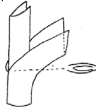
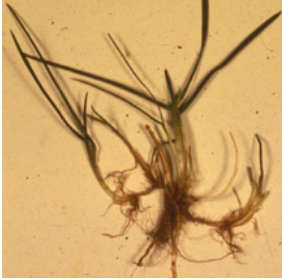

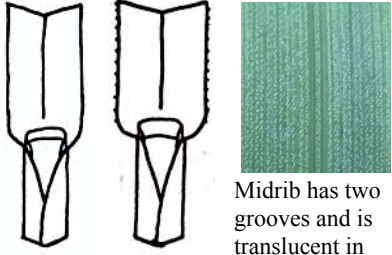



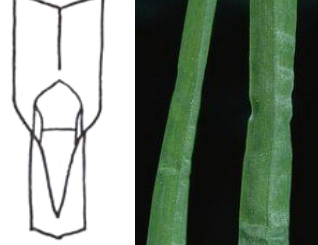
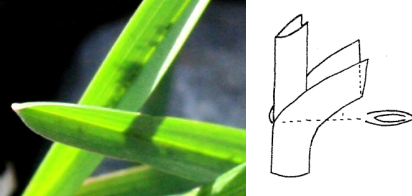
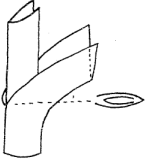

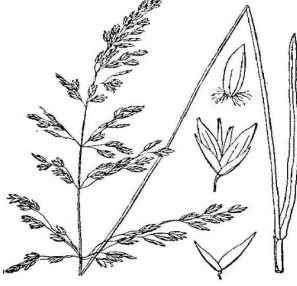
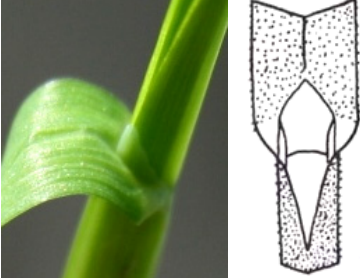

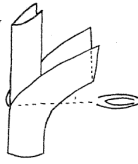


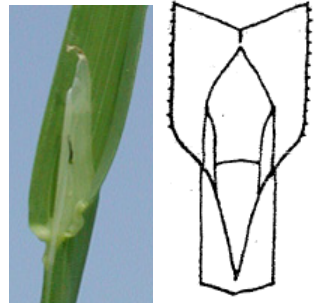

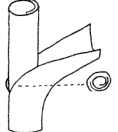





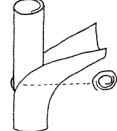



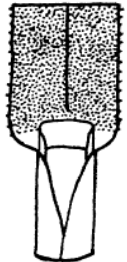

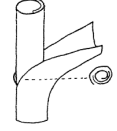




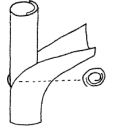






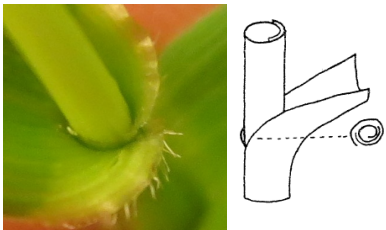





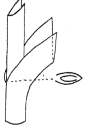
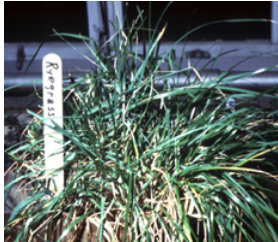





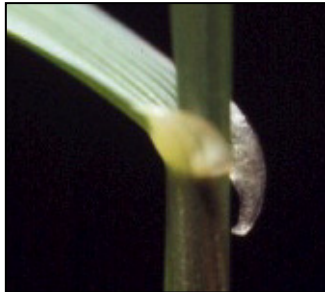




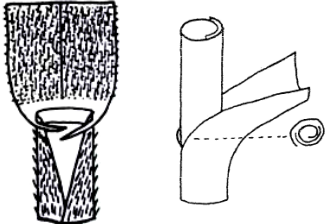


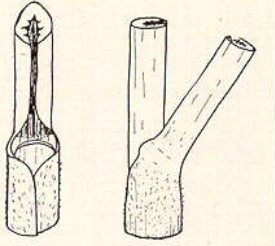



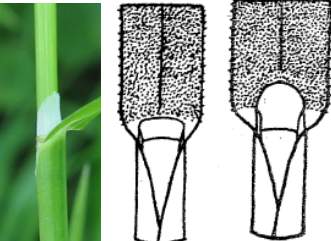




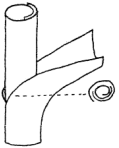
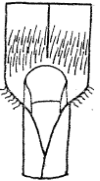



Characteristics of Forage and Pasture Grasses Found in the Northeast U.S.

