

Weed Identification Guide

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A supplement to *Landscape Management* and *Golfdom* magazines

WEED IDENTIFICATION GUIDE

INTRODUCTION

Successful weed identification is a combination of timing and user-friendly data. Timing in relation to the maturity of the plant (the older, the easier) and user-friendly data, meaning an identification guide that is designed to facilitate the identification process. Both were considered in the design of this guide.

Timing: When identifying either monocot (grassy) weeds or dicot (broadleaf) weeds, studying a mature or flowering sample is very important. All of the most easily identifiable traits—flowers, seeds, leaves and roots—are present then, so take some time to find a mature specimen to examine.

User-friendly data: For ease of use, this guide concentrates on those plant characteristics that differentiate one species from another rather than those traits each has in common. These differences are represented visually with added text to refine the distinctions between similar plants.

Understanding the terms used in this guide

Understanding the parts of a grass plant are essential to accurately identify monocot weeds. In the example shown, pay particular attention to the seedhead, the ligule and the collar. They are the plant parts which have the most differentiating traits.

Abbreviations

aka = “also known as” (different common names are popular in different parts of the U.S.)

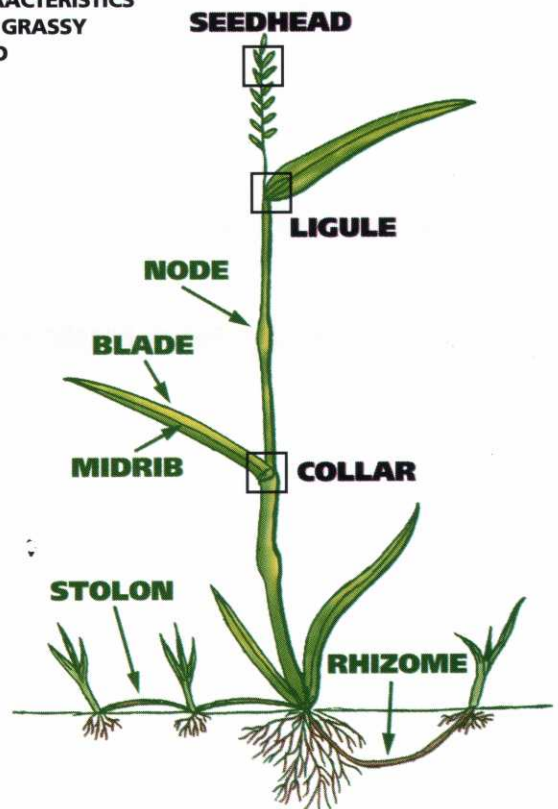
Further help

The use of this guide was designed to help managers substantially reduce the number of possible weed species identifications. However, variations in a plant’s vegetative characteristics or distribution may require that managers forward samples to their local extension service for confirmation. BASF’s local technical representatives can also be contacted for further help at 800/545-9525 or on the Web at www.turfacts.com.

Sources

Information was compiled from the Scotts “Guide to the Identification of Grasses,” the Southern Weed Science Society’s “Weed Identification Guide,” A.S. Hitchcock’s “Manual of the Grasses of the United States” and the extension department at Cornell University.

STRUCTURAL CHARACTERISTICS OF A GRASSY WEED



Leaf in bud:



folded

rolled

Collar:



broad

medium

narrow

Ligule:



tall

medium

short

absent

hairy

Monocot weeds

Because of natural variations within grasses and differences that occur under varying environments, the illustrations included herein are meant to be representative but not definitive. Users need to consider all of the information—seed-head, in-bud, ligule, collar, descriptive text, tips and distribution—to accurately identify a weed.

As you proceed, keep in mind that you should not rely on an individual characteristic to be conclusive, rather total the number of similar characteristics between the sample and the guide to help narrow the number of possibilities.

The monocot weed species illustrated herein were selected for their likelihood of appearing in turf and their latest reported distribution.

