

# Grass Identification

## Turfgrass and Weedy Grasses

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## Why Identify Grasses?

Understand Management Requirements for Different Species

- water, fertilizer, mowing heights




Bluegrass, fescues, ryegrass      Bermudagrass, zoysia, paspalum

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## Why Identify Grasses?

### Management Requirements

- water, fertilizer, mowing heights

### Pest Management

- pest identification
- use pesticides according to label

**GENERAL INFORMATION**

**Use:** Herbicide for the control of actively growing annual and perennial broadleaf weeds and kikuyugrass in perennial bluegrass, perennial ryegrass, or tall fescue ornamental turf including these turfgrasses in golf courses.

**Do not use on other turfgrass species such as bahiagrass, bentgrass, Bermudagrass, centipedegrass, St. Augustinegrass, or zoysiagrass unless turfgrass injury can be tolerated.**



Necrotic ring spot disease on Kentucky bluegrass.  
 This disease affects ONLY Kentucky bluegrass – but not tall fescue or perennial ryegrass.

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## Why Identify Grasses?

### Management Requirements

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### Pest Management

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- use pesticides according to label

### Weed Control

- effective control products
- correct rates
- proper application timing



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## North Carolina State University

<http://turfid.ncsu.edu/>

Website; no phone apps yet available  
 Focus is southeastern US, but still works well for Colorado grasses  
 Good botanical descriptions for using key



## University of Missouri

<https://weedid.missouri.edu/weedKey.cfm>

FREE phone apps for both iPhone and Android systems  
 Ag-oriented, but still addresses lawn and garden weeds  
 Over 440 weeds in database  
 Good botanical descriptions for using the key

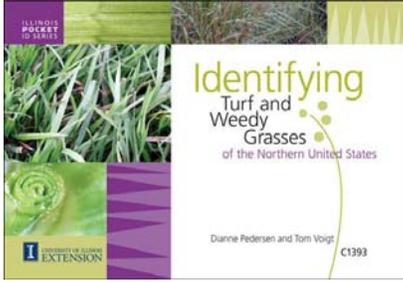


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## University of Illinois "Identifying Turf and Weedy Grasses of the Northern United States"

<https://pubsplus.illinois.edu/>

In search box type "turf ID"  
 Cost \$11.75, including postage

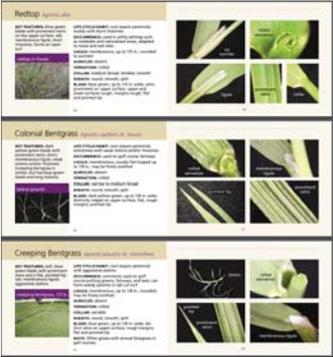


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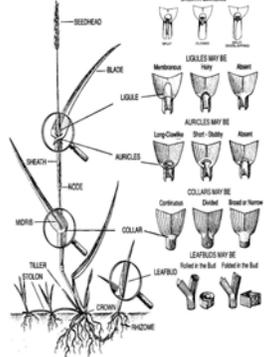
Book contains excellent photos of important plant parts used for grass identification

Contains nearly every grass species used for lawns in Colorado, and most weedy grasses as well.

This book uses a dichotomous key, making grass identification relatively easy to do – with practice.



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All turfgrass/weedy grass identification keys use botanical characteristics and structures for distinguishing one grass from another.

The grass leaf (including both the leaf BLADE and the leaf SHEATH) possesses structures and characteristics that make it fairly easy (with practice!) to tell one grass species from another.

Because these structures are SMALL, the use of a good eye lens/magnifier is essential!

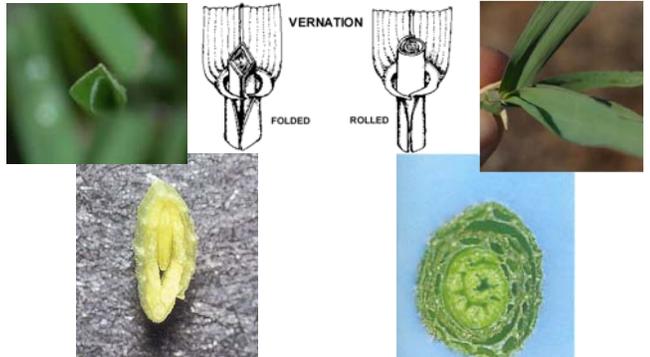
Other characteristics like formation of seedheads and formation of stolons and/or rhizomes can also be useful for ID purposes.

