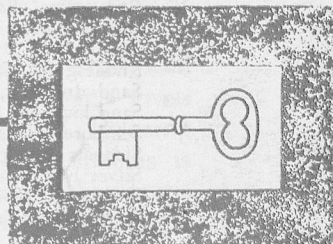


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1950

# *know your grasses*

**THE KEY  
TO SUCCESSFUL  
RANGE  
MANAGEMENT**



Issued by the  
Agricultural Extension Service  
Texas A. and M. College System  
G. G. Gibson, Director  
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Photographs supplied through courtesy of the U. S. Department of Agriculture, Washington, D. C.

*The Key to Successful Range Management . . .*

# Know Your Grasses\*

Prepared by

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Grass is our basic heritage. It is Texas' greatest and most neglected resource. All grasses are not the same; some are heavy forage producers, others light, some grow in winter, others in summer, some are shallow rooted, some are deep rooted, some are liked by livestock, others are not. Knowing grasses, like knowing livestock, is fundamental in the business. Certain grasses on a pasture are indicators and are like signs on a highway. They show whether you are going up-hill or down, or if the way ahead will be crooked or straight.

This publication is an attempt to make you and your sons, the ranchmen and stock farmers of Texas, better acquainted with grasses. Learn at least the "key" or important species in your area. Are they increasing or dying out in the center of the clump? The more adapted good grazing grasses you have on your pasture, the more sound is your business.

The most important native and introduced grasses of Texas are illustrated on the following pages. The most accepted name has been given as the common name, followed by the scientific name. Basic characteristics of each grass follow as perennial, warm (season), climax, good (grazing value). A short non-technical description of each species is given which, with the aid of the photograph, should make identification possible. Some technical names are necessary and the definitions of these terms are included. Plant areas (see map on page 63) in which a given grass is most abundant and important are listed with preferred soil type.

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\*We wish to express appreciation to H. B. Parks, former Curator of the S. M. Tracy Herbarium, Texas A. and M. College, for the original idea of this publication. Acknowledgment is made to Dr. Omer E. Sperry, Dr. Harold F. Heady, Dr. Robert A. Darrow, Dr. Frank Gould and David G. Wilson, Department of Range and Forestry, Texas A. & M. College for their help in editing this bulletin.

## Definition of Terms

*Alternate*—first on one side and then on the other.

*Annual*—plant lives only one year or season. There is no living over of the crown—must come from seed each year.

*Awn*—bristle-like growth, especially on parts of a seed.

*Axil*—between stem and branches of the flower.

*Blade*—the expanded part of a leaf, that part above the sheath and away from the stem.

*Bract*—scales. They may be the glumes or lemma.

*Bristle*—stiff hair-like growth.

*Bulbous*—bulb-like in shape or structure.

*Climax*—top ranking plants in the areas given—must be native to fall in this group.

*Collar*—where sheath and leaf join.

*Cool season*—making all or most of their growth in the winter, early spring or late fall.

*Culm*—the jointed stalk or stem, usually with a seed head at the top.

*Decumbent*—stems or branches in an inclined position but the end erect.

*Floret*—the small individual grass flower consisting of the lemma, palea and seed.

*Fruit*—the ripe grain or seed.

*Glumes*—the lowest bracts of a grass spikelet which are empty. Usually there are two in grasses.

*Grazing value*—the worth of a plant for livestock determined by considering its palatability, nutritive quality, volume of forage produced, longevity and area of primary distribution.

GOOD applies to a plant that is in top volume production, is highly palatable (not necessarily at all seasons) and nutritious where adapted.

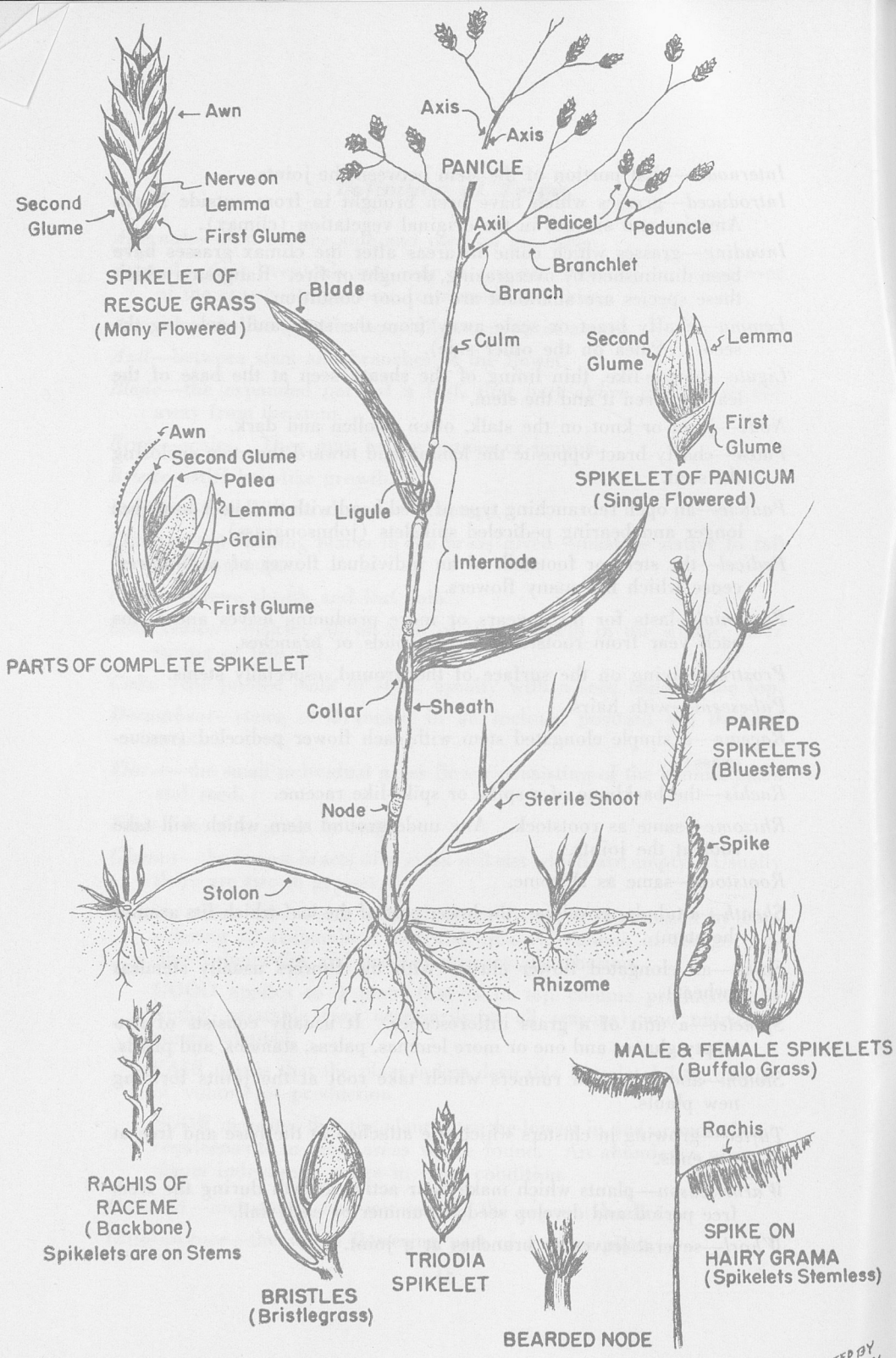
FAIR means that the plant is less desirable in palatability, quality or volume of production.