Identifying a monocot weed

Once a mature sample has been selected, check each of the listed plant parts as follows:

- seedhead—size, shape, openness and number, size and shape of branches and seeds
- in-bud—cut through a leaf stem and determine if it is folded or rolled
- ligule—remove a leaf from its stem and with a hand lens check the size, shape and texture
- collar—lay the leaf flat, underside up and check the size, shape and top and bottom edges
- tips—check for additional vegetative plant characteristics
- distribution—confirm that this weed species has been identified in your state

ANNUAL BLUEGRASS

aka *Poa annua*, *poa*

DIAGNOSTIC TIPS:

Very persistent self-seeding winter annual or biennial

Short, narrow leaf blades with parallel edges and boat-shaped tip

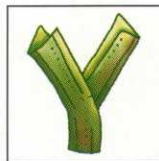
Some leaf blades wavy

Germinates in late summer/early fall

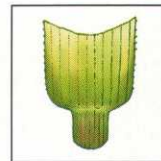
Shallow-rooted, dying under heat or moisture stress



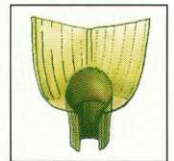
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
folded



Collar:
narrow
top pinched



Ligule:
medium
pointed

DISTRIBUTION:



■ *Indigenous states*

MONOCOTS *Annual*

GOOSEGRASS aka *silver crabgrass*

A narrow-leaved
dense prostrate
summer annual

Leaf color is
darker green
than most annu-
al monocots

Collar area has
sparse long hairs

Seedhead has 2-13
branches which are white
to silver in color



BARNYARDGRASS aka *billion dollargrass*, *watergrass*

A very wide-bladed semi-
prostrate
summer annual

Stems may be branched
at nodes and frequently
bent upright

Seedhead has multiple
short perpendicular
branches

Seeds are coarse with short
burrs



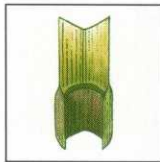
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
folded

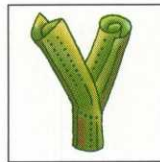


Collar:
broad
continuous

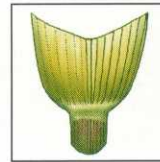


Ligule:
short
toothed & divided

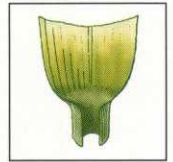
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar width:
broad



Ligule height:
absent

DISTRIBUTION:



■ *Indigenous states*

DISTRIBUTION:



■ *Indigenous states*

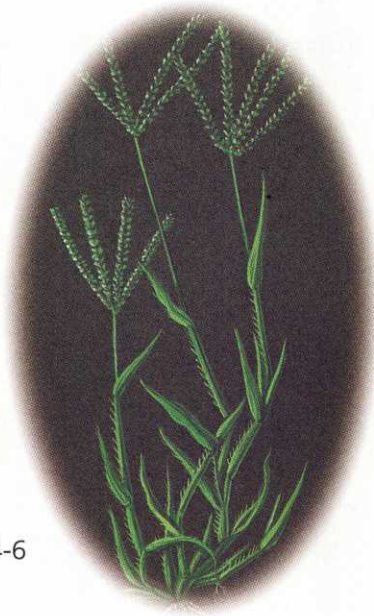
LARGE CRABGRASS aka *hairy fingergrass*

A wide-bladed prostrate summer annual

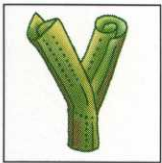
Leaves are hairy on both surfaces with a prominent midrib

Older nodes are often branched and rooted where contacting soil

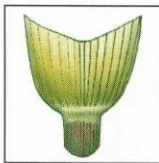
Seedhead open with 4-6 slender branches



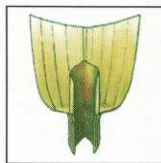
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
broad
top pinched



Ligule:
tall
toothed & pointed

DISTRIBUTION:



Indigenous states

RESCUEGRASS aka *prairiegrass, rescue brome*

A wide-leaved winter annual or biennial

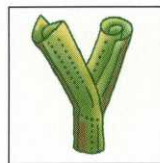
Leaves are hairy at edges and on upper surface

Seedhead is open with bending slender side branches

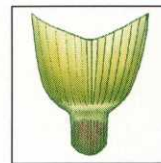
Seed clusters look like cultivated wheat or rye



STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
broad
bottom pinched



Ligule:
tall
toothed & pointed

DISTRIBUTION:



Indigenous states

MONOCOTS *Annual*

SMOOTH CRABGRASS aka *fingergrass*

A narrow-leaved prostrate summer annual

Leaves are not hairy except sparsely haired in collar area

Stems branch at nodes, but do not root

Seedhead has 2-6 slender upright branches



STINKGRASS

A narrow-leaved annual

Leaves are dull on upper surface and glossy on underside

Collar area has sparse long hairs

Plant has a very disagreeable odor when cut or damaged



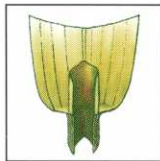
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