While intimidating at first – because the plant parts are small and look very similar – grass identification can be mastered with careful, persistent practice.

Successful ID relies on having good samples – including any belowground (rhizomes) or aboveground (stolons) stem growth.

Living samples are easier to identify, but dead/dormant grass can also be identified correctly.

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**VERNATION**

FOLDED      ROLLED

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**Rolled vernation**  
Leaf margin of the YOUNGEST leaf emerging (from the top of the shoot) wrapping around itself, in a spiral fashion



**Folded vernation**  
Leaf margin of the YOUNGEST leaf emerging (from the top of the shoot) simply unfolds, looking like a "V"



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**Folded Vernation Grass Identification Key**

**AURICLES PRESENT**

- Auricles blunt, leaf underside glossy.....perennial ryegrass

**AURICLES ABSENT**

- Hairy ligule.....bermudagrass
- Membranous ligule less than 1/25 in.
  - Leaves very narrow with bristlelike tip
  - Short rhizomes present.....creeping red fescue
  - Rhizomes absent.....Chewings, hard, or sheep fescue
  - Leaves medium width, smooth upper leaf surface, strong rhizomes.....Kentucky bluegrass
- Membranous ligule more than 1/25 in.
  - Leaves more than 1/6 in. wide
    - Horizontal stems radiate from crown, leaves dark green, zipperlike seedheads in summer.....goosegrass
    - Stems mostly vertical, leaves blue-green.....orchardgrass
  - Leaves medium with boat-shaped tips
    - Apple-green, seedheads often present.....annual bluegrass
    - Rhizomes present, gray-green leaves, stems strongly compressed.....Canada bluegrass
    - Yellow-green foliage, creeping stems.....rough bluegrass

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From the "Identifying Turf and Weedy Grasses of the Northern United States" book.

Most turfgrass/grassy weed identification keys will use vernation as one of the first botanical features for ID.

Most hard copy (paper keys, books) will use vernation as the first "fork in the road" for ID purposes.

Electronic ID keys (website, phone apps) often allow you to use other botanical characteristics for ID – and are not locked in to using vernation as the first characteristic in the ID process

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**Rolled Vernation Grass Identification Key**

**AURICLES PRESENT**

- Long, clawlike auricles; strong rhizomes.....quackgrass
- Blunt auricles with short hairs.....tall fescue
- Auricles smooth.....annual ryegrass

**AURICLES ABSENT**

- Ligule absent.....barnyardgrass
- Ligule hairy
  - Rhizomes and stolons present.....zoysiagrass
  - Long stolons, gray-green foliage.....buffalograss
  - Bunch-type growth, densely bristled seedhead.....foxtail
- Ligule membranous
  - Blades usually more than 1/4 in. wide, rhizomes usually present
    - Rhizomes weak.....redtop
    - Foliage constricted, forms "M" or "W".....smooth brome
  - Bunch-type growth
    - Base of plant swollen or bulbous.....Timothy
    - Digitate seedheads in summer.....crabgrass
- Blades usually less than 1/4 in. wide
  - Weak, spreading stems; hairs at collar; ligule jagged.....nimblewill
  - Long stolons; tall, rounded ligule.....creeping bentgrass
  - Weak stolons, flat-topped ligule.....colonial bentgrass

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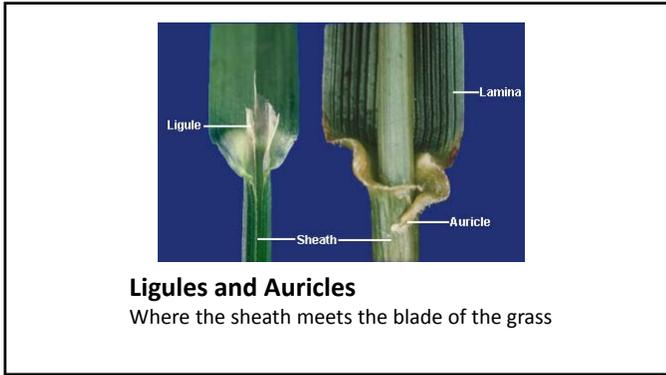
From the "Identifying Turf and Weedy Grasses of the Northern United States" book.

While many botanical characteristics can vary in appearance (size, color) from grass plant to grass plant, with time of year, how the grass is being mowed or watered, etc., vernation is ALWAYS consistent.