POOR indicates that the plant rates the lowest in one or more basic requirements in most areas where found. An abundance of such plants indicates a range in poor condition.

*Included*—inclosed in and not outside the organ (sheath).

*Inflorescence*—the whole flowering part of a grass plant.

- Internodes*—that portion of the stem between the joints.
- Introduced*—grasses which have been brought in from outside North America and are not in the original vegetation (climax).
- Invading*—grasses which come in areas after the climax grasses have been diminished by overgrazing, drought or fire. Ranges on which these species are abundant are in poor condition.
- Lemma*—chaffy bract or scale away from the stem and enclosing the seed. (Palea on the other side).
- Ligule*—tongue-like, thin lining of the sheath seen at the base of the leaf, between it and the stem.
- Node*—joint or knot on the stalk, often swollen and dark.
- Palea*—chaffy bract opposite the lemma and toward the stem enclosing the seed.
- Panicle*—an open rebranching type of seed head with the lower branches longer and bearing pediceled spikelets (johnsongrass).
- Pedicel*—the stem or footstalk of an individual flower of an inflorescence which has many flowers.
- Perennial*—lasts for three years or more producing leaves and stems each year from rootstocks, crown buds or branches.
- Prostrate*—lying on the surface of the ground, especially stems.
- Pubescent*—with hairs.
- Raceme*—a simple elongated stem with each flower pediceled (rescuegrass).
- Rachis*—the backbone of a spike or spike-like raceme.
- Rhizome*—same as rootstock. Any underground stem which will take root at the joints.
- Rootstock*—same as rhizome.
- Sheath*—a tubular envelope; the lower part of the leaf which fits around the stem.
- Spike*—an elongated flower cluster with the flowers usually stemless (wheat).
- Spikelet*—a unit of a grass inflorescence. It usually consists of two empty glumes and one or more lemmas, paleas, stamens, and pistils.
- Stolon*—above ground runners which take root at the joints forming new plants.
- Tufted*—growing in clusters which are attached at the base and free at the ends.
- Warm season*—plants which make their active growth during the frost free period and develop seed in summer or early fall.
- Whorl*—several leaves or branches at a joint.



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## Western Wheatgrass



WESTERN WHEATGRASS, *Agropyron smithii*

Perennial, cool, climax, good.

1-4' tall, from gray slender creeping rootstocks. Blue green stems and leaves. Flat seed head usually awnless. Goes out with overgrazing. Now most abundant in moist bottomland. Area 7.

## *Big Bluestem*



BIG BLUESTEM, *Andropogon gerardi* (*A. furcatus*)

Perennial, warm, climax, good.

3-6' tall, often from short rootstocks. Sheaths usually fuzzy, hairs on blade. Tall slim culms. Seed heads usually come out in threes like a turkey foot. Preferred by cattle and decreases with overgrazing. Left mostly in bottomland. Areas 1, 2, 4.



## *Silver Bluestem*



SILVER BLUESTEM, *Andropogon saccharoides*

Perennial, warm, climax, fair.

1½-3½' tall. Usually from an inclined base; no rhizomes; leafy bent stems; smooth, white nodes, fuzzy white terminal panicle with short awned spikelets. Prairies and rocky slopes. Areas 3, 4, 5, 6, 7.

## *Little Bluestem*



LITTLE BLUESTEM, *Andropogon scoparius*

Perennial, warm, climax, good.

2-4' tall, flattened sheaths, blades bluish green to leathery brown on maturity. Small fuzzy seeds with twisted awn. Upland and bottomland. Areas 1, 2, 4, 5, 7.

## *Broomsedge Bluestem*



BROOMSEDGE BLUESTEM, *Andropogon virginicus*

Perennial, warm, invading, poor.

2-5' tall, overlapping flattened sheaths, hairy upper blade surface. Straw yellow when mature. Seed heads partly enclosed in a sheath (spathe). Mostly upland, woodland, and overgrazed places. Areas 1, 2, 4.

## *Prairie Threeawn*

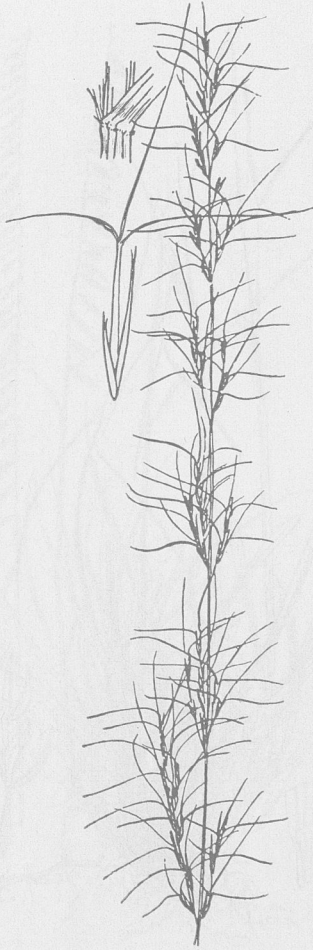


PRAIRIE THREEAWN, *Aristida oligantha*

Annual, warm, invading, poor.