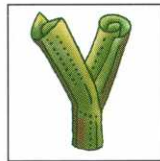


Collar:
broad
bottom pinched

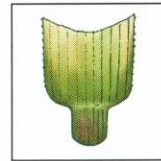


Ligule:
tall
rounded

STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
narrow
continuous



Ligule:
hairy

DISTRIBUTION:



■ *Indigenous states*

DISTRIBUTION:



■ *Indigenous states*

MONOCOTS *Annual*

WITCHGRASS

An erect wide-bladed summer annual

Leaves are densely haired on both surfaces

Emerging seedhead is fountainlike

Mature seedhead is large and very open with slender branches carrying single seeds

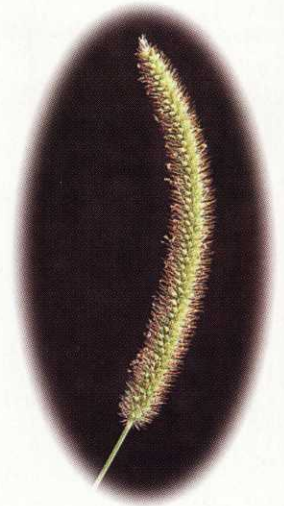


YELLOW FOXTAIL

An erect wide-bladed summer annual

Upper leaf surface has long hairs in collar area

Leaves are often slightly twisted in an open spiral



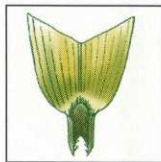
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

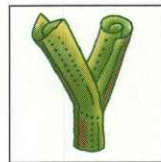


Collar:
broad
continuous

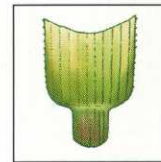


Ligule:
hairy

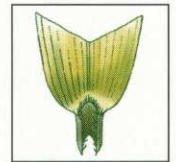
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
narrow
top pinched



Ligule:
hairy

DISTRIBUTION:



■ *Indigenous states*

DISTRIBUTION:



■ *Indigenous states*

MONOCOTS *Annual*

DOWNY BROME

aka *drooping brome*grass

An erect narrow-bladed winter annual

Leaves have dense soft hairs on both surfaces

Seedhead is open with drooping branches

Seed clusters are tufted and look like cultivated wheat or rye



FALL PANICUM

aka *smooth witchgrass*

A very wide-bladed mostly prostrate summer annual

Leaves may be hairy on upper surface, are glossy beneath and sharply pointed

Stems branched at nodes and bent upright

Seedhead is open with multiple very slender branches



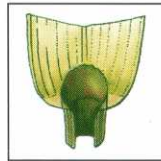
STRUCTURAL CHARACTERISTICS:



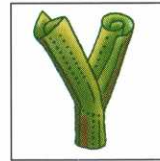
Leaf in bud:
rolled



Collar:
narrow
bottom pinched



Ligule:
medium
toothed & pointed



Leaf in bud:
rolled



Collar:
broad
continuous



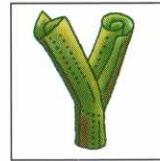
Ligule height:
hairy

DISTRIBUTION:



■ *Indigenous states*

STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

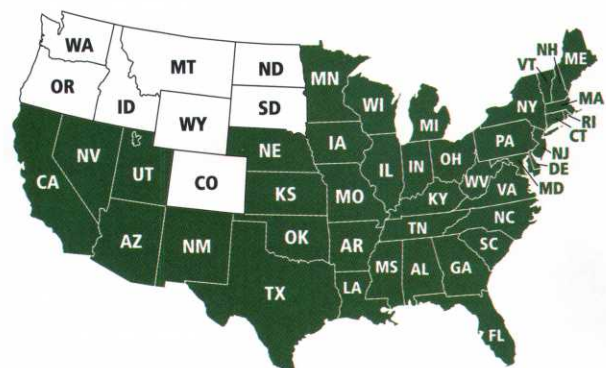


Collar:
broad
continuous



Ligule height:
hairy

DISTRIBUTION:



■ *Indigenous states*

MONOCOTS *Perennial*

QUACKGRASS

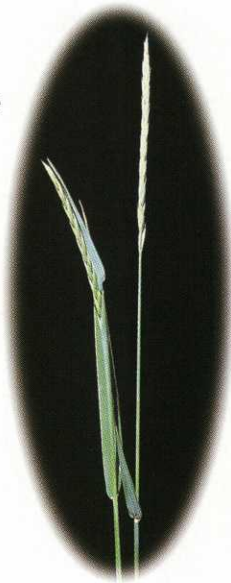
An erect narrow-leaved aggressive perennial