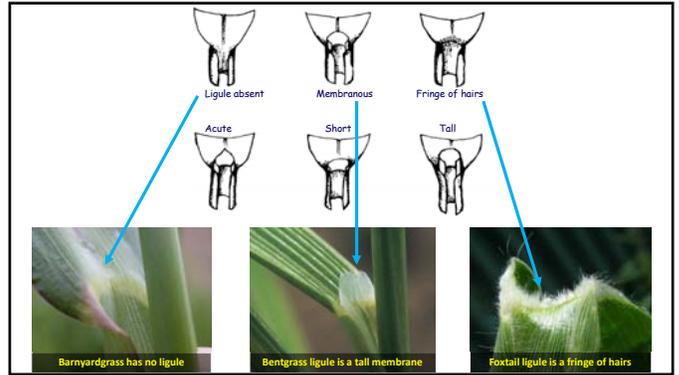
Vernation is not affected by how grasses are mowed, watered, or fertilized – and will never change with time of the year.

Vernation is consistent with genus. For example, all bluegrasses in the world have folded vernation – while all bentgrasses and crabgrass species have rolled vernation.

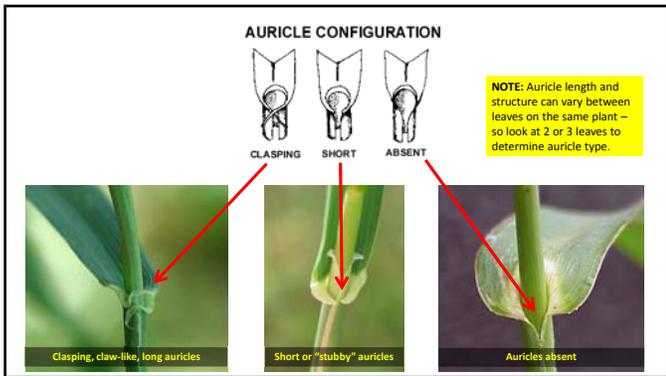
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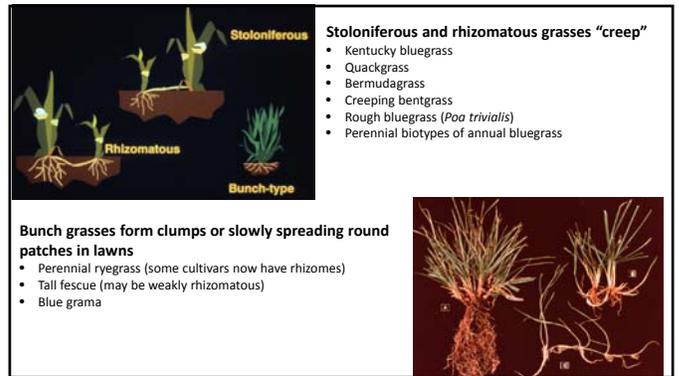
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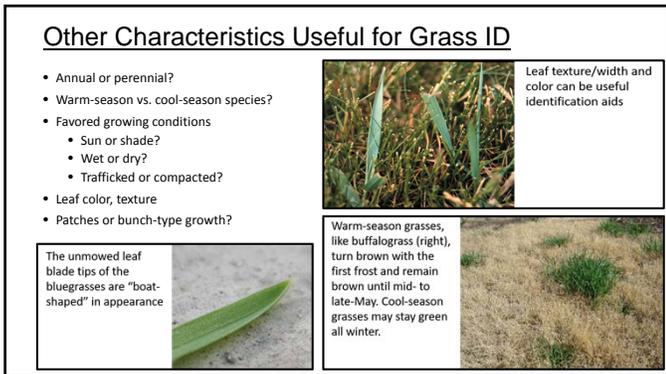
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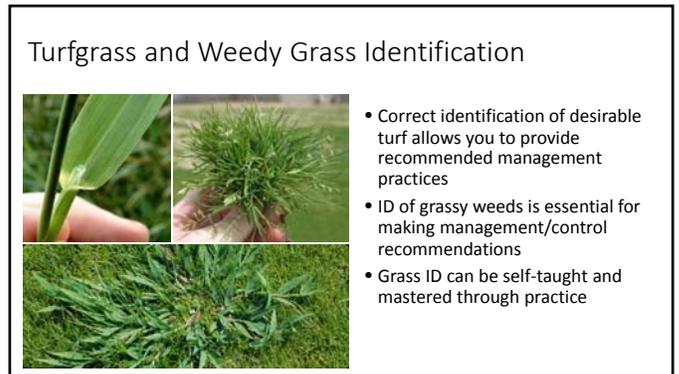
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