1-2' tall, tufted, branched at the base and nodes. Woolly at the base with a smooth sheath. Long spreading unequal awns (over 1"). Uplands primarily. Areas 1, 4, 5, 7.

## *Wrights Threeawn*



WRIGHTS THREEAWN, *Aristida wrightii*

Perennial, warm, climax, fair.

1-2 $\frac{1}{2}$ ' tall, erect, densely-tufted bunch grass. Hairs on collar. Seed head purplish at first, then straw yellow to ashy gray when dry. Seed has three spreading awns up to 1" long. Uplands-hills and plains. Areas 3, 4, 5, 6.

## Carpetgrass



CARPETGRASS, *Axonopus compressus*

Perennial, warm, introduced, fair to good.

1-2½' tall, flat stems and stolons, bearing flat, short, rounded blades. Seed head 2 or 3 racemes on a long slender stem. Spikelets fuzzy and not over 2½ mm long. Bottomland. Areas 1, 2, 4.

## Sideoats Grama



SIDEOATS GRAMA, *Bouteloua curtipendula*

Perennial, warm, climax, good.

1-3½' tall, from strong scaly rootstock. Hairs grow out of pimple-like spots on blade edges. Tall, zig-zag seed stems with many spikelets (20-50) twisting around on one side when ripe. Seeds resemble oats. Mostly upland. Areas 3, 4, 5, 6, 7.

## *Black Grama*



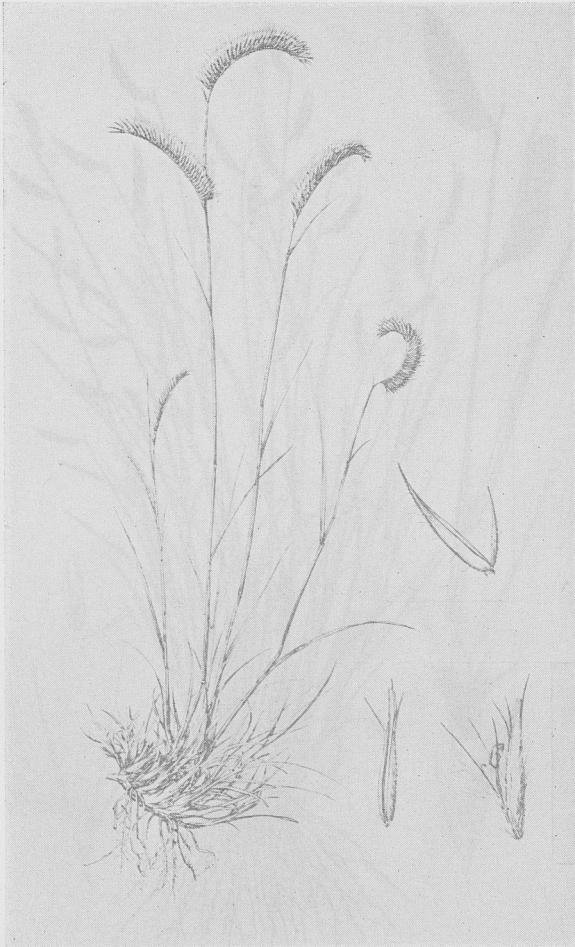
BLACK GRAMA, *Bouteloua eriopoda*

Perennial, warm, climax, good.

1-2' tall, with weak, crooked, slender, woolly stems which often take root at the swollen fuzzy joints. Seed head of 3 to 8 narrow spikes. Gravelly uplands. Areas 6, 7.



## *Blue Grama*



BLUE GRAMA, *Bouteloua gracilis*

Perennial, warm, climax, good.

1-2' tall tufted and erect but sometimes forming a sod. Usually 2 rooster comb-like spikes with no stinger. Plains and hills. Areas 5, 6, 7.

## Hairy Grama



HAIRY GRAMA, *Bouteloua hirsuta*

Perennial, warm, climax, fair.

$\frac{1}{2}$ -2 $\frac{1}{2}$ ' tall, tufted erect bunch. Hairy glumes and blade margins. 2-4 rooster comb-like spikes with a stinger. Rocky hills and plains. Areas 3, 4, 5, 6, 7.

## Red Grama



RED GRAMA, *Bouteloua trifida*

Perennial, warm, invading, poor.

5-10" tall, tufted, erect or prostrate from short rootstocks. Slim blades and stems with 3-7 red, purplish to pale spikes. Spikelets have 3 short, rough awns. Upland-hills and ridges. Areas 3, 4, 5, 6, 7.

## *Rescuegrass*



RESCUEGRASS, *Bromus catharticus*

Annual, cool, introduced, fair to good.

1-3' tall, bunchgrass with lower sheaths and blades often fuzzy. Erect or drooping, flat, green seed head which turns straw yellow when ripe and dry. Spikelets overlapping with short or no awn. Comes from seed in winter providing early forage. Bottomland areas 1, 4, 5, 7.

## Japanese Bromegrass

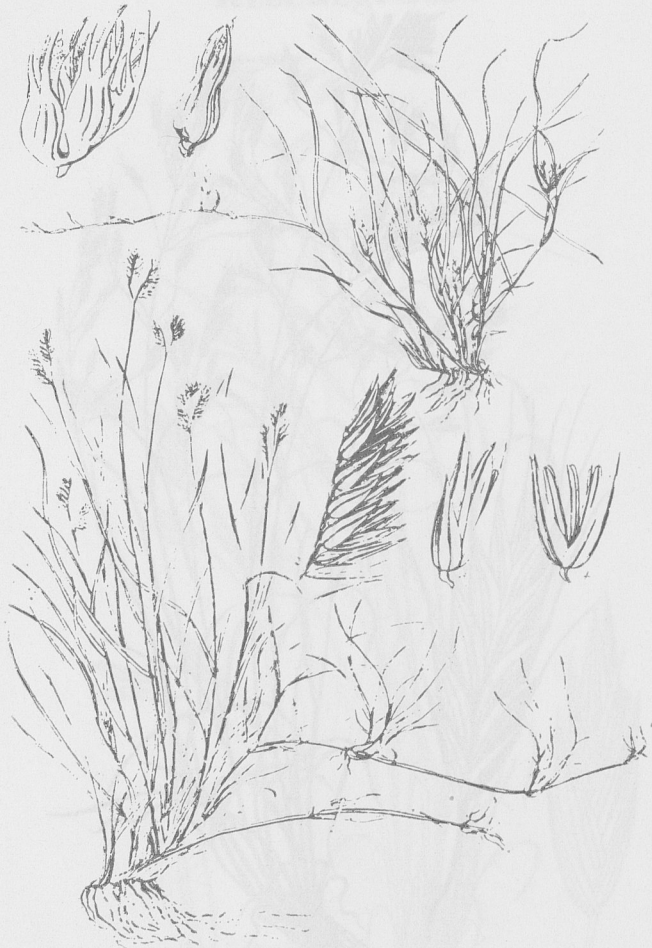


JAPANESE BROMEGRASS, *Bromus japonicus*

Annual, cool, invading, poor.