Leaf is rough on upper surface

Collar area has claw-like fleshy appendages (auricles) that clasp stem

Plant develops multiple rhizomes from base of plant

Seedhead is a single slender spike



JOHNSONGRASS

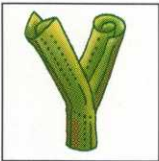
A very wide-bladed aggressively spreading prostrate perennial

Collar area has short hairs on upper surface near ligule

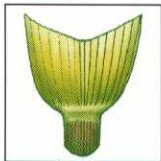
Spreads by multiple ¼-inch-thick rhizomes



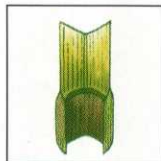
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

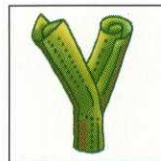


Collar:
broad
continuous

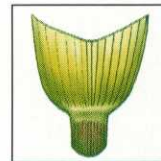


Ligule:
short

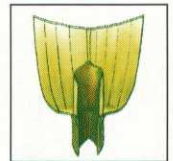
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
broad
bottom pinched



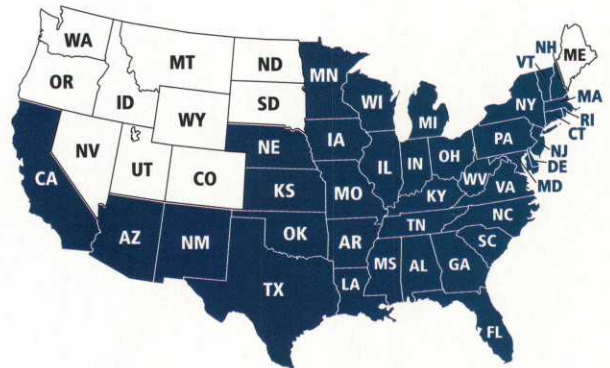
Ligule:
tall
with hairs

DISTRIBUTION:



■ *Indigenous states*

DISTRIBUTION:



■ *Indigenous states*

MONOCOTS *Perennial*

NIMBLEWILL

A very short-leaved stemmy spreading perennial herb

Leaves are short

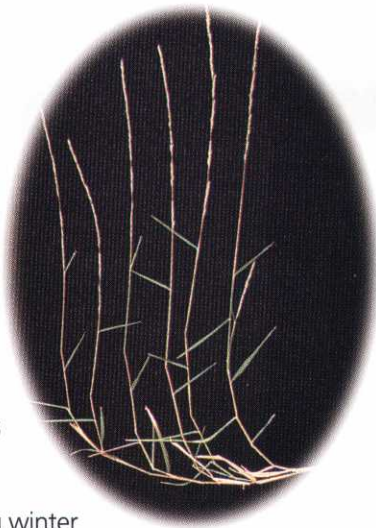
Spreads by very slender stolons

On frequently mowed sites, plant often looks stemmy in fall

Turns off-white during winter

Collar area has long hairs at leaf edge

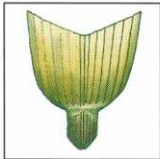
Seedhead has single, very slender spike



STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

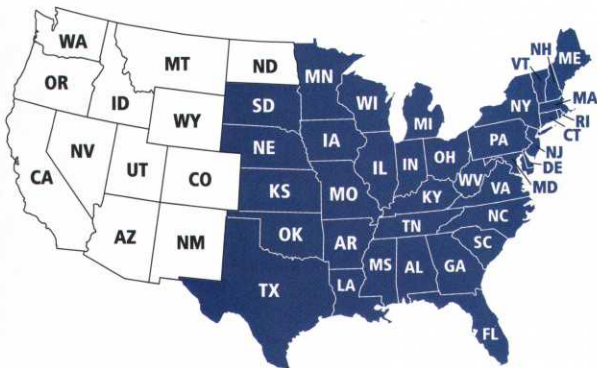


Collar:
medium
top pinched



Ligule:
short

DISTRIBUTION:



Indigenous states

KNOTGRASS

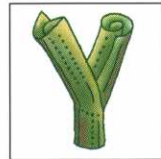
A prostrate spreading perennial

Collar area has short hairs at leaf edges and near ligule

Seedhead has two slender upright branches



STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled

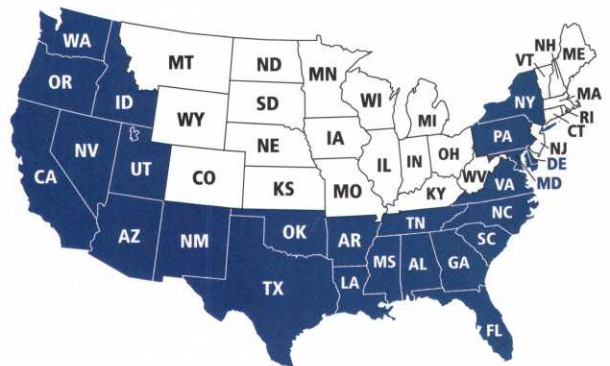


Collar:
broad
bottom pinched



Ligule:
tall
rounded

DISTRIBUTION:



Indigenous states

MONOCOTS *Perennial*

YELLOW NUTSEdge aka *yellow nutgrass*

A very rapidly growing erect perennial herb

Spreads by rhizomes with underground tubers

Leaves are v-shaped with a prominent midrib tapering to a sharp point

Stems are triangular

Seedhead is semi-open, carrying yellow seeds



PURPLE NUTSEdge aka *purple nutgrass*

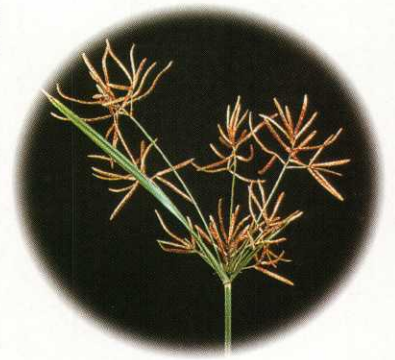
Rapidly growing erect perennial herb

Spreads by rhizomes with underground tubers

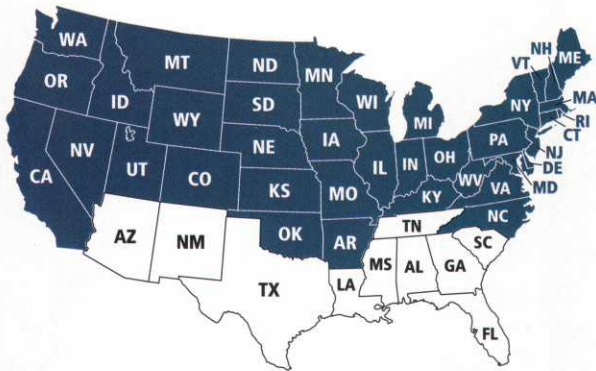
Stems are triangular

Leaves are v-shaped, tapering to a sharp point

Seedhead is open, carrying dark or purple seeds

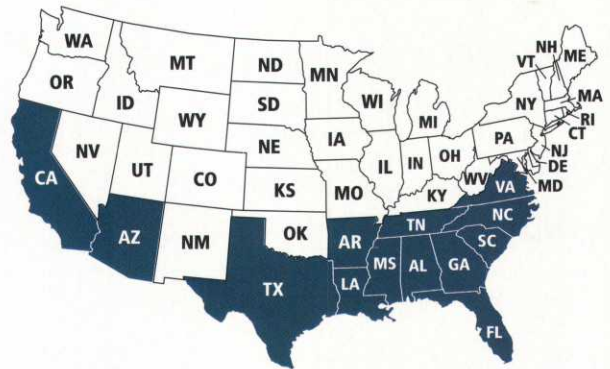


DISTRIBUTION:



Indigenous states

DISTRIBUTION:



Indigenous states

MONOCOTS *Perennial*

KIKUYUGRASS

A low growing perennial that creeps with both stolons and rhizomes.