Species	Growth Habit	Seedhead	Leaf Characteristics	Other Characteristics
<p>Bluegrass (<i>Poa</i> spp.) Kentucky – <i>P. pratensis</i> Canada – <i>P. compressa</i></p> <p>Short, low growing perennial grasses; they form a dense sod spreading by short rhizomes; Ky BG is dark green and Can BG is blue-green Leaves fold in bud shoot</p> 	 <p>Many short rhizomes</p>	 <p>Panicle with very small seed</p>	 <p>Kentucky Canada Truncate ligules</p> <p>Midrib has two grooves and is translucent in light</p>	 <p>Narrow leaves with boat shaped tip Leaves fold in bud shoot</p>
<p>Annual bluegrass <i>Poa annua</i></p> <p>An annual often found near gates and laneways where soil is compacted</p> <p><i>P. annua</i> spp. <i>reptans</i> is a subspecies that is stoloniferous.</p>	 <p>An annual bunchgrass</p>	 <p>Small, short panicles</p>	 <p>Pointed ligule crinkled leaves</p>	 <p>Leaves have boat shaped tip and double grooved, translucent midrib when held in light; leaves folded in the bud shoot</p>
<p>Roughstalk bluegrass <i>Poa trivialis</i></p> <p>Creeping perennial Prefers shady, moist areas</p> <p>Leaves folded in bud shoot</p> 	 <p>Spreads by stolons; forms dense patches</p>	 <p>Loose, green panicle</p>	 <p>Pointed ligule; rough surface</p>	 <p>Folded in bud shoot and leaf blades fold</p>
<p>Orchardgrass <i>Dactylis glomerata</i></p> <p>Tall growing bunchgrass; Long leaves that are lighter green compared to other grasses;</p> <p>Leaves strongly folded in bud shoot</p> 	 <p>Prolific tillering grass</p>	 <p>Panicle seed head with ball-like clumps</p>	 <p>Long, pointed ligule, no auricle</p>	 <p>Leaves strongly folded</p>

Species	Growth Habit	Seedhead	Leaf Characteristics	Other Characteristics
Timothy <i>Phleum pratense</i> A tall growing bunch grass; Heads out later than most other grasses; 	 Tall, Bunchgrass	 "spike-like" panicle seedhead; spikelet has "horns"	 Medium long ligule that is notched near front at least on one side	  Unique bulb at its roots called a "corm" Leaves tend to twist.
Meadow Foxtail <i>Alopecurus pratensis</i> Rhizomatous sod forming dense swards; heads out early in April and May 	 Spreads by rhizomes	 "spike-like" panicle; early heading	  Ligule truncate to round, toothed	 Spikelets have single awn
Reed canarygrass <i>Phalaris arundinacea</i> Very tall growing sod grass with extensive rhizomes; Grows best in wet soils, but tolerates well drained sites 	 Open sod forming grass with thick extensive rhizomes	 Panicle can be tight but also will open at an earlier maturity	 long ligule with no auricle; wide leaves	 Leaves are wide but leaf blades are short relative to leaf width
Smooth bromegrass <i>Bromus inermis</i> Tall growing, open sod forming grass; very tolerant of dry soils 	 Open sod extensive rhizomes	 Loose panicle with long spiklets	 Short truncate ligule with no auricles; split sheath	 Wide leaf with distinct crimp "M" marking found on most leaves

Species	Growth Habit	Seedhead	Leaf Characteristics	Other Characteristics
<p>Tall fescue <i>Schedonorus arundinaceus</i></p> <p>Tall growing bunchgrass although it can produce short rhizomes; Leaves are coarse and medium-to-wide; Less palatable than other cool season grasses</p>	 <p>Coarse textured bunchgrass</p>	 <p>Open panicle seed head</p>	 <p>Short auricle usually with hairs; Short, truncate ligule; rolled bud shoot</p>	 <p>Dark green leaves with “corduroy” like deep parallel grooves</p>
<p>Meadow fescue <i>Schedonorus pratensis</i></p> <p>Tall growing bunchgrass similar to tall fescue but slightly shorter; Leaves are coarse and medium-to-wide; More palatable than tall fescue</p>	 <p>Bunchgrass</p>	 <p>Open panicle seed head</p>	 <p>Short auricle without hairs (smooth); Short, truncate ligule; rolled bud shoot</p>	 <p>Medium green leaves with “corduroy” like deep parallel grooves</p>
<p>Perennial ryegrass <i>Lolium perenne</i></p> <p>A low to medium growing bunchgrass; Narrow dark green leaves, Leaves somewhat folded in bud shoot (oval shaped)</p> 	 <p>Bunchgrass</p>	 <p>Spike seed head without awns</p>	 <p>Truncate ligules; grooved “corduroy” leaves; small claw-like auricles</p>	 <p>Very shiny bottom side of leaf; also a very pronounced keel-like midrib</p>
<p>Italian (Annual) ryegrass <i>Lolium multiflorum</i></p> <p>Similar to perennial ryegrass <u>but larger</u>. Leaves usually rolled in bud shoot but not always</p> <p>Festulolium species (a cross of ryegrass with tall or meadow fescue) will often look like Italian ryegrass</p>	 <p>Bunchgrass</p>	 <p>Spike seed head with awns</p>	 <p>Truncate ligules; grooved “corduroy” leaves; claw-like auricles</p>	 <p>Shiny bottom side of leaf with pronounced keel-like midrib</p>

Species	Growth Habit	Seedhead	Leaf Characteristics	Other Characteristics
<p>Quackgrass <i>Elymus repens</i> or <i>Elytgrigia repens</i></p> <p>A tall growing creeping grass with extensive rhizomes, open sod; Grows best in loose soils; typically considered a weed</p>	 <p>Extensive rhizomes</p>	 <p>Spike seed head; spikelets oriented toward peduncle</p>	 <p>Long clasping auricles; sheaths can be hairy but not always</p>	 <p>Medium long, truncated ligule; leaves rolled in bud shoot</p>
<p>Fine Fescues <i>Festuca</i> spp. Red fescue <i>F. rubra</i> Sheep fescue <i>F. ovina</i> Hard fescue <i>F. brevipila</i></p> <p>Low growing, narrow leaf perennial grasses that are drought and shade tolerant. Usually unpalatable for grazing livestock.</p>	 <p>Fine, narrow leaves</p>	 <p>Narrow, contracted panicle</p>	 <p>Sheep and hard fescue leaves are almost always rolled and are quite narrow</p>	 <p>Red fescue leaves tend to fold and roll and are also narrow</p>
<p>Bentgrass <i>Agrostis</i> spp. Creeping <i>A. stolonifera</i> Colonial <i>A. capillaris</i> Redtop <i>A. gigantea</i></p> <p>Low growing, fine, soft leaved grasses. Often found in low, wet areas of pastures and meadows Leaves rolled in bud shoot</p>	 <p>Forms soft, dense patches</p>	 <p>Creeping BG Redtop Panicle seed head</p>	<p>Creeping Colonial Redtop</p>  <p>Long pointed to round Short truncate Medium rounded</p>	 <p>Creeping growth pattern.</p> <p>Creeping bentgrass – stolons only Colonial BG – rhizomes and stolons Redtop – rhizomes only</p>
<p>Sweet Vernalgrass <i>Anthoxanthum odoratum</i></p> <p>A low yielding bunchgrass that grows in low fertile, acid soils. Produces a sweet odor due to coumarin but is generally unpalatable</p>	 <p>A bunchgrass</p>	 <p>Short, brownish, spike-like panicle</p>	  <p>Lacerate or toothed ligule; Leaves rolled in bud shoot</p>	  <p>Short, pointed leaf blade with hair at base</p>

Credits: C.E. Philips. Some grasses of the Northeast; Purdue Un. Forage ID Page (<http://www.agry.purdue.edu/ext/forages/ForageID/forageid.htm>); USDA Plant Data Base (<http://plants.usda.gov>)

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Developed by Sid Bosworth, Extension Forage Agronomist, University of Vermont Extension, January 2014 (<http://pss.uvm.edu/vtcrops/>)