1-2½' tall, erect or spreading, bent at the base with swollen brown nodes and fuzzy sheaths. Panicle finally nodding with 2-6 branches in whorls, bearing several flat spikelets at the end. Spikelets often hairy or fuzzy with a distinct awn, ¼-¾" long. Waste places and fields. Areas 4, 7.

## Buffalograss

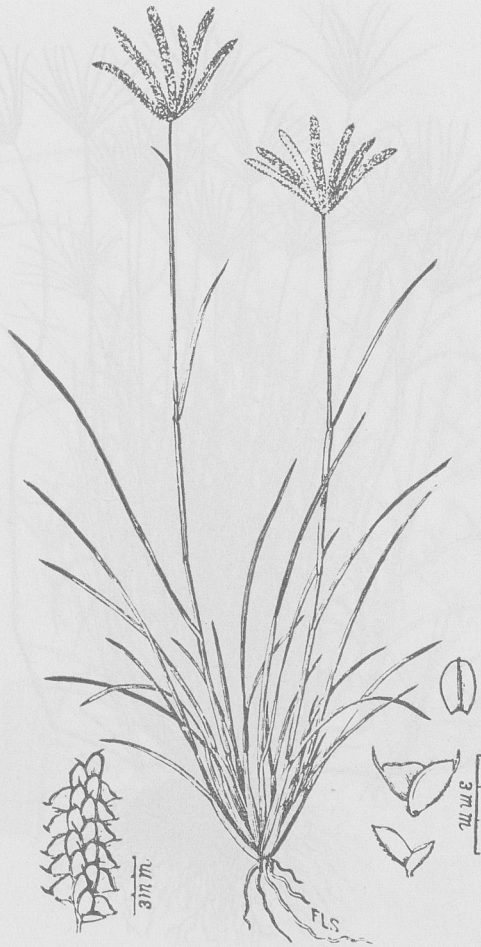


### **BUFFALOGRASS, *Buchloe dactyloides***

**Perennial, warm, climax, good.**

**4"-1' tall, sod-forming with creeping surface runners which take root at the leafy nodes. Nodes are smooth and internodes shorter than curly mesquite. Foliage turns reddish brown when frosted. Male and female plants grow in separate patches or colonies. Female plants bear seed in clusters among the leaves and resemble a bur (top). Male plants have a 2 or 3 spiked flag-like seed head (bottom). Plains and prairies. Areas 3, 4, 5, 7.**

## Hooded Windmillgrass



HOODED WINDMILLGRASS, *Chloris cucullata*

Perennial, warm, invading, fair.

1-2' tall, tufted, erect with flat bluish-green stems and sheaths. Sometimes with short stolons. 7-18 stout, purplish terminal spikes which turn straw yellow or black when ripe. Upland-sandy soil. Areas 3, 4, 5, 7.





## Bermudagrass



BERMUDAGRASS, *Cynodon dactylon*

Perennial, warm, introduced, good.

4''-1' tall, dark bluish-green sod grass with both rhizomes and stolons. Inflorescence 3-6 purple spikes which resemble a bird's foot. Most common lawn and pasture grass of the south. Bottomland. Areas 1, 2, 4, 5.

## Seashore Saltgrass



SEASHORE SALTGRASS, *Distichlis spicata*

Perennial, warm, climax, fair.

6'-2' tall, erect, coarse from creeping scaly rootstock. Rigid pointed blades. Male spikelet (left) and female (right). Salt marshes and flats. Areas 2, 3.

## Canada Wildrye

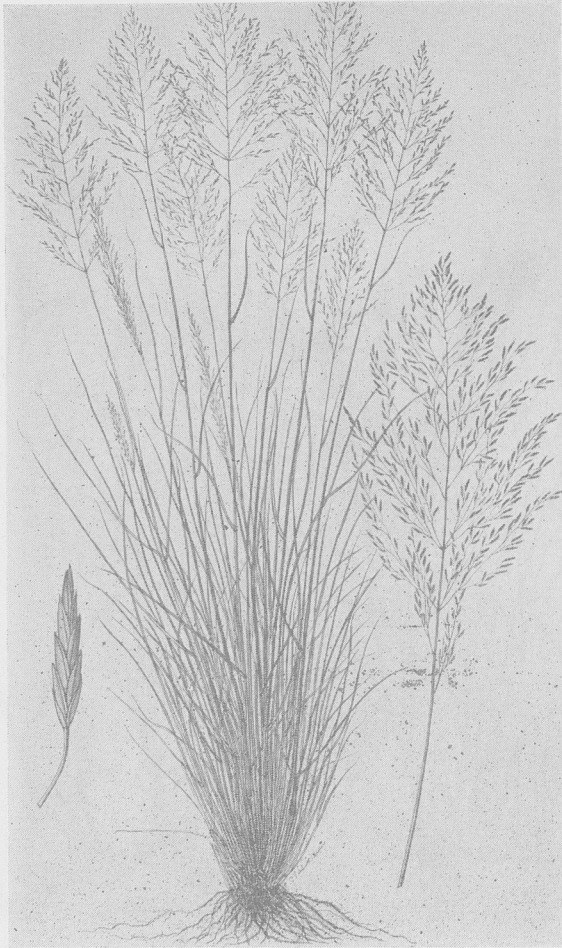


CANADA WILDRYE, *Elymus canadensis*

Perennial, cool, climax, good.

2-4' tall, bunchgrass with wide blades and awned spike seed head resembling wheat or barley. Spikelets in pairs, glumes straight at the base, awns more than twice as long as the lemma. Bottomland. Areas 1, 4, 5, 7.

## *Weeping Lovegrass*



WEEPING LOVEGRASS, *Eragrostis curvula*

Perennial, warm, introduced, fair.

2-4' tall, erect, seed-stalk with narrow drooping coarse blades. Seed head is a loose open panicle with many seeded grayish-green spikelets. Panicle resembles lace when mature. Sandy soil. Areas 3, 4, 7.

## Red Lovegrass



RED LOVEGRASS, *Eragrostis secundiflora*

Perennial, warm, invading, poor.

1-2½' tall, tufted, branching and spindly. Blades 8-12" long. Panicle green to purplish 8-18" long, which becomes straw-yellow when mature. Spikelets flat and crowded in clusters, lemmas 3-3½ mm long. Upland sandy land. Areas 1, 2, 3, 4, 5, 7.

## *Sand Lovegrass*



SAND LOVEGRASS. *Eragrostis trichodes*

Perennial, warm, climax, good.

2-4' tall, tufted, erect. Sheaths hairy at the throat. Long open, oblong panicle (1 to 2') with purplish to pale. 6-10 flowered spikelets. Upland sandy soil. Areas 4, 7.

## Texas Cupgrass



TEXAS CUPGRASS, *Eriochloa sericea*

Perennial, warm, climax, good.

1-4' tall in large tufts with lead pencil-feel at the base. Blades soft, lax. Pale seed head with single fuzzy seed in rows, borne on very short hairy stems. Seeds have ring-like base. Seeds fall leaving fuzzy stem. Hills and ridges, mostly under protection. Areas 4, 5, 7.

## Tanglehead



TANGLEHEAD, *Heteropogon contortus*

Perennial, warm, climax, fair.

1-3½' tall, tufted, erect with flat overlapping sheaths. Foliage turns reddish brown with straw yellow stems on maturity—tastes like molasses. Long (2-4"), twisted, one-awned, fuzzy brown florets fall, leaving overlapping florets which look like braid. Rocky hills and ridges. Areas 3, 5, 6.



## Curly Mesquite



CURLY MESQUITE, *Hilaria belangeri*

Perennial, warm, climax, fair.

4-10" tall, pale green sod-forming with creeping surface runners which take root at the leafy nodes. The runners are long wiry, rough-feeling and have hair at the nodes (buffalograss is smooth). Blades are densely tufted and curly. Foliage turns yellow when frosted. Single spike-like seed head leaving zig-zag stem when florets fall. Plains and prairies. Areas 3, 4, 5, 6.

## Galletagrass



GALLETAGRASS, *Hilaria jamesii*

Perennial, warm, climax, fair.

8-25" tall, branching at the base, from rough scaly rhizomes. Long hairs (3-5 mm) at the base. Large papery glumes narrowing to tip with awns 4-5 mm long. Resembles overgrown tobosagrass. Hills and plains. Area 7.

## Tobosagrass



TOBOSAGRASS, *Hilaria mutica*

Perennial, warm, climax, fair.

1-2' tall, from coarse, woody, scaly rootstock. Greens up readily after rain and turns ashy gray and coarse during drought. Spikes purplish to pale when ripe. Glumes wedgeshaped, broad and hairy at the tip. Grows in bunches in flats and heavy soils. Areas 3, 5, 6, 7.

## Green Sprangletop



GREEN SPRANGLETOP, *Leptochloa dubia*

Perennial, warm, climax, good.

1-3' tall with flat base and flat sheaths. Large green sprangled panicle composed of 5-12 spikes. Inflorescence is finally drooping and pale after maturity. Spikelets overlapping, on short pedicels, 4-8 flowered. Rocky hills and canyons. Areas 3, 4, 5, 6.

## Fall Witchgrass



FALL WITCHGRASS, *Leptoloma cognatum*

Perennial, warm, climax, fair.

1-2½' tall, freely branching and felty pubescent below. Short, rigid, flat blades with white edges. One edge is often crinkled. Inflorescence resembles a lovegrass, but single fuzzy seeds are borne at the end of short branches. Seed head breaks off at maturity forming tumbleweeds. Dry rocky or sandy soil. Areas 3, 4, 5, 6.

## *Italian Ryegrass*



ITALIAN RYEGRASS, *Lolium multiflorum*

Annual, cool, introduced, good.

2-3' tall, erect, dark-green with dark swollen joints. Spikelets are placed edgewise and fit into the concave rachis. Lemmas are awned (in perennial ryegrass they are awnless). Lawns, meadows and improved pastures. Areas 1, 4.

## *Perennial Ryegrass*



PERENNIAL RYEGRASS, *Lolium perenne*

Perennial, cool, introduced, good.

1-2½' tall, tufted and erect with glossy green blades. Spikelets are 6-10 flowered placed edgewise to the continuous rachis. Lemmas are awnless. Improved pastures and meadows. Areas 1, 4, 7.

## Bush Muhly



BUSH MUHLY, *Muhlenbergia porteri*

Perennial, warm, climax, good.

6"-2' tall, forming large bunches of tangled stems and leaves and growing most commonly under the protection of thorny brush. Mass often resembles a bird's nest. Blades and stems are short and fine. Blades soon fall off. Inflorescence 2-4" long, purplish to white with single short-awned florets borne on short pedicels. Hills, mesas and plains. Areas 5, 6, 7.



## *Halls Panicum*



HALLS PANICUM, *Panicum hallii*

Perennial, warm, climax, fair.

1-2' tall in small tufts, erect. Slick, green, flat blades. Basal blades curly when dry resembling pine shavings. Panicle ascending above the leaves, 1½-8" long. Single seeded spikelets borne on very short pedicels. Seed dark brown and shiny when ripe. Dry prairies, rocky and gravelly hills and bottomlands. Areas 3, 4, 5, 6, 7.

## Vine Mesquite



VINE MESQUITE, *Panicum obtusum*

Perennial, warm, climax, fair.

1-2' tall, producing long tough stolons with swollen woolly joints. The stem joints are slick. Panicle is included and narrow with seed turning from green to brown on maturity. Along banks of streams or ditches —bottomland. Areas 3, 4, 5, 6, 7.

## Switchgrass

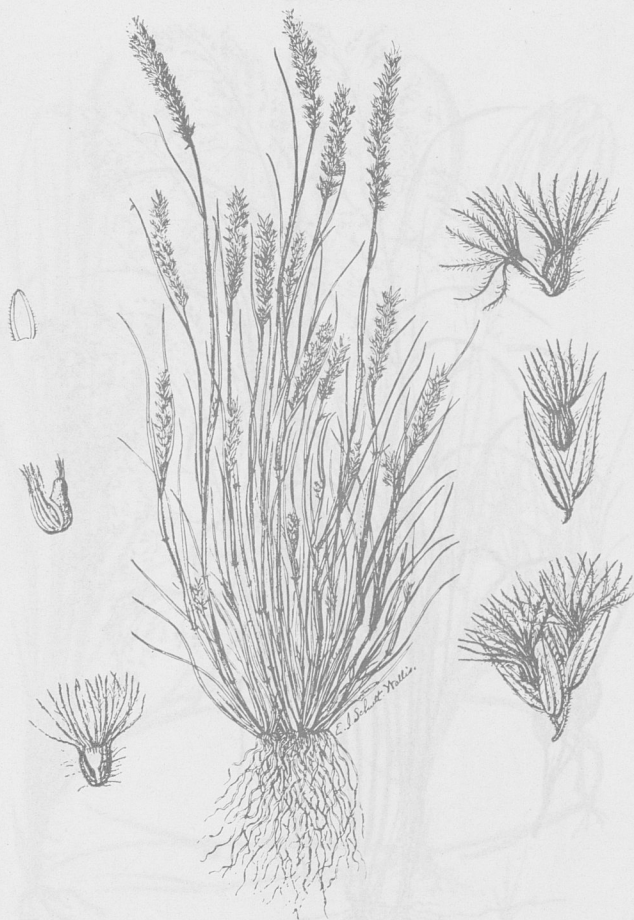


SWITCHGRASS, *Panicum virgatum*

Perennial, warm, climax, good.

3-6' tall, in small to large clumps with many scaly creeping rhizomes. Large robust plants with bluish blades up to 2' long. Panicles egg to pyramid shaped with many purplish spikelets. In winter, seed head resembles branches of a seedling willow tree. Found mostly along creeks and streams and protected areas. Disappears with heavy use. Areas 1, 2, 4, 5, 7.

## Feather Pappusgrass



FEATHER PAPPUSGRASS, *Pappophorum wrightii*

(*Enneapogon desvauxii*)

Perennial, warm, climax, fair.

8-24", but usually only a foot tall from a bulbous base. Panicle is lead colored to pale with spikelets crowded on very short pedicels. Florets resemble a miniature pineapple and each has nine equal plume-like awns. Self-fertilized spikelets (cleistogenes) which are larger than the normal florets are produced in the lower sheaths. Uplands, foothills and mountains. Areas 5, 6.

## Dallisgrass

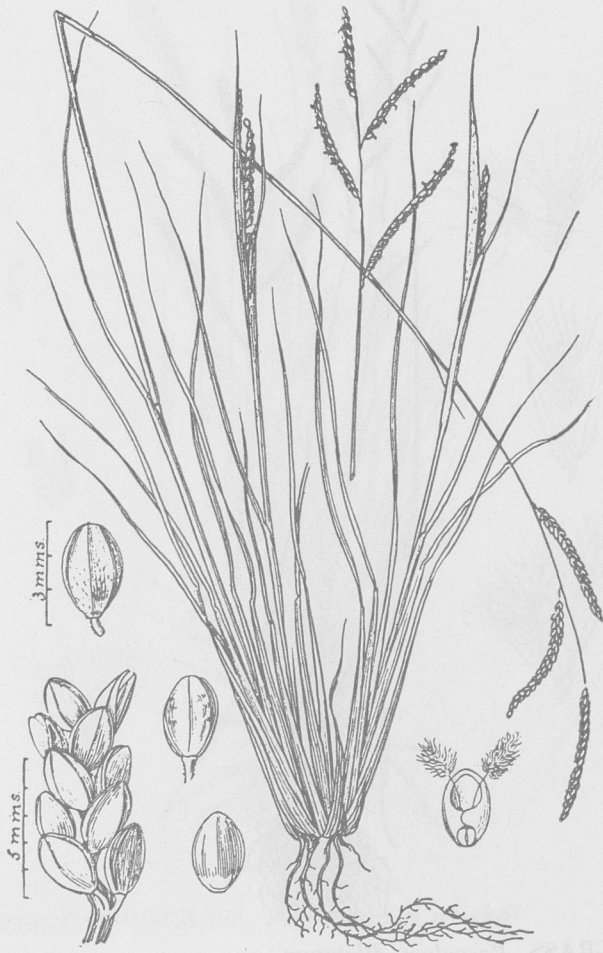


DALLISGRASS, *Paspalum dilatatum*

Perennial, warm, introduced, good.

1-4' tall, erect or widely spreading from a decumbent base with short knotted rhizomes. Culms knee-like at the base, nodes usually dark and swollen. Blades over  $\frac{1}{2}$ " wide. Long extended, nodding panicles with 3-5 racemes, with long hairs at the axils. Spikelets are in pairs on short pedicels and look like 4 rows of seeds. Seeds covered with fine silky hairs (resemble tomato seeds). Most abundant in bottom-land and some in upland soils of high fertility. Areas 1, 2, 4, 5.

## Brownseed Paspalum



BROWNSEED PASPALUM, *Paspalum plicatulum*

Perennial, warm, climax, fair to poor.

1½-3' tall with purplish compressed culms and sheaths. Spikelets gray-green turning dark brown and shining when ripe. Resembles dallisgrass but the blades are much narrower, racemes are shorter and fruit not covered with silky hairs. Savannas in moist sandy or clay soil. Areas 1, 2, 3, 4.

## Tumblegrass



TUMBLEGRASS, *Schedonnardus paniculatus*

Perennial, warm, invading, poor.

8-25" tall, low tufted bunchgrass with overlapping flattened sheaths and spirally twisted blades. Scythe-shaped culms turn downward and panicle breaks off and tumbles in the wind. Panicle is green to purple to pale with alternating 1-5" spikes. Spikelets 1-flowered, in 2 rows on one side of slender seed stem. Sandy soil and overgrazed areas. Areas 4, 5, 7.

## Burrograss



BURROGRASS, *Scleropogon brevifolius*

Perennial, warm, invading, poor.

6-12" tall, from fuzzy scaly rhizomes but also has stolons. Male and female plants grow in patches. The female resembles a three awn and varies from pale green to reddish purple. The male has pale overlapping awnless spikelets. Increases on overstocked ranges and sterile soil. Semi-arid plains and valleys. Areas 5, 6, 7.



## *Plains Bristlegrass*

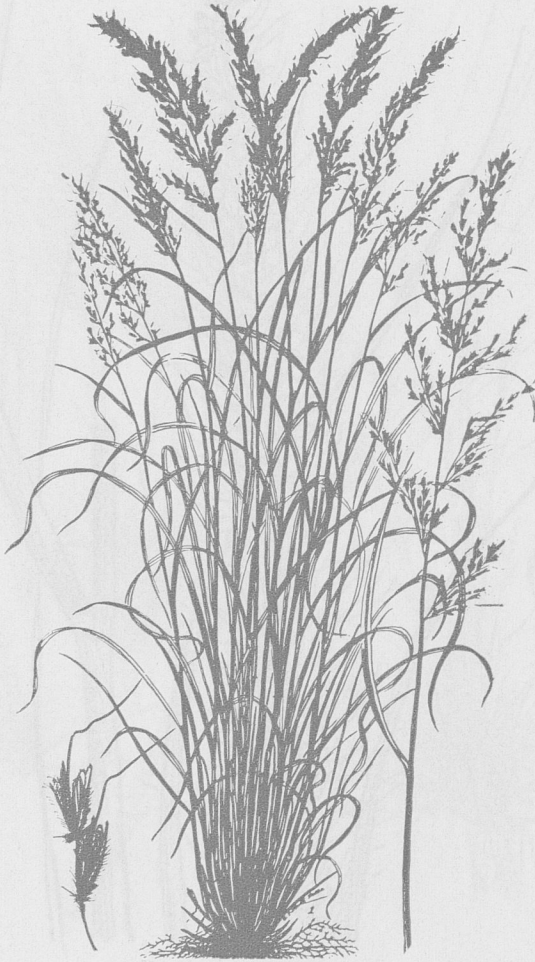


PLAINS BRISTLEGRASS, *Setaria macrostachya*

Perennial, warm, climax, good.

1-3' tall, pale green, culms flattened, often knee-like, branching at the base and lower joints. Blades 3-10 mm wide often folded. Panicle slim, bristly and narrowed at the top. Bristles usually one, below each spikelet. Open dry ground and under the protection of brush in overgrazed areas. Areas 3, 4, 5, 6.

## Indiangrass



INDIANGRASS, *Sorghastrum nutans*

Perennial, warm, climax, good.

3-8' tall from short scaly rhizomes. Fuzzy nodes; firm, half an arrow looking ligule; coarse blue blades. Panicle 8-12" long and bronze to yellow. Awns about  $\frac{1}{2}$ ", once bent and closely twisted to the first bend. Bottomland and protected places. Areas 1, 4, 5, 7.

## Johnsongrass

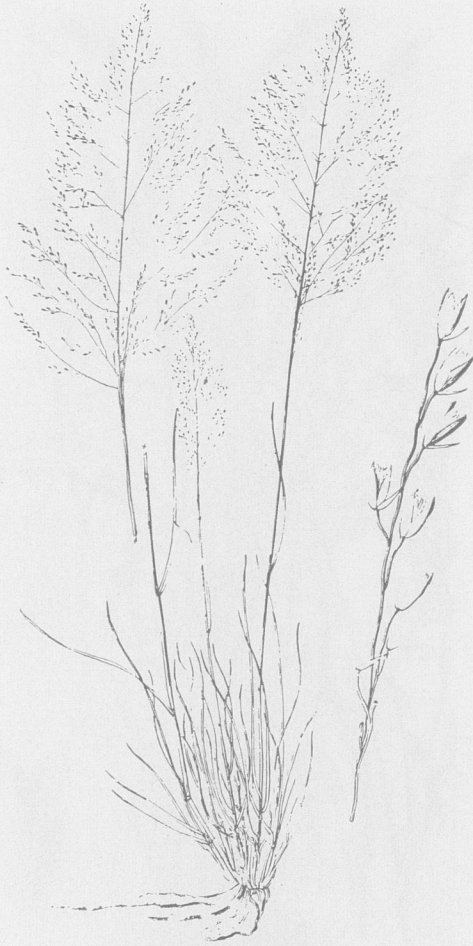


JOHNSONGRASS, *Sorghum halepense*

Perennial, warm, introduced, good.

3-6' tall from extensively creeping scaly rhizomes. Blades blue green and often splotched with purple caused by a bacterial disease. Large open panicles with branchlets mostly in whorls of four. Awns soon fall leaving shiny, fuzzy fruit. Fields and waste places. Areas 1, 2, 3, 4, 5, 6, 7.

## *Alkali Sacaton*



ALKALI SACATON, *Sporobolus airoides*

Perennial, warm, climax, fair to good.

1-3' tall, coarse-stemmed in tough clumps (no rhizomes). Long slender blades hairy at the throat. Loosely flowered pyramidal panicle. One-flowered spikelets on short pedicels. Meadows and valleys especially in alkaline soil. Areas 2, 3, 5, 6, 7.

## Tall Dropseed



TALL DROPSEED, *Sporobolus asper*

Perennial, warm, climax, fair.

1½-5' tall, stout and erect with spike-like panicle more or less included in the puffed up sheath. Spikelets are one flowered and longer (¼") than most of the other dropseeds. Plains or hills and sandy soils. Areas 4, 5, 7.

## *Sand Dropseed*



SAND DROPSEED, *Sporobolus cryptandrus*

Perennial, warm, invading, fair to poor.

1½-3½' tall, erect or spreading with the finally open panicle mostly included in the sheath. Sheath has a distinct tuft of hair at the throat. Panicle is lead colored to purplish with small one flowered spikelets borne on short pedicels. Sandy soil, overgrazed and blown-out areas. Areas 3, 4, 5, 6, 7.

## *Smutgrass*

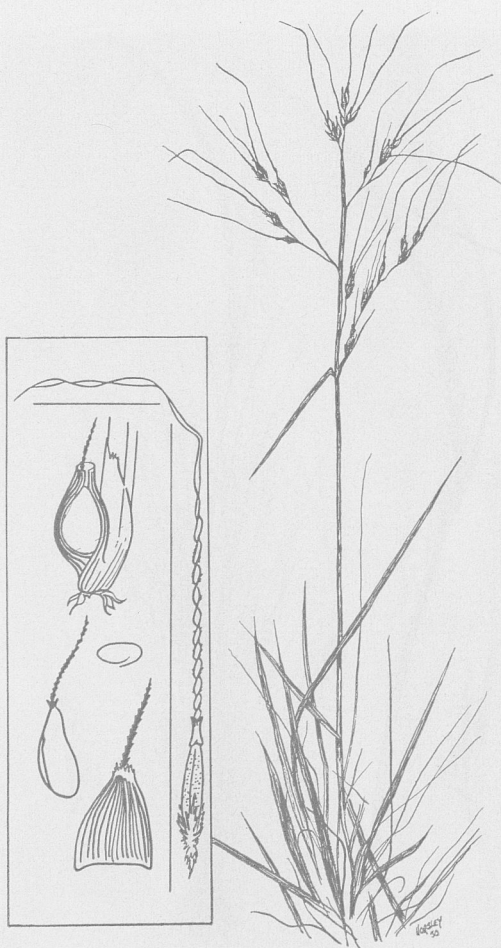


SMUTGRASS, *Sporobolus poiretii*

Perennial, warm, introduced, poor.

1½-3½' tall, slender and erect with a rat-tail appearing seed head sometimes partly included in the sheath. Panicle is often infested with a black fungus, hence the name. Seed are reddish. Meadows, waste places and under the perimeter of trees—probably distributed by birds. Areas 1, 2, 4.

## Texas Wintergrass



TEXAS WINTERGRASS, *Stipa leucotricha*

Perennial, cool, climax, good.

1-2 but sometimes 3½' tall, usually erect, but sometimes prostrate, with short hairy nodes. Dark green blades are beset with short bristly white hairs. Light-brown seed has a single twisted, bent awn 2½-4" long and a barbed callus at the base, hence it is sometimes called spargrass. In late spring, the white persistent glumes resemble oats, the awned seeds having fallen. Self fertilized spikelets may be found at the base of the stem. Most abundant native winter growing grass in Texas. Prefers bottomland soil and mesquite flats. Areas 3, 4, 5, 7.



## Crinkleawn



CRINKLEAWN, *Trachypogon montufari*

Perennial, warm, climax, good.

2-3½' tall, slender and erect with few branches and bearded joints. Racemes erect or nodding bearing spikelets in pairs. One of spikelets has long plumelike bent awn with the other awnless. Rocky slopes and sandy soil. Areas 3, 4, 6.

## White Triodia



WHITE TRIODIA, *Triodia albescens*

Perennial, warm, climax, fair.

1-3' tall, erect, whitish to purplish base. Panicle dense, greenish or purplish to white, narrow, with 7-10 flowered spikelets. Glumes nearly equal  $3\frac{1}{2}$ -4 mm. Grows on prairies especially along ditches—often has a sour odor. Areas 3, 4, 5, 6, 7.

## Purpletop



PURPLETOP, *Triodia flava*

Perennial, warm, climax, fair.

3-5' tall, erect but finally drooping. Sheaths flattened and overlapping at the base. Panicle open and spreading, pyramid shaped. Branchlets of panicle give off a sticky juice with dirt clinging to it. Spikelet 5-7 flowered green to purple, pale when ripe. At a glance, purpletop resembles Johnsongrass in winter. Prefers shady woods and sandy soil. Areas 1, 2, 4.

## Hairy Triodia

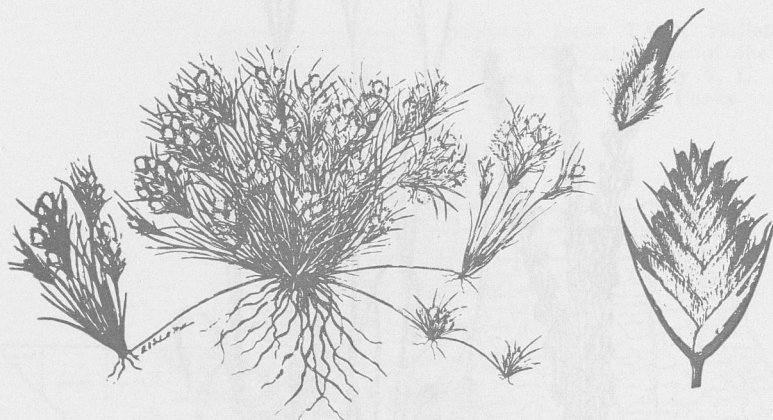


HAIRY TRIODIA, *Triodia pilosa*

Perennial, warm, invading, poor.

4-12" tall, with erect, slender, not branched stems. Blades are short, narrow, fuzzy, with a white margin but gray-green in color. Short, dense, club-shaped panicles, purple to white. Lemmas and paleas have distinct fuzzy, soft, white hair. Dry gravelly soil and overgrazed areas. Areas 3, 4, 5, 6, 7.

## Fluffgrass



FLUFFGRASS, *Triodia pulchella*

Perennial, warm, invading, poor.

4" or less, densely tufted, from slender creeping, rough feeling stolons. Very short, thin wiry blades with fluffy panicles borne down among the leaves—resembles cotton. Spikelets 5-10 flowered, pale, with fuzzy hair on lemmas and paleas. On sandy and gravelly soil and heavily used pastures. Areas 5, 6.

## Eastern Gamagrass



EASTERN GAMAGRASS, *Tripsacum dactyloides*

Perennial, warm, climax, good.

3-6' tall, robust, flattened at the purplish base from stout scaly rhizomes (resemble white grubs). Blades  $1/3$ -1" wide. One to three spikes sometimes a foot long with male spikelets above and female spikelets below. Male spikelets in pairs fitting into the hollows of the seed stem. Female spikelets oval and hard, breaking into bony joints. This grass is closely kin to corn but it has both male and female parts in the same spike. In fertile bottomland soil—swamps and along stream banks. Areas 1, 2, 4.



# Plant Areas of Texas

Revised from 1927 Edition  
No. 500, Stations of the  
United States Department of  
Agriculture, by V. L.  
Cox and H. H. Jones

Area	Number
1. East Texas Pine	1
2. Coastal Prairie	2
3. Rio Grande Valley	3
4. Tallgrass Prairie	4
5. Edwards Plateau	5
6. Trans-Pecos	6
7. Southwestern Plains	7



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