.

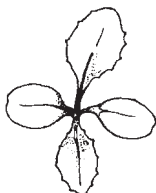
Leaf: white mealy-coating both above and below, especially on young leaves. First true leaves are opposite, others are alternate with triangular shape and serrated.

Stem: erect, smooth, grooved, strong and sometimes purple at the nodes.

## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### PRICKLY LETTUCE

(*Lactuca serriola*)



Cotyledon: spatulate with slight indentation at tip, hairy.

Leaf: prickly spines along underside of midrib, first leaves are spatulate, later becoming deeply lobed with weak spines, hairy.

Stem: hollow with a milky juice.

### JIMSONWEED

(*Datura stramonium*)



Cotyledon: smooth and lanceolate, whole seedling plant has a pungent odor when crushed.

Leaf: smooth, waxy, multipointed margins.

Stem: hairy hypocotyl, smooth and tough.

## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### IVYLEAF MORNINGGLORY

(*Ipomoea hederacea*)



- Cotyledon: smooth, shiny, and butterfly shaped.  
 Leaf: alternate, tall and upright hairs, on both sides, 3-lobed giving an ivy shape.  
 Stem: thin, hairy, vine-like.

### TALL MORNINGGLORY

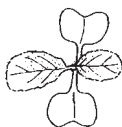
(*Ipomoea purpurea*)



- Cotyledon: smooth, shiny and butterfly shaped.  
 Leaf: alternate, dense, short appressed hairs on both sides, although less below, and broadly heart-shaped.  
 Stem: thin, dense, very short hairs, vine-like.

## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### WILD MUSTARD (*Brassica kaber*)



- Cotyledon: kidney-shaped and smooth.  
 Leaf: alternate and hairy, lower leaves are lobed, have petioles and vary in size and shape, upper leaves are smaller, have no petioles and are not as lobed and irregular.  
 Stem: hairy near base.  
 Other: four yellow petals on flowers.

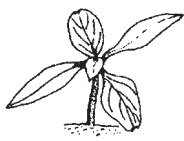
### EASTERN BLACK NIGHTSHADE (*Solanum ptycanthum*)



- Cotyledon: small, ovate, green both surfaces.  
 Leaf: waxy appearance on top, purple below, some hair and small lobes.  
 Stem: erect, smooth, fleshy, weak.

## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### REDROOT PIGWEED (*Amaranthus retroflexus*)



- Cotyledon: linear, hairless.  
 Leaf: alternate, slightly notched/indented at tip.  
 Stem: erect, short hairs, red to purplish color on stems and petiole.

### COMMON RAGWEED (*Ambrosia artemisiifolia*)



- Cotyledon: oval to spatulate with grooved petioles, and purple undersides.  
 Leaf: lots of variation, lacy appearance, sometimes hairy below, smooth above, opposite early but turning alternate.

## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### GIANT RAGWEED (*Ambrosia trifida*)



- Cotyledon: oval to spatulate with grooved petioles, similar to common ragweed cotyledons but three to four times larger, with green undersides instead of purple.
- Leaf: rough, hairy, deeply lobed—3 to 5 lobes, sometimes with no lobes, opposite early but turning alternate.
- Stem: erect, rough, hairy.

### PENNSYLVANIA SMARTWEED (*Polygonum pennsylvanicum*)



- Cotyledon: lanceolate with rounded tips.
- Leaf: alternate, smooth edges, may or may not have purple thumbprint.
- Stem: erect, smooth, ocrea at base of petiole, no hair on ochrea.

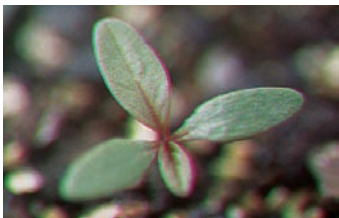
## SUMMER ANNUAL BROADLEAF WEEDS (CONT.)

### VELVETLEAF (*Abutilon theophrasti*)



- Cotyledon: one round and one heart-shaped cotyledon, both hairy.
- Leaf: densely hairy (possessing a velvety texture), heart shaped.
- Stem: erect, densely hairy.

### COMMON/TALL WATERHEMP (*Amaranthus rudis/tuberculatus*)



- Cotyledon: linear and hairless.
- Leaf: alternate, no hair, leaf is longer than it is wide, making it more linear than pigweeds, usually a wavy leaf margin, and no notch at tip.
- Stem: erect, no hair, and varying color from green to red.

## WINTER ANNUAL BROADLEAF WEEDS

## COMMON CHICKWEED

*(Stellaria media)*

Cotyledon: broadly ovate, pale green.

Leaf: hairless, small, pale green, pointed at tip.

Stem: erect, stems & petioles sparsely hairy, hypocotyl red.

## PURPLE DEADNETTLE

*(Lamium purpureum)*

Cotyledon: round to square, no hair, petiole shorter than henbit, a white point at tip, cotyledon lobes at petiole usually touch each other.

Leaf: opposite, twice the amount and length of hair compared to henbit, serrated leaf margin, leaves always have petioles, round to triangular shaped leaves.

Stem: erect to prostrate, square, twice the amount and length of hair compared to henbit.

## WINTER ANNUAL BROADLEAF WEEDS (CONT.)

## HENBIT

*(Lamium amplexicaule)*

- Cotyledon: round to square, no hair, petiole longer and more vertical than deadnettle, a white point at tip, cotyledon lobes at petiole usually do not touch each other creating a square at the petiole.
- Leaf: opposite, half the amount and length of hair compared to deadnettle, serrated leaf margin, leaves have petioles as a seedling, but do not have petioles when flowering begins, round-shaped leaves.
- Stem: erect to prostrate, square, half the amount and length of hair compared to deadnettle.

## MARESTAIL/HORSEWEED

*(Conyza canadensis)*

- Cotyledon: smooth and green
- Leaf: often hairy, numerous, linear, crowded together around stem, later alternate.
- Stem: erect, bristly hairs, strong.

## WINTER ANNUAL BROADLEAF WEEDS (CONT.)

**FIELD PENNYCRESS***(Thlaspi arvense)*

Cotyledon: round, hairless.

Leaf: no hair, alternate, margins of first leaves are serrated to smooth, later margins are more lobed, stem leaves clasp the stem, when crushed an odor is produced.

Stem: hairless, basal rosette is formed first followed by an erect stem.

**SHEPHERD'S-PURSE***(Capsella bursa-pastoris)*

Cotyledon: oval to spatulate.

Leaf: similar to cotyledons when young, changing to variable in shape with lobed or toothed and undulating margins, hairy.

Special: rosette in the vegetative stage, rosette with erect stem in the reproductive stage.

Other: seed pods resemble a purse.

## BIENNIAL BROADLEAF WEEDS

## WILD CARROT

*(Daucus carota)*

- Cotyledon: long, linear, smooth.
- Leaf: compound, lacy, hairy, smells like a carrot.
- Special: rosette the first year, second year grows a hairy stem, then flowers and dies.
- Other: sometimes referred to as Queen Anne's Lace.

## POISON HEMLOCK

*(Conium maculatum)*

- Cotyledon: oblong to elliptical shaped, hairless, veins very prominent.
- Leaf: finely divided, although each division is wider than wild carrot, no hair, petioles may have purple spots, alternate, when crushed a musty odor is present.
- Stem: hairless, purple spots on erect stem, basal rosette formed first followed by an erect stem.

## PERENNIAL BROADLEAF WEEDS

### DANDELION

(*Taraxacum officinale*)



Plants can sprout from seed or below ground roots. Cotyledons spatulate to oblong-shaped with no hair. Leaves are variously lobed, and emerge in a rosette. Little or no hair on leaves. A yellow ray of flowers appears on a long fleshy hollow stem.

### CURLY DOCK

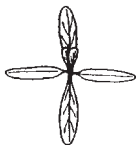
(*Rumex crispus*)



It is a simple perennial, so it can emerge from seed or tap root. As a seedling the cotyledons are linear to oblong and hairless. All nodes have a prominent ocrea. Leaves are linear with a wavy leaf margin, hairless, and alternate. Stems are short early appearing as a rosette and later produce an erect stem. Stem leaves are usually shorter than basal leaves. Leaves and stems often have reddish spots on them.

## PERENNIAL BROADLEAF WEEDS (CONT.)

## HEMP DOGBANE

*(Apocynum cannabinum)*

Reproducing by seed or long horizontal rootstock. Leaves are oblong to elliptical, opposite and erect. Stems are woody and often red at the base, branching and exude a milky substance when broken. No hair on leaves or stem.

## COMMON MILKWEED

*(Asclepias syriaca)*

Similar to hemp dogbane, except the stem does not branch. The leaves are larger and more elliptical than hemp dogbane and all plant parts exude a milky substance when broken. Underside of leaves are hairy.

**PERENNIAL BROADLEAF WEEDS (CONT.)****COMMON POKEWEED***(Phytolacca americana)*

Plants can develop from seed or a large poisonous taproot. Leaves appear folded and crinkled when emerging from the soil but soon develop into large simple leaves. Plants have a smooth red stem which can reach a height of 9 feet. Sometimes called “inkberry” because of its distinctive shiny dark-purple berries.

**CANADA THISTLE***(Cirsium arvense)*

Can emerge from seeds or creeping roots, beginning as a rosette but quickly elongating a stem which branches only at the top. Leaves clasp the stem, have crinkled margins, and lobes which end in spiny tips. The stem has no spines, but does have hair. Flowers are purple.