Flat leaf blades on light green leaves

Seedhead has 2 to 4 spikelets in upper sheath

Seeds are dark brown with large scars at the rounded base



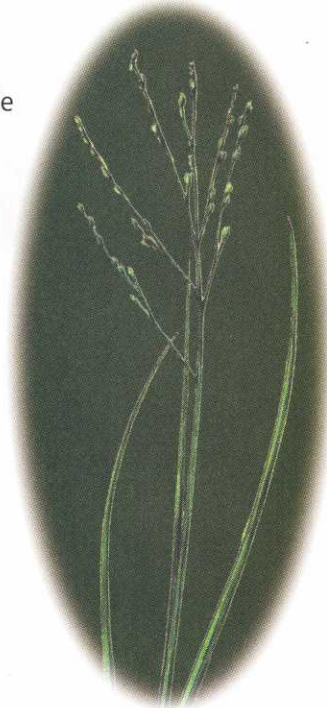
TORPEDOGRASS

Aquatic grass with small leaves 1/16- to 1/4-in. wide

Leaves have hairs on top and often roll inward

Stems are stiff; often 1- to 3-ft. tall

Grows from underground rhizomes with hard, pointed tips



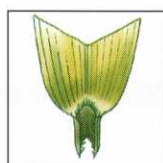
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
folded

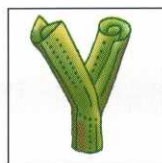


Collar:
medium
w/ fine hairs

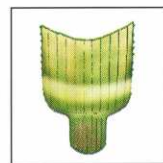


Ligule:
hairy

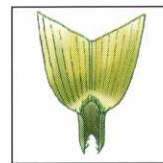
STRUCTURAL CHARACTERISTICS:



Leaf in bud:
rolled



Collar:
narrow
(a pale band)



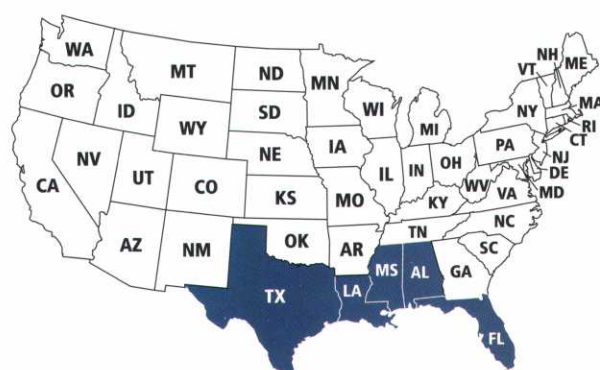
Ligule:
hairy

DISTRIBUTION:



Indigenous states

DISTRIBUTION:



Indigenous states

DICOT WEEDS

In a universe of hundreds of dicot weeds, a limited number can tolerate repeated mowing of managed turf sites. In order to provide a broader representation of turf weeds, we have included a select number of these dicot weeds. Those presented herein were chosen for their ability to survive in turf, often as a continuing pest. Several of the species can persist even at fairly short mowing heights; others are active in cool weather.

Identifying a dicot weed

Unlike the prototypical size and shape of monocot weeds, the shape and vegetative growth habits of many dicot weed groups are visually unique. Also, the distinctive traits of monocots—seedheads, ligules and collars—are not always present, making visual identification more important.

We suggest the following process for identifying dicot weeds:

- Look for a sample flower if available
- Leaves: check for identifying characteristics (size, shape, notches, venation or coloration)
- Stems: check how the leaves are held (opposite or alternate), shape and color
- Flowers: check color, size and composition (single, double or compound)
- Location: take note of the conditions in which the weed is growing (shade, compacted soil, etc.)
- Distribution: confirm that this weed species has been identified in your state

DANDELION

aka *common dandelion*

A large rosette-type perennial herb

Leaves growing from plant base are long, narrow and deeply notched

Points of leaf lobes point backward toward base of plant

Has large, slightly mounded yellow flowers on hollow stems

Mature seedhead is a round puffball with seeds that are easily dislodged



DISTRIBUTION:



Indigenous states

HENBIT

aka *dead-nettle*

A mostly erect winter annual or biennial

Leaves are similar to mint: rounded, toothed, heavily veined with soft hairs on top, held opposite on square stems

Single flowers are trumpet-shaped, pale purple and project from ends of stems

Seen primarily in spring, dying with heat



DISTRIBUTION:



Indigenous states

DICOTS

KNOTWEED

aka *prostrate knotweed*

- A persistent low-growing summer annual

- Prefers compacted soil of pathways and along drives

- Leaves are blue-green, up to 1 inch long and ¼-inch wide

- Small single white to pink flowers are found at the junction of the leaves and the stem



DISTRIBUTION:



PURSLANE

aka *common purslane*

A prostrate, succulent summer annual

Leaves are shiny green, wedge-shaped, thick and up to 1 inch long

Stems are thick, fleshy and purple to brown in color

Plants are are very drought-resistant

Small, single yellow flowers may appear in the leaf clusters at end of stems



DISTRIBUTION:



