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CHECKLIST OF TEXAS GRASS SPECIES AND A KEY TO THE GENERA

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ABSTRACT

The grass family (Poaceae) is the second largest vascular plant family in Texas. This checklist was created to provide information on the currently known grass species and their distribution in Texas using the 10 vegetational areas for the state. The list provides current scientific names and synonyms as well as common names and an indication of the geographic distribution. The origin (native versus introduced), longevity (perennial versus annual), and season of growth (cool versus warm) are also given for each species. A dichotomous key to the Texas grass genera follows the checklist.

KEY WORDS: Poaceae, Texas, species checklist, synonyms, vegetational areas, key to genera

Buchloe dactyloids (Nutt.) Englem.
buffalograss
(Hitchcock, 1951)

The need for identification and classification of organisms, like grasses, is fundamental to the study of ecology, ecological restoration, forages, and wetlands as well as our immediate surroundings. Communication with other people regarding plants requires more then a simple, "This is buffalograss", with a specimen or image. Plant names, be they common or scientific, are highly important to accurately and quickly communicate knowledge to other people, written or verbally. Checklists have been developed to show species occurrence within certain boundaries or variation within a taxon e.g., "All these are grama grasses."

Texas has about 638 species (Table 1), and about 150 genera of grasses. Table 1 shows a comparison of Gould (1975), Shaw et al. (2011), with our data. Table 2 is a synopsis of our classification, giving the numbers of subfamilies, tribes, genera, and species in the state.

Grass species distributions use the map (Fig. 1) with 10 vegetation areas. These areas are numbered 1-10 and have specific names. The numbers following species in the checklist indicates the distribution of each taxon. For additional information see the following publications and discussions (Cory & Parks 1937; Gould 1962, 1975; Correll & Johnston 1970; Hatch et al. 1990; Powell 1994; Jones et al. 1997; Turner et al. 2003; Shaw et al. 2011).

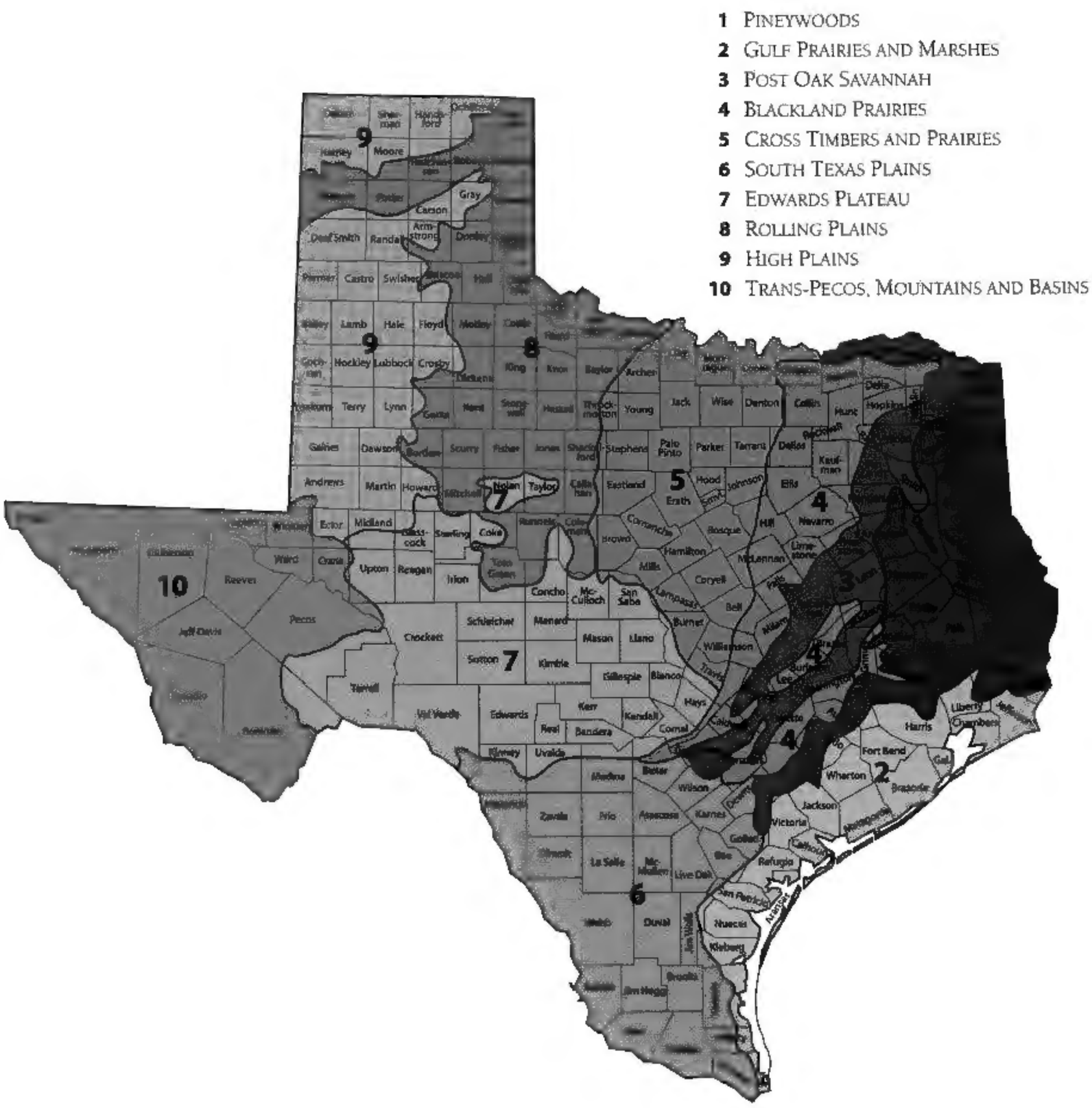

Figure 1. Vegetational areas of Texas.

The current checklist and key are based primarily on the large collection of grasses housed in the S.M. Tracy Herbarium (TAES) and thus reflect a larger base of data than in previous summary accounts of the Texas Poaceae. Although we have attempted to provide relevant data on Texas grasses, this publication obviously will be incomplete in various respects. We emphasize the importance of expanding and refining the understanding of the Texas flora. Thus, we welcome and encourage all interested persons to comment and make additions to the database used for this list. We encourage the documentation of new records by specimen vouchers and expect to add many new records as a result of your collections and our verification.

Table 1. Comparison of selected treatments of Texas Grasses

	Goulds (1975)	Shaw et al. 2011	This Checklist
Subfamilies	6	8	9
Tribes	21	19	23
Genera	122	181	150
Species	523	721	638

Table 2. Synopsis of this grass classification

Subfamilies	**Tribes**	**Genus/Genera**	**Species**
Aristidoideae	1	1	18
Arundinoideae	1	3	4
Bambusoideae	2	3	3
Centothecoideae	1	1	2
Chloridoideae	4	45	215
Danthonioideae	1	2	4
Ehrhartoideae	2	6	11
Panicoideae	2	42	239
Pooideae	9	47	142
Total	**23**	**150**	**638**

This ***Checklist of Texas Grasses*** summarizes species and distribution data that includes the following information:

1. **All species names are in alphabetical order.**

2. The **distribution for each taxon** is **summarized** by the **numbers 1-10**, representing the 10 vegtational areas of Texas (Fig. 1). In addition to this see the six areas of the data below.

3. **Correct names are in italics and boldface**. Appropriate synonyms are not in italics or bold and underlined. Synonyms are included in the alphabetical list. The synonyms are followed by parentheses that include an equal (=) sign and where that synonym is now treated as a taxon.

4. **Authorities are given for genera, species, subspecies, and varieties** (typical subspecies and varieties, called autonyms, do not have authorities).

5. **Scientific names and authorities are followed by common names** (if available). The first common name of a species is shown in all capital letters, and additional common names appear in lowercase letters. The initial letters of common names for genera, if any, are capitalized. If the common name of a genus is used, the name is abbreviated to its first letter.

6. **The codes for origin, longevity, phenology, distribution, and cultivation are given to the right of the accepted species.**

Origin
N= Native I= Introduced

Longevity
A= Annual B= Biennial P= Perennial

Season of Growth
W= Warm season C= Cool season

Cultivated
CUL

7. **Cultivated crops or ornamental taxa are designated with CUL.**

The following codes denote plant origin, longevity, season of growth and wetland classification.

Origin: **N** = Native, **I** = Introduced

Longevity: **A** = Annual, **B** = Biennial, **P** = Perennial

Season of growth: **W** = Warm season growth, **C**= Cool season growth.

Cultivated = **CUL**

2012 Grasses of Texas Checklist

ACHNATHERUM (= *STIPA*)

A. aridum (=***Stipa arida***)

A. clandestinum (=***Stipa clandestina***)

A. curvifolium (=***Stipa curvifolia***)

A. eminens (=***Stipa eminens***)

A. hymenoides (=***Stipa hymenoides***)

A. lobatum (=***Stipa lobata***)

A. nelsonii (=***Stipa perplexa***)

A. perplexum (=***Stipa perplexa***)

A. robustum (=***Stipa robusta***)

A. scribneri (=***Stipa scribneri***)

AEGILOPS (=*TRITICUM)*

A. cylindrica (=***Triticum cylindricum***)

AGROPOGON

A. littoralis (Sm.) C. E. Hubbard

(*Agrostis stolonifera* × *Polypogon monospeliensis)* IPW 10

AGROPYRON Gaertn., Wheatgrass

A. arizonicum (=***Elymus arizonicus***)

A. cristatum (L.) Gaertn., CRESTED W. IPC 8 9 10CUL

A. desertorum (=***A. cristatum***)

A. elongatum (=***Elymus pontica***)

A. intermedium (=***Elymus hispidus***)

A. smithii (=***Elymus smithii***)

A. spicatum (=***Elymus spicatus***)

A. subsecundum (=***Elymus trachycaulus***)

A. trachycaulum (=***Elymus trachycaulus***)

AGROSTIS L., Bentgrass

A. avenacea J. Gmel., PACIFIC B.	IPC								10
A. elliottiana Schult., ELLIOTT B., annual ticklegrass	NAC	1	2	3	4			7	
A. exarata Trin. SPIKE B.	NPC								10
A. gigantea (=***A. stolonifera*****)**									
A. hyemalis (Walt.) B.S.P., WINTER B., fly-away grass, ticklegrass, spring b.	NPC	1	2	3	4	5	6	7	10
A. perennans (Walt.) Tuckerm., AUTUMN B., perennial b.	NPC	1		3					
A. scabra (=***A. hyemalis***)									
A. semiverticillata (=***Polypogon viridis***)									

*A. **stolonifera*** L., REDTOP, creeping b.	IPC		2				7	8		10	
AIRA L., Hairgrass											
*A. **caryophyllea*** L., ANNUAL H.	IAC	1		3							
A. elegans (=*A. **caryophyllea***)											
ALLOLEPIS Soder. & H. F. Deck.											
*A. **texana*** (Vasey) Soder. & H. F. Deck.	NPW									10	
ALOPECURUS L., Foxtail											
*A. **carolinianus*** Walt., CAROLINA F.	NAC	1	2	3	4	5		7			
*A. **myosuroides*** Huds., MOUSE F., slimspike f.	IAC	1	2								
AMELICHLOA (= **STIPA**)											
A. clandestina (= ***Stipa clandestina***)											
ANDROPOGON L., Bluestem											
A. annulatus (=***Dichanthium annulatum***)											
A. altus (= ***Bothriochloa alta***)											
A. aristatus (=***Dichanthium aristatum***)											
A. barbinodis (= ***Bothriochloa barbinodis*** var. ***barbinodis***)											
A. bladhii (= ***Bothriochloa bladhii***)											
A. caucasicus (= ***Bothriochloa bladhii***)											
A. cirratus (= ***Schizachyrium cirratum***)											
A. divergens (= ***Schizachyrium scoparium*** var. ***divergens***)											
A. edwardsianus (= **Bothriochloa edwardsiana**)											
A. elliottii of Texas auth., not Chapm. (=**A. gyrans**)											
A. exaristatus (= ***Bothriochloa exaristata***)											
A. frequens (=***Schizachyrium scoparium*** var. ***scoparium***)											
*A. **gerardii*** Vitman, BIG B.											
var. ***chrysocomus*** (Nash) Fern., BIG B.	NPW								8	9	10
var. ***gerardii*** BIG B., turkey-foot	NPW	1	2	3	4	5	6	7	8	9	10
var. ***paucipilus*** (Nash) Fern., SAND B.	NPW								8	9	10
*A. **glomeratus*** (Walt.) B.S.P., BUSHY B., bushy beardgrass	NPW	1	2	3	4	5	6	7	8	9	10
*A. **gyrans*** Ashe ELLIOTT'S B., Elliott beardgrass	NPW	1	2	3							
A. hallii (=*A. **gerardii*** var. ***paucipilus***)											
A. hirtiflorus (= ***Schizachyrium sanguineum*** var. ***hirtiflorum***)											
A. hybridus (= ***Bothriochloa hybrida)***											
A. intermedia (= ***Bothriochloa bladhii***)											

A. ischaemum var. songaricus (= ***Bothriochloa ischaemum***)

A. littoralis (=***Schizachyrium scoparium*** var. ***littoralis***)

A. longipaniculata (=***Bothriochloa laguroides*** subsp. ***torreyana***)

A. neomexicanum (= ***Schizachyrium neomexicanum***)

A. nodosus (= ***Dichanthium aristatum***)

A. perforatus (= ***Bothriochloa barbinodis***)

A. pertusus (= ***Bothriochloa pertusa***)

A. saccharoides var. torreyanus (= ***Bothriochloa laguroides subsp. torreyana)***

A. scoparius var. divergens (= ***Schizachyrium scoparium var. divergens)***

A. scoparius var. virilis (= ***Schizachyrium scopariumvar. divergens)***

A. sericeus (= ***Dichanthium sericeum***)

A. spadiceus (=***Schizachyrium spadiceum***)

A. springfieldii (= ***Bothriochloa springfieldii***)

A. ternarius Michx. SPLITBEARD B., splitbeard beardgrass, silvery beardgrass, feather b. — NPW — 1 2 3 4 5 — — — 10

A. virginicus L., BROOMSEDGE B., yellowsedge b., Virginia b., broomsedge — NPW — 1 2 3 4 5 6 7

A. virginicus var. abbreviatus (=***A. glomeratus***)

A. wrightii (= ***Bothriochloa wrightii***)

ANISTANTHA (= *BROMUS*)

A. diandrus (=***Bromus diandrus***)

A. rubens (=***Bromus rubens***)

A. sterilis (=***Bromus sterilis***)

A. tectorum (=***Bromus tectorum***)

ANTHAENANTIA P. Beauv., Silkyscale

A. rufa (Ell.) Schult., PURPLE S. — NPW — 1 2

A. villosa (Michx.) P. Beauv., GREEN S., purple s. — NPW — 1 2 3

ANTHOXANTHUM L., Vernalgrass

A. aristatum Boiss., SMALL SWEET V., v. — IAC

A. odoratum L., SWEET V. — IPC

APERA Adans.

A. spica-venti (L.) P.Beauv., LOOSE SILKYBENT, windgrass — IAC — 4

ARISTIDA L., Threeawn											
*A. **adscensionis*** L., SIXWEEKS T.	NAW					6	7	8	9	10	
A. affinis (=*A. **palustris***)											
*A. **arizonica*** Vasey, ARIZONA T.	NPW									10	
A. barbata (=*A. **havardii***)											
*A. **basiramea*** Engelm. *ex* Vasey, FORKTIP T.	NAW			3	4						
A. brownii (= *A. **purpurea***)											
*A. **desmantha*** Trin. & Rupr., CURLY T.,western tripleawn grass, western t.	NAW					6	7	8	9	10	
*A. **dichotoma*** Michx., CHURCHMOUSE T., povertygrass	NAW	1		3	4						
*A. **divaricata*** Humb. & Bonpl. *ex* Willd., POVERTY T.	NPW						7		9	10	
A. fendleriana (=*A. **purpurea*** var. ***fendleriana***)											
A. glauca (=*A. **purpurea*** var. ***nealleyi)***											
*A. **gypsophila*** Beetle, GYP T.	NPW									10	
A. hamulosa (=*A. **ternipes***)											
*A. **havardii*** Vasey, HAVARD T.	NPW								9	10	
A. intermedia (=*A. **longespica*** var. ***geniculata***)											
*A. **lanosa*** Muhl. *ex* Ell., WOOLLYSHEATH T., woolly tripleawn grass, woolly t.	NPW		1	2	3	4					
A. longiseta (=*A. **purpurea*** var. ***longiseta)***											
A. longiseta var. rariflora (=*A. **purpurea*** var. ***longiseta***)											
A. longiseta var. robusta (=*A. **purpurea*** var. ***longiseta***)											
*A. **longespica*** Poir., SLIMSPIKE T.											
var. ***geniculata*** (Raf.) Fern., KEARNEY T., plains t.	NAW	1	2	3	4	5	6	7			
var. ***longespica***, SLIMSPIKE T., slender t.	NAW	1	2	3	4						
*A. **oligantha*** Michx., OLDFIELD T., prairie t., few-flowered aristida	NAW	1	2	3	4	5	6	7	8	9	10
A. orcuttiana (=*A. **schiediana***)	NPW	1						7			
*A. **palustris*** (Chapm.) Vasey, LONGLEAF T.	NPW	1	2	3	4			7			
*A. **pansa*** Woot. & Standl., WOOTEN T.	NPW									10	
*A. **purpurascens*** Poir., ARROWFEATHER T., broomsedge, arrowgrass											
*A. **purpurea*** Nutt.	NPW									10	
var. ***fendleriana*** (Steud.) Vasey , FENDLER T.											
var. laxiflora (=*A. **purpurea*** var. ***purpurea***)											

var. ***longiseta*** (Steud.) Vasey, RED T., dogtown-grass,	NPW	2	4	5	6	7	8	9	10	
var. ***nealleyi*** (Vasey) Allred, NEALLEY T.	NPW			5	6	7	8	9	10	
var. ***purpurea***, PURPLE T., purple needlegrass	NPW	2	4	5	6	7	8	9	10	
var. ***wrightii*** (Nash) Allred, WRIGHT"S T.	NPW		4	5	6	7	8	9	10	
A. ***ramosissima*** Engelm. *ex* A. Gray, S-CURVE T.	NAW	1				7				
A. roemeriana (=*A.* ***purpurea*** var. ***purpurea***)										
A. ***schiedeana*** Trin. & Rupr., SINGLEAWN ARISTIDA, beggarstick t., Orcutt's t.	NPW								10	
A. ***ternipes*** Cav.										
var. ***gentilis*** (Henr.) Allred, HOOK T.	NPW								10	
var. ***ternipes***, SPIDERGRASS	NPW								10	
A. virgata (=*A.* ***purpurascens***)										
A. wrightii (=*A.* ***purpurea*** var. ***wrightii***)										
ARTHRAXON P. Beauv.										
A. ***hispidus*** (Thunb.) Makino, JOINTHEAD	IAW	1			5					
ARUNDINARIA Michx.										
A. ***gigantea*** (Walt.) Muhl., GIANTCANE, southern cane	NPC	1	2	3	4	5		7		10
A. tecta (=*A.* ***gigantea***)										
ARUNDO L.										
A. ***donax*** L., GIANTREED	IPW		2	3	4	5	6	7	8	9	10 CUL
AVENA L., Oat										
A. ***fatua*** L.										
var. ***fatua***, WILD O.	IAC		2	3				7	8	9	10
var. ***sativa*** (L.) Hausskn., O., cultivated o.	IAC	1	2	3	4	5	6	7	8	9	10 CUL
A. sativa (=*A.* ***fatua*** var. ***sativa***)										
AXONOPUS P. Beauv., Carpetgrass										
A. affinis (=*A.* ***fissifolius***)										
A. ***compressus*** (Sw.) P. Beauv., BROADLEAF C.	NPW	1	2							
A. ***fissifolius*** (Raddi) Kuhlman, COMMON C.	NPW	1	2	3						
A. ***furcatus*** (Flugge) A. Hitchc., BIG C., flat crabgrass	NPW	1	2	3						
BLEPHARIDACHNE Hack.										
B. bigelovii (S. Wats.) Hack., BIGELOW DESERTGRASS	NPW								10	

BLEPHARONEURON Nash											
B. tricholepis (Torr.) Nash, PINE DROPSEED, hairy dropseed	NPW										10
BOTHRIOCHLOA Kuntze., Bluestem											
B. alta (A. Hitchc.) Henr., TALL B.	NPW										10
B. barbinodis (Lag.) Hert., CANE B.											
var. ***barbinodis***, CANE B., cane beardgrass, bristlejoint b.	NPW		2			5	6	7	8	9	10
var. ***perforata*** (Fourn.) Gould, PINHOLE B., pinhole beardgrass, perforated b.	NPW		2			5	6	7	8	9	10
B. bladhii (Retz.) S. T. Blake, AUSTRALIAN B.	IPW		2	3			6				
B. caucasica (=***B. bladhii***)											
B. edwardsiana (Gould) L. R. Parodi, MERRILL'S B.	NPW							7			
B. exaristata (Nash) Henr., AWNLESS B.	NPW		2								
B. hybrida (Gould) Gould, HYBRID B.	NPW		2				6	7			
B. intermedia (=***B. bladhii***)											
B. ischaemum (L.) Keng, KING RANCH B.	IPW	1	2	3	4	5	6	7	8	9	10
B. laguroides (DC.) Hert.											
subsp. ***torreyana*** (Steud.) Allred & Gould, SILVER B., silver beardgrass	NPW	1	2	3	4	5	6	7	8	9	10
B. longipaniculata (=***B. laguroides*** subsp. ***torreyana***)											
B. pertusa (L.) A. Camus, PITTED B.	IPW						6				
B. sachharoides var. torreyana (=***B. laguroides*** subsp. ***torreyana***)											
B. springfieldii (Gould) L. R. Parodi, SPRINGFIELD B.	NPW									9	10
B. wrightii (Hack.) Henr., WRIGHT'S B.	NPW										10
BOUTELOUA Lag. *mut.* Lag., Grama											
B. aristidoides (Kunth) Griesb.	NAW						6	7			10
var. ***aristidoides***, NEEDLE G., sixweek g.											
var. ***arizonica*** (M. E. Jones) Allred											
B. barbata Lag., SIXWEEKS G.	NAW	1	2	3	4	5	6	7	8	9	10
B. breviseta Vasey, GYP G.	NPW										10
B. chondrosioides (Kunth) Benth. *ex* S. Wats., SPRUCETOP G.	NPW										10
B. curtipendula (Michx.) Torr.											
var. ***caespitosa*** Gould & Kapadia, SIDEOATS G.	NPW					5	6	7			10
var. ***curtipendula***, SIDEOATS G.	NPW		2	3	4	5	6	7	8	9	10
var. tenuis Gould & Kapadia, CREEPING SIDEOATS G.	IPW							7			
B. dactyloides (=***Buchloe dactyloides)***											

*B. **eriopoda*** (Torr) Torr , BLACK G , woollyfoot g	NPW							7	8	9	10	
*B. **gracilis*** (Kunth) Lag , *ex* Griffiths, BLUE G	NPW					5		7	8	9	10	
*B. **hirsuta*** Lag , HAIRY G	NPW	1	2	3	4	5	6	7	8	9	10	
*B. **kayii*** Warnock, KAY G	NPW							7			10	
*B. **pectinata*** Featherly, TALL G	NPW							7			10	
*B. **ramosa*** Scribn *ex* Vasey, CHINO G	NPW									9	10	
*B. **repens*** (Kunth) Scribn , & Merr , SLENDER G , large-mesquite g	NPW						6	7				
*B. **rigidiseta*** (Steud) A Hitchc var ***rigidiseta***, TEXAS G , mesquitegrass	NPW		2	3	4	5	6	7	8	9	10	
*B. **simplex*** Lag , MAT G	NAW										10	
*B. **trifida*** Thurb *ex* S Wats , RED G , threeawn g var ***trifida***	NPW		2	3		5	6	7	8	9	10	
*B. **uniflora*** Vasey, NEALLEY G , one-flowered g	NPW							7			10	
*B. **warnockii*** Gould & Kapadia, WARNOCK G	NPW										10	

BRACHIARIA (Trin) A Griseb , Signalgrass

B arizonica (***Urochloa arizonica***)

B brizantha (=***U. brizantha***)

B ciliatissima (***U. ciliatissima***)

*B. **eruciformis*** (J E Smith) A Griseb	IAW							7				

B fasciculata (***U. fusca***)

B mutica (***U. mutica***)

B plantaginea (=***U. platyphylla***)

B platyphylla (***U. platyphylla***)

B ramosa (=***U. fasciculata***)

B reptans (***U. reptans***)

B texana (***U. texana***)

BRACHYELYTRUM P Beauv

*B. **erectum*** (Schreb *ex* Spreng) P Beauv , SOUTHERN SHORTHUSK	NPC	1										

BRACHYPODIUM P Beauv

*B. **distachyon*** (L) P Beauv , PURPLE FALSEBROME	IAC					5		7				

BRIZA L , Quakinggrass

*B. **maxima*** L , BIG Q	IAC	1	2									CUL
*B. **minor*** L , LITTLE Q	IAC	1	2	3	4							

BROMOPSIS (***BROMUS)***

B anomalus (***Bromus anomalus***)

B ciliatus (***Bromus ciliatus***)

B inermis (***Bromus inermis***)

B lanatipes (***Bromus lanatipes***)

B pubescens (***Bromus pubescens***)

B texensis (***Bromus texensis***)

BROMUS L , Brome

B. anomalus Rupr *ex* Fourn , NODDING B , anomalous b	NPC							7			10
B. arizonicus (Shear) Stebbins, ARIZONA B	NPC										10
B. carinatus Hook & Arn , CALIFORNIA B	NPC										10
B. catharticus M A Vahl, RESCUEGRASS, rescue b , Schraders-grass	IAC	1	2	3	4	5	6	7	8	9	10
B. ciliatus L , FRINGED B	NPC										10
B. diandrus Roth, RIPGUT B , ripgut grass	IAC	1		3				7			10
B frondosus (=***B. porteri***)											
B. hordeaceus L , SOFT B , soft chess	IAC	1		3	4						
B. inermis Leyss , SMOOTH B , bromo	IPC										
B. japonicus Thunb *ex* Murray, JAPANESE B , Japanese chess, spreading b	IAC		2	3	4	5	6	7	8	9	10
B. lanatipes (Shear) Rydb , WOOLY B	NPC							7			10
B. lanceolatus Roth, MEDITERRANEAN B	IAC			3	4						
B madritensis subsp rubens (=***B. rubens***)											
B macrostachys (***B. lanceolatus***)											
B marginatus (***B. carinatus***)											
B mollis (***B. hordeaceus***)											
B. polyanthus Scribn , GREAT BASIN B	NPC										10
B. porteri (Coult) Nash, PORTER`S B	NPC										10
B. pubescens Muhl *ex* Willd , CANADA B	NPC	1		3	4			7			
B. racemosa L , SMOOTH B	IAC	1									
B richardsonii (***B. ciliatus***)											
B rigidus (***B. diandrus***)											
B. rubens L , RED B , foxtail b	IAC							7			10
B. secalinus L , RYE B	IAC	1	2	3	4	5		7	8	9	
B. sterilis L , STERILE B	IAC							7			
B. tectorum L , JUNEGRASS, cheatgrass b , downy b	IAC				4	5		7	8	9	10
B. texensis (Shear) A Hitchc , TEXAS B	NPC		2				6	7			
B unioloides (***B. catharticus***)											
B willdenowii (=***B. catharticus***)											

BUCHLOË Engelm											
B. dactyloides (Nutt.) Engelm., BUFFALOGRASS	NPW	1	2	3	4	5	6	7	8	9	10
CALAMOVILFA (A. Gray) Hack											
C. gigantea (Nutt.) Scribn. & Merr. BIG SANDREED, giant reedgrass	NPW								8	9	10
CATAPODIUM *Link* (= ***DESMAZERIA***)											
C. rigidum (= ***Desmazeria rigida***)											
CATHESTECUM J. Presl											
C. erectum Vasey & Hack., FALSE GRAMA	NPW							7			10
CENCHRUS L., Sandbur, Cenchrus											
C. brownii Roem. & Schult., GREEN S.	IPW						6				
C. ciliaris (= ***Pennisetum ciliare***)											
C. echinatus L., SOUTHERN S., hedge-hog grass	NAW	1	2	3	4		6				
C. incertus (= ***C. spinifex***)											
C. longespinus (Hack.) Fern., LONGSPINE S.	NAW			3	4	5	6	7	8	9	10
C. myosuroides Kunth, BIG C., big sandbur, cadillo	NPW		2				6	7			10
C. pauciflorus (= ***C. spinifex***)											
C. setigerus (= ***Pennisetum setigerum***)											
C. spinifex A. Cav., COMMON S.	NPW	1	2	3	4	5	6	7	8	9	10
CERATOCHLOA (= ***BROMUS***)											
C. carinata (= ***Bromus carinatus***)											
C. catharticus (= ***Bromus catharticus***)											
C. polyantha (= ***Bromus polyanthus***)											
CHASMANTHIUM Link, Woodoats											
C. latifolium (Michx.) H. Yates, BROADLEAF W.	NPW	1	2	3	4	5	6	7	8		
C. laxum (L.) H. Yates, NARROWLEAF W.	NPW	1	2	3	4						
C. sessiliflorum (= ***C. laxum***)											
CHLORIS Sw., Windmillgrass, Chloris											
C. andropogonoides E. Fourn., SLIMSPIKE W.	NPW		2					7			
C. barbata (L.) Sw., SWOLLEN W.	NAW		2								
C. x brevispica (***C. x subdolichostachya***)											
C. canterae Arechav., PARAGUAYAN W.	IPW		2	3			6	7			
C. chloridea (= ***Enteropogon chlorideus***)											
C. ciliata Sw., FRINGED C.	NPW		2				6	7			

C. crinita (*Trichloris crinita*)											
C. cucullata Bisch., HOODED W., hooded fingergrass	NPW										
C. divaricata R. Br., SPREADING W	IPW		2		4	5	6	7	8	9	10
C. gayana Kunth, RHODESGRASS	IPW		2				6				
C. inflata (*C. barbata*)											
C. petraea (*Eustachys petraea*)											
C. pilosa Schumach (not collected for several years)	IAPW		2								CUL
C. pluriflora (*Trichloris pluriflora*)											
C. polydactyla (misapplied *C. elata* of FL)											
C. x *subdolichostachya* Muell., SHORTSPIKE W	NPW		2	3	4	5	6	7			
C. submutica Kunth, MEXICAN W	IPW										10
C. texensis Nash, TEXAS W	NPW		2	3							
C. verticillata Nutt., TUMBLE W	NPW	1	2	3	4	5	6	7	8	9	10
C. virgata Sw., SHOWY C., feather fingergrass	NAW			3	4	5		7	8	9	10
CHONDROSUM (*BOUTELOUA*)											
C. barbatum (*Bouteloua barbata*)											
C. brevisetum (*Bouteloua breviseta*)											
C. eriopodum (*Bouteloua eriopoda*)											
C. gracile (*Bouteloua gracilis*)											
C. hirsutum (*Bouteloua hirsuta*)											
C. kayi (*Bouteloua kayi*)											
C. ramosum (*Bouteloua ramosa*)											
C. simplex (*Bouteloua simplex*)											
C. trifidum (*Bouteloua trifida*)											
CHRYSOPOGON Trin											
C. pauciflorus (Chapm.) Benth. *ex* Vasey, FALSE BEARDGRASS	NAW		2								
C. zizanioides (L.) Roberty, VITIVER	IPW			3							CUL
CINNA L.											
C. arundinacea L., STOUT WOODREED, wood reedgrass, sweet woodgrass	NPC	1									
COELORACHIS (*MNESITHEA*)											
C. cylindrica (*Mnesithea cylindrica*)											
C. rugosa (*Mnesithea rugosa*)											
COIX L.											
C. lacryma-jobi L., JOBS-TEARS	IPW										CUL

CORTADERIA Stapf												
*C. **jubata*** (Lemoine *ex* Carriere) Stapf, PURPLE PAMPUSGRASS	IPW											
*C. **selloana*** (Schult & Schult. f.) Asch & Graebn., PAMPASGRASS	IPW	1	2	3	4	5	6	7	8	9	10	CUL
COTTEA Kunth												
*C. **pappophoroides*** Kunth, COTTAGRASS	NPW							7			10	
CRITESION (= *HORDEUM*)												
C. jubatum (= ***Hordeum jubatum***)												
C. murinum (= ***Hordeum murinum***)												
C. pusillum (= ***Hordeum pusillum***)												
CTENIUM Panz., TOOTHACHEGRASS												
*C. **aromaticum*** (Walt.) A. Wood, TOOTHACHEGRASSS, orangegrass	NPW	1										
CYNODON L. Rich., Bermudagrass												
*C. **aethiopicus*** Clayton & Harlan, ETHIOPIAN DOGTOOTHGRASS	IPW											CUL
*C. **dactylon*** (L.) Pers., B., pata del gallo, common b	IPW	1	2	3	4	5	6	7	8	9	10	CUL
*C. x **magennisii*** Hurcombe, MAGENNIS DOGTOOTH GRASS	IPW											CUL
*C. **nlemfuensis*** Vanderyst, AFRICA B	IPW		2				6					CUL
*C. **plectostachyus*** (K. Schum.) Pilg., STARGRASS	IPW					6						CUL
CYNOSURUS L.												
*C. **echinatus*** L., BRISTLY DOGTAIL	IAC			3								
DACTYLIS L.												
*D. **glomerata*** L., ORCHARDGRASS	IPC	1	2					7		9	10	CUL
DACTYLOCTENIUM Willd.												
*D. **aegyptium*** (L.) Willd., DURBAN CROWFOOTGRASS, Egyptian crowfootgrass	IAW	1	2	3	4	5	6	7				
DANTHONIA DC., Danthonia, Oatgrass												
*D. **sericea*** Nutt., DOWNY O	NPC	1										
*D. **spicata*** (L.) P. Beauv. *ex* Roem. & Schult., POVERTY O., poverty d	NPC	1		3		5						
DASYOCHLOA Willd. *ex* Rydb.												
*D. **pulchella*** (Kunth) Willd. *ex* Rydb., FLUFFGRASS	NPW							7	8	9	10	

DESMAZERIA Dumort											
D. rigida (L) T Tutin, STIFFGRASS	IAC	1	2	3	4	5	6	7			
DIARRHENA P Beauv											
D americana of TX authors (***D. obovata***)											
D. obovata (Gleason) A Brandenburg, AMERICAN BEAKGRAIN	NPC	1									
DICHANTHELIUM (A Hitchc & Chase) Gould, Rosettegrass											
D. aciculare (Desv *ex* Poir) Gould & C Clark											
var. ***aciculare***, NARROW-LEAF R.	NPC	1	2	3	4						
var ***angustifolium*** (Ell) Freckmann & Lelong	NPC										
D. acuminatum (Sw) Gould & C Clark											
var ***acuminatum***, WOOLLY R.	NPC	1	2	3	4	5	6	7	8		10
var ***densiflorum*** (Rand & Redf) Gould & C Clark	NPC		2								
var ***lindheimeri*** (Nash) Gould & C Clark, LINDHEIMER R.	NPC	1	2	3	4	5		7			
var ***longiligulatum*** (Nash) Gould & C Clark	NPC	1									
var ***villosum*** (Sw) Gould & C Clark,WHITEHAIRED R.	NPC	1		3		5					
D angustifolium (***D. aciculare***)											
D. boscii (Poir) Gould & C Clark, BOSC'S R.	NPC	1	2	3							
D. clandestinum (L) Gould, DEERTONGUE R.	NPC	1		3							
D. commutatum (Schult) Gould, VARIABLE R.	NPC	1	2								
D. consanguineum (Kunth) Gould & C Clark, KUNTH'S R.	NPC	1	2								
D. depauperatum (Muhl) Gould, STARVED R.	NPC	1									
D. dichotomum (L) Gould, FORKED R.											
var ***dichotomum***	NPC	1	2	3	4	5					
var ensifolium (***D. ensifolium***)											
var ***lucidum*** (Ashe) Freckmann & Lelong	NPC										
var ***nitidum*** (Lam) Freckmann & Lelong	NPC										
var ***ramulosum*** (Torr) LeBlond	NPC										
var ***uncephyllum*** (Trin) Davidse	NPC										
D. ensifolium (Baldw *ex* Ell) Gould BOG R.	NPC	1									
D lanuginosum (= ***D. acuminatum*** var ***acuminatum***)											
D. latifolium (L) Harvil, BROADLEAF R.	NPC	1									
D. laxiflorum (Lam) Gould, OPENFLOWER R.	NPC	1		3							
D leucoblepharis (***D. strigosum***)											
D lindheimeri (= ***D. acuminatum*** var ***lindheimeri***)											

D. linearifolium (Scribn.) Gould, SLIMLEAF R.	NPC	1	2	3	4	5		7			
D. malacophyllum (Nash) Gould, SOFTLEAF R.	NPC					5					
D. nodatum (A. Hitchc. & M. A. Chase) Gould, SARITA R.	NPC		2				6				
D. oligosanthes(Schult.) Gould, SCRIBNER'S R.	NPC	1	2	3	4	5	6	7	8	9	10
D. ovale (Ell.) Gould & C. Clark, EGG-LEAF R.	NPC	1									
D. pedicellatum (Vasey) Gould, CEDAR R.	NPC				4	5		7			
D. polyanthes (= ***D. sphaerocarpon***)											
D. portoricense (Desv. *ex* Hamilt.) B. Hansen & R. Wunderlin, BLUNTGLUME R.	NPC	1	2								
D. ravenelii (Scribn. & Merr.) Gould, RAVENEL'S R.	NPC	1	2	3							
D. scabriusculum (Ell.) Gould & C. Clark, SWAMP R.	NPC	1									
D. scoparium (Lam.) Gould, VELVET R.	NPC	1		3							
D. scribnerianum (= ***D. oligosanthes***)											
D. sphaerocarpon (Ell.) Gould & C. Clark, ROUNDSEED R.											
var. ***isophyllum*** (Scribn.) Gould & C. Clark, LEAFY R.	NPC	1									
var. ***sphaerocarpon***, ROUNDSEED R.	NPC	1	2	3	4	5	6	7			10
D. strigosum (Muhl. *ex* Ell.) Freckmann											
var. ***strigosum***, CUSHION R.	NPC										
D. tenue (hybrid see FNA)											
D. wrightianum Scribn., WRIGHT'S R.	NPC	1									
DICHANTHIUM Willem., Bluestem											
D. annulatum (Forssk.) Stapf, KLEBERG B.	IPW		2				6				
D. aristatum (Poir.) C. E. Hubb., ANGLETON B.	IPW		2				6				
D. sericeum (R. Br.) A. Camus, SILKY B.	IPW		2				6				
DIGITARIA Haller, Crabgrass, Cottontop											
D. adscendens (= ***D. sanguinalis***)											
D. arenicola (Swallen) Beetle, SAND WITCHGRASS	NPW		2								
D. bicornis (Lam.) Roem. & Schult., CRABGRASS, tropical crabgrass	IAW		2								
D. californica (Benth.) Henr., ARIZONA COTTONTOP, California cottontop	NPW		2		4	5	6	7	8	9	10
D. ciliaris (= ***D. sanguinalis***)											
D. cognata (Schult.) Pilger											
subsp. cognata, FALL WITCHGRASS, diffuse crabgrass	NPW	1	2	3	4	5	6	7			
subsp. ***pubiflora*** [Vasey *ex* L. H. Dewey] Wipff, FALL WITCHGRASS, diffuse crabgrass	NPW	1	2	3	4	5	6	7	8	9	10
D. diversiflora (= ***D. bicornis***)											

D. filiformis (L) Koel , SLENDER CRABGRASS, slender fingergrass	NPW	1	2	3							
D filiformis var villosa (***D. villosa***)											
D. hitchcockii (Chase) Stuck , SHORTLEAF COTTONTOP	NPW						6				10
D. insularis (L) Mez *ex* Ekman, SOURGRASS	NPW		2	3			6	7			10
D. ischaemum (Schreb) Schreb *ex* Muhl , SMOOTH CRABGRASS	IAW	1				5					
D. patens (Swallen) Henr , TEXAS COTTONTOP	NPW		2				6	7			
D pubiflorum (***D. cognata***)											
D runyonı (***D. texana***)											
D. sanguinalis (L) Scop , HAIRY CRABGRASS	IAW	1	2	3	4	5	6	7	8	9	10
D. texana A Hitchc , TEXAS CRABGRASS, Texas fingergrass, dune crabgrass	NPW		2				6				
D. villosa (Walt) Pers , SHAGGY CRABGRASS	NPW	1	2	3							
D. violescens Link, VIOLET CRABGRASS	IAW	1									
DISTICHLIS Raf , Saltgrass											
D. spicata (L) Greene											
var ***spicata***, S , spicata s	NPW	1	2					7	8	9	10
D stricta (***D. spicata***)											
D texana (***Allolepis texana***)											
ECHINOCHLOA P Beauv , Cockspur, Barnyardgrass											
E. colona (L) Link, JUNGLERICE	IAW	1	2	3	4	5		7	8	9	10
E. crus-galli (L) P Beauv ,											
var ***crus-galli*** BARNYARDGRASS	IAW	1	2	3	4	5	6	7	8	9	10
var ***frumentacea*** (Link) W F Wight	IAW		2								
E. crus-pavonis (Kunth) Schult											
var ***crus-pavonis***, GULF C	NAW		2								
var ***macera*** (Wieg) Gould	NAW		2	3	4	5	6	7	8	9	10
E. esculenta (A Braun) H Scholtz, JAPANESE MILLET	IAW										CUL
E. muricata (P Beauv) Fern											
var ***microstachya*** Wieg	NAW	1	2	3	4	5	6	7	8	9	10
var ***muricata***, ROUGH B	NAW	1	2	3	4	5		7			10
E. polystachya (Kunth) A Hitchc , CREEPING RIVERGRASS	NPW		2								
E paludigena (Turner et al , not verified)											
E. walteri (Pursh) Heller, WATER MILLET	NAW	1	2	3	4			7			
EHRHARTA Thunb											
E. calycina J E Smith, SOUTHERN VELDGRASS	IPC			3	4						CUL

ELEUSINE Gaertn , Goosegrass												
E. indica (L) Gaertn , G , yardgrass, zacate guacima	IAW	1	2	3	4	5	6	7	8	9	10	
E. tristachya (Lam) Lam , THREESPIKE G	IAW			3								
ELIONURUS Humb & Bonpl *ex* Wılld., Balsamscale												
E. barbiculmis Hack , WOOLSPIKE B , brıstlenode b	NPW										10	
E. tripsacoides Humb & Bonpl *ex* Wılld , PAN AMERICAN B , b	NPW		2				6					
ELYMUS L , Wıldrye, Wheatgrass												
E. arizonicus (Scrıbn & J G Smıth) Gould, ARIZONA WHEATGRASS	NPC										10	
E. canadensis L												
var ***canadensis***, CANADA WILDRYE , noddıng wıldrye	NPC	1	2	3	4	5		7	8	9	10	
E curvatus (***E. virginicus***)												
E elymoıdes (=***E. longifolius***)												
E elongatus (=***E. ponticus***)	IPC									9	10	
E glabrıflorus (***E. virginicus***)												
E. hispidus (P Opız) Melderıs, INTERMEDIATE WHEATGRASS	IPC									9	10	CUL
E ınterruptus (***E. canadensis***)												
E junceus (***Psathrostachys juncea***)												
E macgregorıı (***E. virginicus***)												
E. longifolius (J G Smıth) Gould, LONGLEAF SQUIRRELTAIL	NPC							7	8	9	10	
E. ponticus (Podp) Melderıs ,TALL WHEATGRASS	IPC								8	9		CUL
E prınglei (***E. canadensis***)												
E. repens (L) Gould, QUACKGRASS	IPC									9	10	
E. smithii (Rydb) Gould, WESTERN WHEATGRASS	NPC					5		7	8	9	10	
E. spicatus (Pursh) Gould, BLUEBUNCH WHEATGRASS	NPC										10	
E texensıs (? hybrıd)												
E. trachycaulus (Lınk) Gould *ex* Shınners, SLENDER WHEATGRASS	NPC								8	9	10	
E trıtıcoıdes (***Leymus triticoides***)												
E. villosus Muhl *ex* Wılld., DOWNY WILDRYE	NPC						6	7				
E. virginicus L , VIRGINIA WILDRYE	NPC	1	2	3	4	5	6	7	8			

ELYTRIGIA **(=*ELYMUS*)**

E arizonica (***Elymus arizonicus***)

E intermedia (***Elymus hispidus***)

E pontica **(=*Elymus elongatus*)**

E smithii (***Elymus smithii***)

ENNEAPOGON Desv *ex* P Beauv , Pappusgrass

E. desvauxii P Beauv , FEATHER P , spike p , Wright's p — NPW — 7 8 9 10

ENTEROPOGON Nees, Umbrellagrass

E. chlorideus (J Presl) W Clayton, BURYSEED U — NPW — 2 4 6

ERAGROSTIS Wolf, Lovegrass

E. airoides Nees, ILLUSIONGRASS — IPW — 3

E. amabilis (L) Wight & Arnolt *ex* Nees, JAPANESE L — IAW — 1 2

E arida (***E. pectinacea*** var ***miserrima***)

E. barrelieri Daveau, MEDITERRANEAN L — IAW — 2 3 4 5 6 7 8 9 10

E beyrichii **(=*E. secundiflora*)**

E. capillaris (L) Nees, LACEGRASS, tiny l — NAW — 2 3 8

E. cilianensis (All) Vignola *ex* Janchen, STINKGRASS — IAW — 1 2 3 4 5 6 7 8 9 10

E. ciliaris (L) R Br , GOPHERTAIL L — NAW — 2

E. curtipedicellata Buckl , GUMMY L , shortstalked l — NPW — 1 2 3 4 5 6 7 8 9 10

E. curvula (Schrad) Nees, WEEPING L — IPW — 2 3 4 5 7 8 9 10 CUL

E diffusa (***E. pectinacea*** var ***pectinacea***)

E. elliottii S Wats , ELLIOTT L — NPW — 1 2 3

E. erosa Scribn , CHIHUAHUA L — NPW — 7 10

E glomerata (***E. japonica***)

E. hirsuta (Michx) Nees, BIGTOP L — NPW — 1 2 3

E. hypnoides (Lam) Britt , TEAL L , smooth creeping grass — NAW — 1 2 3 4 5 7

E. intermedia A Hitchc var ***intermedia***, PLAINS L — NPW — 2 3 4 5 6 7 10

E. japonica (Thunb) Trin , POND L — NAW

E. lehmanniana Nees, LEHMANN L — IPW — 3 4 5 6 10 CUL

E. lugens Nees, MOURNING L — NPW — 6 7 10

E megastachya (***E. cilianensis***)

E. mexicana (Hornem) Link subsp ***mexicana***, MEXICAN L — NAW — 10

E. minor Host, LITTLE L	NAW											10
E neomexicana (***E. mexicana*** var ***mexicana***)												
E oxylepis (***E. secundiflora*** var ***oxylepis)***												
E. palmeri S Wats , RIO GRANDE L	NPW						6					
E. pectinacea (Michx) Nees, SPREADING L												
var. ***miserrima*** (E Fourn) J Reeder	IAW		2		4		6	7		9	10	
var ***pectinacea,*** SPREADING L	IAW		2		4	5		7		9	10	
E perplexa (***E. pilosa***)												
E pilifera (***E. trichodes***)												
E. pilosa (L) P Beauv , INDIA L	IAW									9		
E poaeoides (***E. minor)***												
E. refracta (Muhl *ex* Ell) Scribn , COASTAL L , meadow L	NPW	1	2	3								
E. reptans (Michx) Nees, CREEPING L	NAW	1	2	3	4	5	6	7	8			
E. secundiflora J Presl, RED L												
subsp . ***oxylepis*** (Torr) S D Koch, RED L	NPW	1	2	3	4	5	6	7	8	9		
E. sessilispica Buckl , TUMBLE L	NPW		2		4	5	6		8	9		
E. silveana Swallen, SILVEUS L	NPW		2					7				
E. spectabilis (Pursh) Steud , PURPLE L	NPW	1	2	3	4	5	6	7	8	9		
E. spicata Vasey, SPIKE L	NPW						6					
E. superba Peyr , WILLMANN L	IPW			3	4	5	6	7			CUL	
E. swallenii A Hitchc , SWALLEN L	NPW		2									
E. tef (Zucc) Trotter, TEFF	IPW					5		7			CUL	
E tenella (***E. amabilis***)												
E tephrosanthes (***E. pectinacea*** var ***miserrima***)												
E. trichodes (Nutt) Wood, SAND L	NPW	1		3	4	5	6	7	8	9		
E trichodes var pilifera *(E. trichodes)*												
EREMOCHLOA Buse												
E. ophiuroides (Munro) Hack , CENTIPEDEGRASS	IPW	1		3							CUL	
ERIANTHUS (**SACCHARUM**)												
E alopecuroides (***S. alopecuroideum***)												
E contortus (***S. brevibarbe*** var ***contortum*)**												
E giganteus (***S. giganteum***)												
E strictus (***S. baldwinii***)												
ERIOCHLOA Kunth, Cupgrass												
E. acuminata (J Presl) Kunth												
var ***acuminata,*** SOUTHWESTERN C	NAW							7			10	
var ***minor*** (Vasey) R B Shaw, SMALL SOUTHWESTERN C , plains c	NAW										10	

E. contracta A Hitchc , PRAIRIE C	NAW	1	2	3	4	5	6	7	8	9	
E gracilis (***E. acuminata*** var. ***acuminata)***											
E gracilis var minor (***E. acuminata*** var. ***minor***)											
E. polystachya Kunth, CARIBBEAN C	IPW		2								
E. pseudoacrotricha (Stapf *ex* Thell) J M Blake, VERNAL C	IPW		2				6				
E. punctata (L) Desv *ex* Hamilton, LOUISIANA C , everlasting-grass	NPW		2				6				
E. sericea (Scheele) Munro *ex* Vasey, TEXAS C , silky c	NPW		2		4	5	6	7	8		10
ERIONEURON Nash, Erioneuron, Woollygrass											
E. avenaceum (Kunth) Tateoka, LARGEFLOWERED E	NPW							7			10
E grandiflora (***E. avenaceum***)											
E. nealleyi (Vasey) Tateoka, NEALLEY"S E	NPW										10
E. pilosum (Buckl) Nash, HAIRY E , hairy tridens	NPW		2		4	5	6	7	8	9	
E pulchellum (***Dasyochloa pulchella***)											
EUCHLAENA (***ZEA***)											
E perennis (***Zea perennis***)	IPW		2								
EUSTACHYS Desv , Fingergrass											
E. caribea (Spreng) Herter, CHICKENFOOTGRASS	IPW			3							
E. neglecta (Nash) Nash, FOURSPIKE F	IPW			3							
E. petraea (Sw) Desv , STIFFLEAF F	NPW		2	3	4						
E. retusa (Lag) Kunth, F	NPW			3	4						
FESTUCA L , Fescue											
F. arizonica Vasey, ARIZONA F , canuela borreguera	NPC										10
F arundinacea (***Schedonorus arundinaceus***)											
F dertonensis (***Vulpia bromoides***)											
F. ligulata Swallen, GUADALUPE F	NPC										10
F megalura (***Vulpia myuros*** var ***hirsuta***)											
F myuros (***Vulpia myuros*** var ***myuros***)											
F obtusa (***F. subverticillata***)											
F octoflora (***Vulpia octoflora*** var ***octoflora)***											
F. paradoxa Desv , CLUSTER F	NPC	1		3							
F pratensis (***Schedonorus arundinaceus***)											
F. rubra L , RED F	NPC										10
F sciurea (***V. sciurea***)											
F. subverticillata (Pers) E Alexeev, NODDING B	NPC	1	2	3							

F. versuta Beal, TEXAS F	NPC						7		
GASTRIDIUM P Beauv									
G. phleoides (Nees & Meyer) C E Hubb, NITGRASS	IAC								10
G ventricosum (*G. phleoides*)									
GLYCERIA R Br, Mannagrass									
G arkansana (*G. septentrionalis* var. *arkansana*)									
G. declinata Breb, LOW M	IPC	1							
G. grandis S Wats, NOT VERIFIED									
G. notata Chevall, NOT VERIFIED									
G. septentrionalis A Hitchc, EASTERN M, floating m									
var *arkansana* (Fern) Steyerm & Kucera, ARKANSAS M	NPC	1							
var *septentrionalis*, EASTERN M, floating m	NPC	1	2	3					
G. striata (Lam) A Hitchc, FOWL M, nerved m	NPC			3	4		7		10
GYMNOPOGON P Beauv, Skeletongrass									
G. ambiguus (Michx) B S P, BEARDED S, broad-leaved beardgrass	NPW	1	2	3		5			
G. brevifolius Trin, SHORTLEAF S	NPW			3					
HACKELOCHLOA (*MNESITHEA*)									
H granularis (*Mnesithea granularis*)									
HAINARDIA Greuter									
H. cylindrica (Willd) W Greuter THINTAIL	IAC		2						
HEMARTHRIA R Br									
H. altissima (Poir) Stapf & C E Hubb, LIMPOGRASS	IPW	2			6				10
HESPEROSTIPA (Elias) Barkworth, Needlegrass									
H. comata (Trin & Rupr) M Barkworth, NEEDLE-AND-THREAD	NPW							8 9	10
H. neomexicana (Thurb) M Barkworth, NEW MEXICO FEATHERGRASS, New Mexico n	NPW						7	8 9	10
HETEROPOGON Pers, Tanglehead									
H. contortus (L) P Beauv *ex* Roem & Schult, TANGLEHEAD, retorcido moreno, barba negra	NPW		2		6	7			10

H. melanocarpus (Ell) Benth , SWEET TANGLEHEAD	IAW		2									CUL
HILARIA Kunth												
H. belangeri (Steud) Nash, COMMON CURLY-MESQUITE, creeping mesquite	NPW		2		4	5	6	7	8	9	10	
H. jamesii (Torr) Benth , GALLETA	NPW								8	9	10	
H. mutica (Buckl) Benth , TOBOSA, tobosagrass	NPW						6	7	8	9	10	
H. swallenii Cory, SWALLEN CURLY - MESQUITE	NPW										10	
HOLCUS L												
H. lanatus L , COMMON VELVETGRASS	IPC	1	2									CUL
HOPIA (***PANICUM)***												
H obtusa (***Panicum obtusum)***												
HORDEUM L , Barley												
H. jubatum L ,FOXTAIL B , squirreltail grass	NPC							7	8	9	10	
H leporium (***H. murinum*** subsp ***leporinum***)												
H. murinum L												
subsp ***glaucum*** (Steud) Tzvelev	IAC										10	
subsp ***leporinum***, MOUSE B	IAC							7	8	9	10	
H. pusillum Nutt , LITTLE B , mouse b	NAC	1	2	3	4	5	6	7	8	9	10	
H. vulgare L , BARLEY	IAC	1	2	3	4	5	6	7	8	9	10	CUL
HYDROCHLOA (***LUZIOLA***)												
H caroliniensis (***Luziola fluitans***)												
HYPARRHENIA Andersson *ex* E Fourm , Thatchingrass												
H. hirta (L) Stapf, THATCHINGRASS	IPW		2	3	4			7				CUL
H. rufa (L) Stapf JARAGUAGRASS	IAPW		2	3								CUL
IMPERATA Cirillo												
I. brevifolia Vasey, SATINTAIL, congograss	NPW							7			10	
I. cylindrica (L) Raeusch , CONGONGRASS	IPW	2	3								CUL	
KOELERIA Pers , Junegrass												
K cristata (***K. macrantha***)												
K gerardii (***Rostraria cristata***)												
K. macrantha (Ledeb) Schult , JUNEGRASS, prairie junegrass	NPC							7	8	9	10	
K phleoides (***Rostraria cristata***)												
K pyramidata (***K. macrantha***)												

LAMARCKIA Moench											
L. aurea (L) Moench, GOLDENTOP	IAC										
LEERSIA Sw , Cutgrass											
L. hexandra Sw , CLUBHEAD C	NPW		2				6				
L. lenticularis Michx , CATCHFLYGRASS	NPW	1	2								
L. monandra Sw , BUNCH C	NPW		2				6				
L. oryzoides (L) Sw , RICE C	NPW	1	2	3	4	5	6	7	8		10
L. virginica Willd , WHITEGRASS, Virginia c	NPW	1	2	3	4						
LEPTOCHLOA P Beauv , Sprangletop											
L. chloridiformis (Hack) Parodi, ARGENTINE S	NPW		2								
L. dubia (Kunth) Nees, GREEN S , Texas crowfoot	NPW		2		4	5	6	7	8	9	10
L fascicularis (***L. fusca*** subsp ***fascicularis***)											
L filiformis (***L.panicea*** subsp ***mucronata***)											
L. fusca (L) Kunth											
subsp ***fascicularis*** (Lam) N Snow, BEARDED S	NAW	1	2	3	4	5	6	7	8	9	10
subsp ***uninervia*** (J Presl) N Snow, MEXICAN S	NAW		2	3		5	6	7			
L. panicea (Retz) Ohwi subsp ***mucronata*** (Michx) Nowack, RED S , slendergrass	NAW	1	2	3	4	5	6	7	8	9	10
L. nealleyi Vasey, NEALLEY S	NAW		2				6				
L. panicoides (J Presl) A Hitchc , AMAZON S	NAW	1	2								
L. scabra Nees , ROUGH S	IAW		2								
L uninervia **(=*L. fusca*** subsp ***uninervia)***											
L. virgata (L) P Beauv , TROPIC S	NPW		2				6	7			
L. viscida (Scribn) Beal, STICKY S	NAW										10
LEPTOLOMA (***DIGITARIA***)											
L arenicola (***Digitaria arenicola***)											
L cognatum var arenicola (***Digitaria arenicola***)											
L cognatum (***Digitaria cognatum*** subsp. ***cognatum***)											
LEYMUS Hochst , Wildrye											
L. triticoides (Buckl) Pilger, CREEPING W , beardless w	NPC								8		10 CUL
LEPTURUS (***PARAPHOLIS)***											
L incurvus (***Parapholis incurvus***)											
LIMNODEA L H Dewey											

L. arkansana (Nutt.) L. H. Dewey, OZARKGRASS	NAC	1	2	3	4	5	6	7	8		
LOLIUM L., Ryegrass											
L. arundinaceum (=***Festua arundinacea***)											
L. italicum (=***L. perenne***)											
L. multiflorum (=***L. perenne***)											
L. perenne L., PERENNIAL R., English r., ryegrass	IPC	1	2	3	4	5	6	7	8	9	10 CUL
L. rigidum (=***L. perenne***)											
L. temulentum L.											
var. ***temulentum***, DARNEL R., poison darnel	IAC	1	2	3	4	5		7	8	9	CUL
LUZIOLA Juss.											
L. fluitans (Michx.) Terrell & Robinson, WATERGRASS	NPW	1									
L. peruviana Gmel., PERUVIAN WATERGRASS	IPW		2								
LYCURUS Kunth, Wolftail											
L. phleoides Kunth, WOLFTAIL, Texas timothy	NPW							7		9	10
L. setosus (Nutt.) C. Reeder, BRISTLY W.	NPW								8	9	10
MANISURIS (=***HEMARTHRIA*** & ***MNESITHEA***)											
M. altissima (=***Hemarthria altissima***)											
M. cylindrica (=***Mnesithea cylindrica***)											
M. rugosa (=***Mnesithea rugosa***)											
MELICA L., Melic											
M. bulbosa Geyer *ex* Porter & Coult., ONIONGRASS	NPC										10
M. montezumae Piper, MONTEZUMA M.	NPC										10
M. mutica Walt., TWO-FLOWERED M., narrow m	NPC	1	2	3							
M. nitens (Scribn.) Nutt. *ex* Piper, THREEFLOWER M., tall m	NPC					5		7	8	9	10
M. porteri Scribn., PORTER'S M.	NPC							7			10
MELINIS P. Beauv.											
M. repens (Willd.) Zizka, NATALGRASS	IPW						6				
MICROCHLOA R. Br.											
M. kunthii Desv., KUNTH'S SMALLGRASS	NPW										10

MICROSTEGIUM Nees											
M. vimineum (Trin.) A. Camus, NEPALESE BROWNTOP	IAW	1									
MISCANTHUS Anderss.											
M. sinensis Anderss., EULALIA, Silvergrass	IPW										CUL
MNESITHEA Kunth, Jointtail											
M. cylindrica (Michx.) Koning & Sosef, CAROLINA J.	NPW	1	2	3	4	5	6	7	8		
M. granularis (L.) Koning & Sosef, PITSCALEGRASS	IAW										
M. rugosa (Michx.) Koning & Sosef, WRINKLED J.	NPW	1	2								
MONANTHOCHLOË Engelm.											
M. littoralis Engelm., SHOREGRASS, dwarfstand saltgrass, keygrass	NPW		2								
MONERMA (*HAINARDIA*)											
M. cylindrica (***Hainardia cylindrica***)											
MOOROCHLOA (*BRACHIARIA*)											
M. eruciformis (***Brachiaria eruciformis***) Shaw et al. 2011											
MUHLENBERGIA Schreb., Muhly											
M. andina (Nutt.) A. Hitchc., FOXTAIL M.	NPW									10	
M. arenacea (Buckl.) A. Hitchc., EAR M., sand m.	NPW							7		9	10
M. arenicola Buckl., SAND M.	NPW							7	8	9	10
M. asperifolia (Trin.) Parodi, SCRATCHGRASS, alkali m., rough-leaved dropseed, rough-leaved m.	NPW							7	8	9	10
M. brevis C. O. Gooding, SHORT M.	NAW										10
M. bushii R. W. Pohl, NODDING M.	NPW				4						
M. capillaris (Lam.) Trin., HAIRYAWN M., long-awned hairgrass, slender m.	NPW	1	2	3							
M. crispiseta A. Hitchc., MEXICAN M.	IAW										10
M. cuspidata (Torr.) Rydb., PLAINS M.	NPW									9	
M. depauperata Scribn., SIXWEEKS M.	NAW										10
M. diversiglumis Trin.	IAW		2								
M. dubia E. Fourn., PINE M.	NPW										10
M. eludens C. Reeder, GRAVELBAR M.	NAW										10
M. emersleyi Vasey, BULLGRASS, bluegrass	NPW							7			10
M. expansa (Poir.) Trin., CUTOVER M.	NPW	1	2								
M. filiformis (Thurb. *ex* S. Wats.) Rydb., PULL-UP M.	IAW			3							

M. fragilis Swallen, DELICATE M.	NAW											10
M. frondosa (Poir) Fern , WIRESTEM M.	NPW				4							
M. glabrifloris Scribn , INLAND M	NPW				4							
M. glauca (Nees) J D Jacks , DESERT M.	NPW											10
M. x ***involuta*** Swallen, CANYON M	NPW			4	5		7					
M. lindheimeri A Hitchc , LINDHEIMER M	NPW				4	5	6	7				
M. metcalfei M E Jones, METCALF M.	NPW											10
M. mexicana (L) Trin , MEXICAN M.	NPW					5						
M. minutissima (Steud.) Swallen, LEAST M., sixweeks m	NAW											10
M. montana (Nutt.) A Hitchc , MOUNTAIN M.	NPW											10
M. monticola (***M. tenuifolia***)												
M. parviglumis Vasey, LONGAWN M , small glume m	NPW											10
M. pauciflora Buckl , NEW MEXICO M.	NPW											10
M. polycaulis Scribn , CLIFF M , many-stemmed m	NPW											10
M. porteri Scribn *ex* Beal, BUSH M	NPW							7			9	10
M. pungens Thurb *ex* A Gray, PUNGENT M., sandhill m	NPW										9	
M. racemosa (Michx) B S P , GREEN M., satingrass	NPW										9	10
M. repens (Presl) A Hitchc , CREEPING M., red m	NPW										9	10
M. reverchonii Vasey & Scribn , SEEP M , Reverchon's m	NPW				4	5		7	8			
M. rigens (Benth) A Hitchc , DEERGRASS	NPW							7				10
M. rigida (Kunth) Kunth, PURPLE M , stiff m	NPW											10
M. schreberi J F Gmel , NIMBLEWILL, satingrass, Schreber's m	NPW	1	2	3	4		6	7				
M. sericea (***M. capillaris***)												
M. setifolia Vasey, CURLYLEAF M , bristle-leaved m	NPW							7				
M. sobolifera (Muhl *ex* Willd.) Trin , ROCK M., rock dropseed	NPW	1			4			7				
M. spiciformis Trin , LONGAWN M	NPW							7	8			10
M. straminea A Hitchc , SCREWLEAF M	NPW											10
M. sylvatica (Torr) Torr *ex* A Gray, FOREST M.	NPW				4	5		7				
M. tenuifolia (Kunth) Trin , MESA M	NAPW	3				7					#	
M. texana Buckl , TEXAS M.	NAW										#	
M. thurberi (Scribn) Rydb , THURBER M	NPW											10
M. torreyi (Kunth) A Hitchc *ex* Bush, RING M., ringgrass	NPW							7	8	9		10
M. uniflora (Muhl) Fern , BOG M	IPW											10
M. utilis (Torr) A Hitchc , APAREJOGRASS	NPW							7				
M. villosa (***M. villiflora*** var. ***villosa***)												

M. villiflora A Hitchc var ***villosa*** (Swallen) Morden, HAIRY M	NPW							7		9	10	
M. wrightii Vasey *ex* J M Coult., SPIKE M	NPW									#		
MUNROA Torr												
M. squarrosa (Nutt.) Torr., FALSE BUFALOGRASS, Munro's grass	NAW							7	8	9	10	
NASSELLA Desv., Needlegrass												
N. leucotricha (Trin & Rupr.) W R Pohl, TEXAS WINTERGRASS, Texas n., speargrass	NPC	1	2	3	4	5	6	7	8	9	10	
N. tenuissima (Trin.) M Barkworth, FINESTEM N wiry speargrass, wiry n	NPW										10	
N. viridula (Trin.) M Barkworth, GREEN N	NPC							7				
NEERAGROSTIS (*ERAGROSTIS*)												
N reptans (***Eragrostis reptans***)												
OPLISMENUS P Beauv												
O. hirtellus (L.) P Beauv., BASKETGRASS	IPW	1	2	3	4		6					
ORYZA L												
O. sativa L., RICE	IAW	1	2	3			6					CUL
ORYZOPSIS Michx., Ricegrass												
O hymenoides (***Stipa hymenoides***)												
O. micrantha (Trin & Rupr.) Thurb., LITTLESEED R	NPC									9		
PANICUM L., Panicum												
P aciculare												
var aciculare (***Dichanthelium aciculare*** var ***aciculare***)												
var angustifolium (***Dichanthelium aciculare*** var ***angustifolia***)												
P acuminatum												
var acuminatum (***Dichanthelium acuminatum*** var ***acuminatum***)												
var densiflorum (***Dichanthelium acuminatum*** var. ***densiflorum***)												
var lindheimeri (***Dichanthelium acuminatum*** var. ***lindheimeri***)												
P agrostoides (***P. rigidulum***)												
P amarulum (***P. amarum***)												
P. amarum Ell., BITTER P	NPW		2									

P. anceps Michx., BEAKED P	NPW	1	2	3	4			7				
P. angustifolium (= ***Dichanthelium aciculare***)												
P. antidotale Retz., BLUE P	IPW		2	3	4		6	7	8	9		CUL
P. arizonicum (= ***Urochloa arizonica***)												
P. bergii Arechav	IPW		2	3	4							
P. brachyanthum Steud., PIMPLE P	NPW	1	2	3								
P. brizanthum (= ***Urochloa brizantha***)												
P. bulbosum Kunth, BULB P	NPW							7			10	
P. capillare L., COMMON WITCHGRASS	NAW	1	2	3	4	5		7	8	9	10	
P. capillarioides Vasey, SOUTHERN WITCHGRASS, slender panicgrass	NPW		2				6					
P. ciliatissimum (= ***Urochloa ciliatissina***)												
P. clandestinum (= ***Dichanthelium clandestinum***)												
P. coloratum L., KLEINGRASS	IPW			3	4	5		7				CUL
P. commutatum (= ***Dichanthelium commutatum***)												
P. condensum (= ***P. rigidulum***)												
P. depauperatum (= ***Dichanthelium depauperatum***)												
P. dichotomum (= ***Dichanthelium dichotomum*** var ***dichotomum***)												
P. dichotomiflorum Michx., FALL P., spreading witchgrass	NAW	1	2	3	4			7		9		
P. diffusum Sw., SPREADING P	NPW		2	3	4	5	6	7	8		10	
P. ensifolium (= ***Dichanthelium ensifolium***)												
P. fasciculatum (= ***Urochloa fasciculata***)												
P. filipes (= ***P. hallii*** var. ***filipes***)												
P. firmulum (= ***Setaria reverchonii*** subsp ***firmula***)												
P. flexile (Gatt.) Scribn. in Kearney, WIRY WITCHGRASS	NAW			3	4							
P. geminatum (= ***Paspalidium geminatum***)												
P. ghiesbreghtii E. Fourn., GHIESBREGHT P	NPW		2				6					
P. gymnocarpon Ell., SAVANNAH P	NPW	1	2	3								
P. hallii Vasey												
var ***filipes*** (Scribn.) Waller, FILLY P	NPW		2	3	4	5	6	7	8		10	
var ***hallii***, HALLS P	NPW		2	3	4	5	6	7	8	9	10	
P. havardii Vasey, HARVARD P	NPW							7		9	10	
P. helleri (= ***Dichanthelium oligosanthes*** var ***scribnerianum***)												
P. hemitomon Schult., MAIDENCANE, Simpson's grass	NPW	1	2	3								
P. hians Ell., GAPING P	NPW	1	2	3	4		6	7				
P. hillmanii Chase, HILLMAN P	NAW					5			8	9	10	
P. hirsutum Sw., HAIRY WITCHGRASS, giant witchgrass, hairy p	NPW		2				6					

P. hirticaule J Presl, ROUGHSTACK WITCHGRASS	NAW											10
P huachucae (= ***Dichanthelium acuminatum*** var ***acuminatum***)												
P lanuginosum (= ***Dichanthelium acuminatum*** var. ***acuminatum***)												
P laxiflorum (= ***Dichanthelium laxiflorum***)												
P lindheimeri (= ***Dichanthelium acuminatum*** var. ***lindheimeri***)												
P linearifolium (= ***Dichanthelium linearifolium***)												
P malacophyllum (= ***Dichanthelium malacophyllum***)												
P maximum (= ***Urochloa maxima***)	IPW		2				6					
P. miliaceum L., BROOMCORN MILLET, proso	IAW					5			8	9	CUL	
P muticum (= ***Urochloa mutica***)												
P notatum (= ***Dichanthelium notatum***)												
P. obtusum Kunth, VINE MESQUITE, grapevine-mesquite, wiregrass	NPW		2	3	4	5	6	7	8	9	10	
P oligosanthes var oligosanthes (= ***Dichanthelium oligosanthes*** var ***oligosanthes)***												
P oligosanthes var scribnerianum (= ***Dichanthelium oligosanthes*** var ***scribnerianum)***												
P paludivagum (= ***Paspalidium geminatum***)												
P pedicellatum (= ***Dichanthelium pedicellatum***)												
P perlongum (= ***Dichanthelium linearifolium***)												
P. philadelphium Bernh *ex* Trin., PHILADELPHIA WITCHGRASS, wood witchgrass	NAW	1		3	4	5						
P pilcomayense (***P. bergii***)												
P platyphyllum (= ***Urochloa platyphylla***)												
P. plenum A Hitchc & Chase, CANYON P	NPW							7			10	
P polyanthes (= ***Dichanthelium sphaerocarpon*** var ***isophyllum***)												
P purpurascens (= ***Urochloa mutica***)												
P ramisetum (= ***Setaria ramiseta***)												
P ramosum (= ***Urochloa ramosa***)												
P ravenelii (= ***Dichanthelium ravenelii***)												
P. repens L., TORPEDOGRASS	IPW		2									
P reptans (= ***Urochloa reptans***)												
P reverchonii (= ***Setaria reverchonii***)												
P. rigidulum Bosc *ex* Nees, REDTOP P	NPW	1	2	3	4			7				
P scoparium (= ***Dichanthelium scoparium***)												
P scribnerianum (= ***Dichanthelium oligosanthes*** var ***scribnerianum)***												
P sphaerocarpon (= ***Dichanthelium***												

sphaerocarpon											
var ***sphaerocarpon***)											
P. tenerum Beyr *ex* Trin	NPW	1	2								
P tennesseense (***Dichanthelium acuminatum*** var ***acuminatum)***											
P texanum (***Urochloa texana***)											
P. trichoides Sw	NAW		2								
P. verrucosum Muhl , WARTY P	NAW	1	2	3				7			
P villosissima (***Dichanthelium acuminatum*** var ***villosum***)											
P. virgatum L , SWITCHGRASS	NPW	1	2	3	4	5	6	7	8	9	10
P werneri (***Dichanthelium linearifolium***)											
P xalapense (***Dichanthelium laxiflorum***)											
PAPPOPHORUM Schreb , Pappusgrass											
P. bicolor E Fourn , PINK P , two-colored p	NPW		2				6	7	8		10
P. vaginatum Buckl , WHIPLASH P , mucronulate p	NPW		2				6	7			10
P wrightii (***Enneapogon desvauxii***)											
PARAPHOLIS C E Hubb											
P. incurva (L) C E Hubb , SICKLEGRASS	IAC		2								
PASCOPYRUM (***ELYMUS***)											
P smithii (***E. smithii***)											
PASPALIDIUM Stapf											
P. geminatum (Forssk) Stapf, EGYPTIAN PASPALIDIUM	IPW	1	2	3		5	6				
PASPALUM L , Paspalum											
P. acuminatum Raddi, BROOK P	NPW	1	2	3		5	6				
P. almum M A. Chase, COMBS P	NPW	1	2								
P. bifidum (Bertol) Nash, PITCHFORK P	NPW	1	2	3							
P. boscianum Flugge, BULL P	NPW	1	2								
P circulare (***P. laeve*** var. ***circulare***)											
P. conjugatum P J Bergius, SOUR P	NPW		2								
P. conspersum Schrad , SCATTERED P	IPW		2								
P. convexum Humb & Bonpl *ex* Flugge, MEXICAN P	NPW	1									
P. dilatatum Poir , DALLISGRASS, paspalum grass	IPW	1	2	3	4	5	6	7	8	9	10
P. dissectum (L) L , MUDBANK P	NPW	1	2	3							

P. distichum L., KNOTGRASS, jointgrass, Ft Thompsongrass	NPW	1		3	4	5	6	7	8	9	10
P. floridanum Michx, FLORIDA P, big Florida p, big p,	NPW	1	2	3	4	5		7			
P. fluitans (Ell.) Kunth, WATER P	NAW	1	2	3							
P. hartwegianum E. Fourn., HARTWEG P	NPW		2				6	7			
P. hydrophilum (= *P. modestum*)											
P. intermedium Munro *ex* Morong & Britt., INTERMEDIATE P	IPW										
P. laeve Michx., ROUND-SEED P, field p. smooth p	NPW	1	2	3							
P. laeve var. circulare (= *P. laeve*)											
P. laeve var. pilosum (=*P. laeve*)											
P. langei (E. Fourn.) Nash, RUSTYSEED P, Lange's p	NPW	1	2	3			6				
P. lentiferum (= *P. praecox*)											
P. lividum Trin. *ex* Schltal., LONGTOM, pull-and- be- damned	NPW	1	2				6				
P. longipilum (= *P. laeve* var. *pilosum*)											
P. malacophyllum Trin., RIBBED P	IPW			3							
P. minus E. Fourn., MAT P	NPW	1	2				6				
P. modestum Mez, WATER P	IPW		2								
P. monostachyum Vasey, GULFDUNE P, single-spike p	NPW		2				6				
P. notatum Flugge, BAHIAGRASS	IPW	1	2	3	4	5		7			
P. paspalodes (= *P. distichum*)											
P. plicatulum Michx., BROWNSEED P, plaited p	NPW	1	2	3	4		6	7			
P. praecox Walt., EARLY P	NPW	1	2	3							
P. pubiflorum Rupr. *ex* E. Fourn., HAIRYSEED P, smoothseed p., hairyflowered p	NPW	1	2	3	4	5	6	7	8		10
P. pubiflorum var. glabrum (= *P. pubiflorum*)											
P. repens (= *P. fluitans*)											
P. scrobiculatum L., INDIA P	IPW			3							
P. separatum Shinners	NPW			3							
P. setaceum Michx											
var. *ciliatifolium* (Michx.) Vasey, FRINGELEAF P	NPW	1	2	3							
var. *muhlenbergii* (Nash) D. Banks	NPW	1	2	3	4	5		7			
var. *setaceum*, THIN P	NPW	1						7			
var. *stramineum* (Nash) D. Banks	NPW	1	2	3	4	5	6	7	8	9	10
P. stramineum (= *P. setaceum* var. *stramineum*)											
P. texanum (= *P. plicatulum*)											
P. unispicatum (Scribn. & Merr.) Nash, ONESPIKE P	NPW		2				6				
P. urvillei Steud., VASEYGRASS, Urville's p	IPW	1	2	3	4	5		7			

*P. **vaginatum*** Sw , SEASHORE P , sand knotgrass	NPW		2								
*P. **virgatum*** L , TALQUEZAL	NPW					6					
*P. **wrightii*** A Hitchc , WRIGHT'S P	IPW		2								
PENNISETUM Rich , Fountaingrass											
*P. **alopecuroides*** (L) Sprenge , FOXTAIL F	IPW			3							CUL
*P. **ciliare*** (L) Link, BUFFELGRASS	IPW		2	3	4		6	7			10 CUL
*P. **flaccidum*** Griseb , HIMALAYAN F											CUL
*P. **glaucum*** (L) R Br , PEARL MILLET	IAW		2	3							CUL
*P. **macrostachys*** (Brongn) Trin , PURPLE F	IAW										CUL
*P. **nervosum*** (Nees) Trin , BENTSPIKE P	IPW		2				6				CUL
*P. **orientale*** Willd *ex* Rich , LAURISAGRASS	IPW		2	3							CUL
*P. **polystachion*** (L) Schult , MISSIONGRASS	IAPW										CUL
*P. **purpureum*** Schumach , NAPIERGRASS, elephantgrass	IPW		2	3							CUL
*P. **setaceum*** (Forssk) Chiov , F	IPW		2	3							CUL
*P. **setigerum*** (Vahl) Wipff, BIRDWOODGRASS	IPW						6	7			CUL
*P. **villosum*** R Br *ex* Fresen , FEATHERTOP	IPW			3				7			10 CUL
PHALARIS L , Canarygrass											
*P. **angusta*** Nees *ex* Trin , TIMOTHY C	NAC	1	2	3			6	7			10
*P. **aquatica*** L , HARDINGGRASS	IPC							7			10 CUL
*P. **arundinacea*** L , REED C	NPC							8			
*P. **brachystachys*** Link, SHORTSPIKE C	IAC						6				
*P. **canariensis*** L , C	IAC	1	2	3				7			CUL
*P. **caroliniana*** Walt , CAROLINA C , southern c	NAC	1	2	3	4	5	6	7	8	9	10
*P. **minor*** Retz , LITTLESEED C	IAC		2								
P stenoptera (= *P. **aquatica***)											
PHLEUM L											
*P. **pratense*** L , TIMOTHY	IPC	1		3							CUL
PHRAGMITES Adans											
*P. **australis*** (Cav) Trin *ex* Steud , COMMON REED	NPW	1	2	3	4	5	6	7	8	9	10

P communis (= ***P. australis***)

PHYLLOSTACHYS Sieb & Zucc

P. aurea A & C Riv , GOLDEN BAMBOO	IPC			3				7			CUL
P aurosulcata , NOT VERIFIED	IPC										CUL
P nigra, NOT VERIFIED	IPC										CUL

PIPTANTHERA (= ***ORYZOPSIS)***

P micranthum (= ***Oryzopsis micrantha***)

PIPTOCHAETIUM J Presl, Needlegrass

P. avenaceum (L) Parodi BLACKSEED N , black oatgrass, oats n	NPC	1	2	3							
P. fimbriatum (Kunth) A Hitchc , PINYON RICEGRASS	NPW										10
P. pringlei (Scribn) Parodi, PRINGLE N	NPW										10

PLEURAPHIS (= ***HILARIA***)

P jamesii (***Hilaria jamesii***)

P muticus (= ***Hilaria muticus***)

POA L , Bluegrass

P. annua L , ANNUAL B , low speargrass, dwarf meadowgrass	IAC	1	2	3	4	5	6	7	8	9	10
P. arachnifera Torr , TEXAS B	NPC	1	2	3	4	5		7	8		
P. arida Vasey, PLAINS B	NPC									9	
P. autumnalis Muhl *ex* Ell , AUTUMN B , flexuous speargrass	NPC	1	2	3							
P. bigelovii (Vasey) Scribn , BIGELOW B	NAC							7	8	9	10
P. bulbosa L , BULBOUS B	IPC					5					
P. chapmaniana Scribn , CHAPMANN B	NAC	1			4	5					
P. compressa L , CANADA B	IPC					5	6			9	10
P. fendleriana (Steud) Vasey, MUTTONGRASS, mutton b , fendler b	NPC										10
P. interior Rydb , INLAND B	NPC										10
P. occidentalis Vasey, NEW MEXICAN B	NPC										10
P. pratensis L , KENTUCKY B , junegrass	N/IPC	1				5				9	10
P. strictiramea A Hitchc , CHISOS B	NPC										10
P. sylvestris Gray, WOODLAND B , Sylvan speargrass	NPC	1									
P. trivialis L , ROUGH B	IPC						6				CUL

POLYPOGON Desf , Polypogon, Beardgrass												
P. elongatus Kunth, SOUTHERN B	NPC											10
P. interruptus H B K , DITCH B	IPC								7			
P. monspeliensis (L) Desf , RABBITFOOT P , annual beardgrass, rabbitfoot-grass	IAC	1	2	3	4	5	6	7	8	9	10	
P semiverticillatus (***P. viridis***)												
P. viridis (A Gouan) M Breistroffer, WATER BENTGRASS	IPC				4	5	6	7	8		10	
PSATHYROSTACHYS Nevski, Wildrye												
P. juncea (Fischer) Nevski, RUSSIAN W	IPC										10	
											CUL	
PSEUDOROEGRERIA (=**ELYMUS**)												
P arizonica **(=*Elymus arizoncus*)**												
P spicata **(=*Elymus spicatus*)**												
PUCCINELLIA Parl , Alkaligrass												
P. fasciculata (Torr) E Bickn , SALTMARSH A	IPC									8		
REDFIELDIA Vasey												
R. flexuosa (Thurb *ex* A Gray) Vasey, BLOWOUT GRASS	NPW										9	
RHYNCHELYTRUM (***MELINIS***)												
R repens (***Melinis repens***)												
ROSTRARIA Trin												
R. cristata (L) Tzvelev, ANNUAL JUNEGRASS	IAC		2	3								
ROTTBOELLIA L f												
R. cochinchinensis (Lour) W Clayton, ITCHGRASS	IAW		2									
SACCHARUM L , Plumegrass												
S. alopecuroides (L) Nutt , SILVER P	NPW	1	2									
S. baldwinii Spreng , NARROW P	NPW	1	2									
S. bengalense Retz , TALL P	IPW											
											CUL	
S. brevibarbe (Michx) Pers												
var ***brevibarbe***, SHORTBEARD P	NPW	1	2									
var ***contortum*** (Ell) R D Webster, BENTAWN P	NPW	1	2	3								

S. coarctatum (Fern) R D Webster, COMPRESSED P	NPW	1									
S. giganteum (Walt) Pers , SUGARCANE P	NPW	1	2	3	4						
S. officinarum L , SUGARCANE	IPW	1									CUL
S. ravennae (L) L , RAVENNAGRASS	IPW										CUL
SACCIOLEPIS Nash, Cupscale											
S. indica (L) M A Chase	IPW	1									
S. striata (L) Nash, AMERICAN CUPSCALE	NPW	1	2	3							
SCHEDONNARDUS Steud											
S. paniculatus (Nutt) Trel , TUMBLEGRASS	NPW	1	2	3	4	5	6	7	8	9	10
SCHEDONORUS P Beauv , Festuca											
S. arundinaceus (Schreb) Dumort	IPC	1		3	4	5		7	8	9	10 CUL
SCHISMUS P Beauv											
S. arabicus Nees, ARABIAN SCHISMUS	IAC										10
S. barbatus (Loefl *ex* L) Thell , COMMON MEDITERRANEANGRASS	IAC										10
SCHIZACHYRIUM Nees, Bluestem											
S. cirratum (Hack) Woot & Standl , TEXAS B , Texas beardgrass	NPW							7			10
S littorale (***S. scoparium*** var ***littorale***)											
S. neomexicanum (Nash) Nash, NEW MEXICO LITTLE B	NPW										10
S. sanguineum (Retz) Alst											
var **hirtiflorum** (Nees) S L Hatch, HAIRY CRIMSON B	NPW							10			
S. scoparium (Michx) Nash											
var ***divergens*** (Hack) Gould, EASTERN LITTLE B	NPW	1	2								
var ***littorale*** (Nash) Gould, SEACOAST B , seacoast beardgrass	NPW		2				6				
var. ***scoparium***, LITTLE B	NPW		2	3	4	5	6	7	8	9	10
S. spadiceum (Swallen) Wipff, HONEY B	NPW										10
S. tenerum Nees, SLENDER B	NPW	1									
SCLEROCHLOA P Beauv											
S. dura (L) P Beauv , HARDGRASS	IAC			3	4	5					

SCLEROPOA (***DESMAZERIA)***												
S rigida (***D. rigida***)												
SCLEROPOGON Phılıppı												
S. brevifolius Phılıppı, BURROGRASS	NPW								8	9	10	
SECALE L , Rye												
S. cereale L , RYE	IAC		2	3	4	5		7	8	9	10	CUL
SETARIA P Beauv , Brıstlegrass, Mıllet												
S. adhaerans (Forssk) Chıov , TROPICAL BARBED B	IAC		2	3								
S. corrugata (Ell) Schult , COASTAL B	NPW	1	2									
S firmula (***S. reverchonii*** subsp ***firmula***)												
S geniculata (***S. parviflora***)												
S glauca (***S. pumila***)												
S. griesbachii E Fourn , GRIESBACH B	NAW						6	7			10	
S. italica (L) P Beauv , FOXTAIL M., Italıan m	IAW				4			7	8			CUL
S. leucopila (Scrıbn & Merr) K Schum , PLAINS B	NPW		2			5	6	7	8	9	10	
S lutescens (***S. pumila***)												
S. macrostachya Kunth, PLAINS B	NPW		2				6	7				
S. magna Grıseb , GIANT B , gıant foxtaıl grass	NAW		2									
S. palmifolia (J Konıg) Stapf, PALMGRASS	IPW		2									CUL
S. parviflora (Poır) Kerguel , KNOTROOT B	NPW	1	2	3	4	5	6	7	8	9	10	
S. pumila (Poır) Roem & Schult , YELLOW B	IAW	1	2	3	4	5		7	8	9	10	
S. reverchonii (Vasey) Pılger												
subsp ***firmula*** (A Hıtchc & Chase) W E Fox, KNOTGRASS	NPW		2				6					
subsp ***ramiseta*** (Scrıbn) W E Fox, RIO GRAND BRISTLEGRASS	NPW		2			5	6	7	8			
subsp ***reverchonii***, REVERCHON B	NPW		2	3		5	6	7	8	9	10	
S. scheelei (Steud) A Hıtchc , SOUTHWESTERN B , Scheele's b	NPW		2		4		6	7	8	9	10	
S. texana Emery, TEXAS B	NPW						6	7			10	
S. verticillata (L) P Beauv , HOOKED B , bur b , foxtaıl grass	IAW			3	4	5	6	7			10	
S. villosissima (Scrıbn & Merr) K Schum , HAIRYLEAF B	NPW						6	7			10	
S. viridis (L) P Beauv , GREEN B , green foxtaıl grass	IAW				4	5	6	7	8	9	10	

SITANION **(=*ELYMUS*)**

S hystrix **(=*E. longifolius*)**

SORGHASTRUM Nash, Indiangrass

S avenaceum (= ***S. nutans***)

S. elliottii (C Mohr) Nash, SLENDER I, long-bristled i	NPW	1	2	3	4	5	6	7	8	9	10
S. nutans (L) Nash, YELLOW I, indianreed	NPW	1	2	3	4	5	6	7	8	9	10

SORGHUM Moench, Sorghum

S. bicolor (L) Moench, GRAIN S	IAW		2	3	4		6	7			CUL
S.* x *drummondii (Steud) Mills & M A Chase, SUDANSGRASS	IAW			3	4	5		7	8		10 CUL
S. halepense (L) Pers, JOHNSONGRASS	IPW	1	2	3	4	5	6	7	8	9	10

S sudanense (= ***S.* x *drummondii***)

S vulgare (= ***S. bicolor***)

SPARTINA Schreb, Cordgrass

S. alterniflora Loisel var ***glabra*** (Muhl) Fern, SMOOTH C, salt-marshgrass	NPW		2								
S. bakeri Merr, SAND C	NPW		2								
S. cynosuroides (L) Roth, BIG C, salt-reedgrass	NPW		2								

S juncea (= ***S. patens***)

S. densiflora Brongn, DENSEFLOWERED C	IPW							7			
S. patens (Ait) Muhl, MARSHHAY C, rush saltgrass	NPW		2								
S. pectinata Link, PRAIRIE C, tall marshgrass, sloughgrass	NPW		2		4	5		7	8	9	
S. spartinae (Trin) Merr *ex* A Hitchc, GULF C, coastal sacahuista, sacahuista	NPW			2	3			6	7		

SPHENOPHOLIS Scribn, Wedgescale

S. filiformis (Chapm) Scribn, LONGLEAF W	NPC	1									

S intermedia (= ***S. obtusa* var. *major***)

S. interrupta (Buckl) Scribn, PRAIRIE W	IAC	1	2	3	4	5		7	8	9	10
S. longiflora (Vasey *ex* L H Dewey) A Hitchc, BAYOU W	NAC	1	2	3							
S. nitida (Biehl) Scribn, SHINY W	NPW	1						7			
S. obtusata (Michx) Scribn, PRAIRIE W	NAC	1	2	3	4	5		7	8	9	10

SPOROBOLUS R Br, Dropseed

S. airoides (Torr) Torr, ALKALI SACATON	NPW		2				6	7	8	9	10

S airoides var wrightii (= ***S. wrightii***)

S asper (= ***S. compositus***)											
var asper (= ***S. compositus*** var ***compositus***)											
var clandestinus (=***S. compositus*** var ***clandestinus***)											
var drummondii (= ***S. compositus*** var ***drummondii***)											
var macer (= ***S. compositus*** var ***macer***)											
S. buckleyi Vasey, BUCKLEY D	NPW										10
S canoviren (= ***S. compositus*** var. ***clandestinus)***											
S clandestinus **(=*S. compositus* var. *clandestinus*)**											
S. coahuilensis Valdes-Reyna, COAHUILA D	IAW										10
S. compositus (Poir.) Merr.											
var ***clandestinus*** (Biehl.) Wipff & S.D. Jones	NPW	1	2	3	4	5	6	7	8		
var ***compositus***, TALL D., longleaved rushgrass, rough rushgrass	NPW	1	2	3	4	5	6	7	8		
var ***drummondii*** (Trin.) Kartesz & Gandhi, MEADOW D.	NPW	1	2	3	4	5	6	7	8		
var ***macer*** (Trin.) Kartesz & Gandhi, MISSISSIPPI D.	NPW	1		3	4						
S. contractus A. Hitchc., SPIKE D.	NPW								8	9	10
S. coromandelianus (Retz.) Kunth, WHORLED D.	NPW		2	3	4	5	6	7	8	9	10
S. cryptandrus (Torr.) A. Gray, SAND D., covered-spike d.	NPW		2	3	4	5	6	7	8	9	10
S. diandrus (Retz.) P. Beauv.	IPW										10
S. domingensis (Trin.) Kunth, CORAL D.	IPW		2								
S. flexuosus (Thurb. *ex* Vasey) Rydb., MESA D.	NPW							7		9	10
S. giganteus Nash, GIANT D.	NPW							7		9	10
S. heterolepis (Not in TX see Brown 1993)											
S. indicus (L.) R. Br., SMUTGRASS	NPW	1	2	3	4			7			
S. jacquemontii Kunth, RATSTAIL	IPW										
S. junceus (P. Beauv.) Kunth, PINEYWOODS D., purple d.	NPW	1	2								
S. macer (***S. compositus*** var. ***macer***)											
S. nealleyi Vasey, GYPGRASS, Nealley d.	NPW							7			10
S. neglectus Nash, PUFFSHEATH D.	NAW							7			
S. ozarkanus (= ***S. vaginiflorus***)											
S. patens (= ***S. coromandelianus***)											
S. poiretii (= ***S. indicus***)											
S. pulvinatus (= ***S. coromandelianus*)**											
S. purpurascens (Sw.) Hamilt., PURPLE D.	NPW		2				6	7			
S. pyramidatus (= ***S. coromandelianus***)											
S. silveanus Swallen, SILVEUS D.	NPW	1	2	3		5					

S. texanus Vasey, TEXAS D	NPW								8	9	10	
S. tharpii A Hitchc , PADRE ISLAND D	NPW		2			6						
S. vaginiflorus (Torr *ex* A Gray) Torr *ex* A Wood												
var ***ozarkanus*** (Fern) Shinners, OZARK D	NAW				4	5		7				
var ***vaginiflorus***, POVERTY D , southern povertygrass	NAW	1		3	4	5	6	7	8			
S. virginicus (L) Kunth, SEASHORE D , seashore rushgrass	NPW		2									
S. wrightii Munro *ex* Scribn , BIG SACATON, Wright's sacaton	NPW						6	7			10	

STEINCHISMA (***PANICUM)***

S hians (***Panicum hians)***

STENOTAPHRUM Trin

S. secundatum (Walt) O Ktze , ST AUGUSTINEGRASS	IPW	1	2	3	4		6	7				CUL

STIPA L , Needlegrass

S. arida M E Jones, MORMON N , desert n	NPW										10	
S avenacea (***Piptochaetium avenaceum***)												
S. clandestina Hack , SHARPLEAF N , mexican n	IPW							7				
S columbiana (***S. perplexa***)												
S comata (***Hesperostipa comata***)												
S. curvifolia Swallen, GUADALUPE N	NPC										10	
S. eminens Cav , SOUTHWESTERN N , tall n	NPC										10	
S. hymenoides Roem & Schult , INDIAN RICEGRASS	NPC									9	10	
S leucotricha (***Nassella leucotricha***)												
S. lobata Swallen, LITTLEAWN N , lobed n	NPC									9	10	
S nelsonii (***S. perplexa***)												
S neomexicana (***Hesperostipa neomexicana***)												
S. perplexa (P Hoge & M Barkworth) Wipff & Jones, COLUMBIA N , alpine n	NPC							7			10	
S pringlei (***Piptochaetium pringlei***)												
S. robusta (Vasey) Scribn , SLEEPYGRASS	NPC									9	10	
S tenuissima (***Nassella tenuissima***)												
S. scribneri Vasey, SCRIBNER`S N	NPC										10	

THEMEDA Forrsk

T. triandra Forrsk., RED OATGRASS	IPW							7				CUL

THINOPYRUM (= ***ELYMUS)***											
T hispidum (= ***Elymus hispidus***)											
T ponticum (= ***Elymus ponticum***)											
TRACHYPOGON Nees											
T. secundus (J Presl) Scribn , CRINKLEAWN	NPW		2			6				10	
T montufari of Hitchcock's Manual Of U S Grasses, ed I (= T secundus)											
TRAGUS Haller, Burgrass											
T. berteronianus Schult , SPIKE B , pricklegrass, goatgrass	IAW		2			6	7			10	
TRICHACNE (= ***DIGITARIA***)											
T californica (= ***Digitaria californica***)											
T hitchcockii (= ***Digitaria hitchcockii***)											
T insularis (= ***Digitaria insularis***)											
T patens (= ***Digitaria patens***)											
TRICHLORIS E Fourn *ex* Benth , Rhodesgrass											
T. crinata (Lag) Parodi, FALSE R., multiflowered chloris	NPW						7			10	
T. pluriflora E Fourn , MULTIFLOWERED FALSE R., four-flowered chloris	NPW		2			6					
TRICHONEURA Anders											
T. elegans Swallen, SILVEUSGRASS, hairy-nerve grass	NAW		2			6					
TRIDENS Roem & Schult., Tridens											
T. albescens (Vasey) Woot & Standl , WHITE T	NPW		2	3	4	5	6	7	8	9	10
T. ambiguus (Ell) Schult , PINEBARREN T	NPW	1	2								
T avenaceus (= ***Erioneuron avenaceum*** var ***avenaceum***)											
T. buckleyanus (L H Dewey) Nash, BUCKLEY T	NPW						7				
T. congestus (L H Dewey) Nash, PINK T	NPW		2		4						
T. eragrostoides (Vasey & Scribn) Nash, OVEGRASS T	NPW		2			6	7			10	
T. flavus (L) A Hitchc											
var ***chapmanii*** (Small) Shinners, CHAPMAN T	NPW	1									
var ***flavus***, PURPLETOP, redtop	NPW	1	2	3	4	5		7	8	9	
T grandiflora (= ***Erioneuron avenaceum*** var ***grandiflorum***)											

T. muticus (Torr) Nash												
var ***elongatus*** (Buckl) Shinners, ROUGH T	NPW			3	4	5		7	8	9		
var ***muticus***, SLIM T	NPW		2	3	4	5	6	7	8	9	10	
T nealleyi (***Erioneuron avenaceum*** var ***nealleyi***)												
T pilosus (***Erioneuron pilosum***)												
T pulchellum (***Dasyochloa pulchella***)												
T. strictus (Nutt) Nash, LONGSPIKE T	NPW	1	2	3	4	5		7				
T. texanus (S Wats) Nash, TEXAS T	NPW		2				6	7				
TRIODIA of Hitchcock's Manual of U S Grasses, ed I (***TRIDENS***)												
TRIPLASIS P Beauv												
T. purpurea (Walt) Chapm , PURPLE SANDGRASS	NAW	1	2	3	4	5	6	7	8	9	10	
TRIPOGON Roem & Schult , Tripogon												
T. spicatus (Nees) Ekman, AMERICAN T	NPW							7				
TRIPSACUM L												
T. dactyloides (L) L , EASTERN GAMAGRASS	NPW	1	2	3	4	5	6	7	8	9	10	
TRIRAPHIS R Br												
T. mollis R Br , PURPLE PLUMEGRASS	IPC					6						
TRISETUM (***SPHENOPHOLIS*** in Texas)												
T interruptum (***Sphenopholis interrupta***)												
TRITICUM L												
T. aestivum L , WHEAT	IAC	1	2	3	4	5	6	7	8	9	10	
T. cylindricum (Host) Ces, Pass & Gib , JOINTED GOATGRASS	IAC	1		3	4	5		7	8	9	10	CUL
UNIOLA L												
U latifolia (***Chasmanthium latifolium***)												
U laxum (***Chasmanthium laxum***)												
U. paniculata L , SEA-OATS, beachgrass	NPW		2									
U sessiliflora (***Chasmanthium laxum***)												
UROCHLOA P Beauv , Signalgrass												
U. arizonica (Scribn & Merr) D Morrone & F Zuloaga, ARIZONA S	NAW										10	

*U. **brizantha*** (Hochst *ex* A Rich) R D Webster, PALISADE SIGNALGRASS	IPW						6				
*U. **ciliatissima*** (Buckl) R D Webster, FRINGED S	NPW	1	2	3	4	5	6	7	8	9	10
*U. **fusca*** (O Swartz) B Hansen & Wunderlin, BROWNTOP S , fieldgrass, browntop	NAW		2	3	4	5	6	7	8	9	10
*U. **maxima*** (Jacq) R D Webster, GIUNEAGRASS	IPW		2				6				
*U. **mosambicensis*** (Hack) Dandy, MOSAMBIC S	IPW		2								
*U. **mutica*** (Forssk) T Q Nguyen, PARAGRASS	IPW		2				6				
*U. **panicoides*** P Beauv , LIVERSEED GRASS	IAW		2				6				
*U. **plantaginea*** (Link) R D Webster PLANTAIN	IAW										
*U. **platyphylla*** (Munro *ex* C Wright) R D Webster, BROADLEAF S	NAW	1	2	3	4		6	7			
*U. **subquadripara*** (Trin) A Hitchc , TROPICAL S	IACW						6				
*U. **ramosa*** (L) T Q Nguyen, BROWNTOP MILLETT	IAW		2	3	4	5					
*U. **reptans*** (L) Stapf, SPRAWLING S	IAW	1	2	3	4		6				
*U. **texana*** (Buckl) R D Webster, TEXAS S , Texas millet, Colorado grass	NAW	1	2	3	4	5	6	7	8	9	10
VASEYOCHLOA A Hitchc											
*V. **multinervosa*** (Vasey) A Hitchc , TEXASGRASS	NPW		2				6				
VETIVERIA (= ***CHRYSOPOGON***)											
V zizanioides (= ***Chrysopogon zizanioides***)											
VULPIA C Gmel , Sixweeksgrass											
*V. **bromoides*** (L) S F Gray, BROME S	IAC	1		3							
*V. **myuros*** (L) K C Gmel , RATTAIL S	IAC	1		3	4			7			
*V. **octoflora*** (Walt) Rydb , SIXWEEKSGRASS											
var ***glauca*** (Nutt) Fern	NAC	1		3	4	5		7	8		
var ***hirtella*** (Piper) Henr , HAIR S	NAC	1	2	3	4	5		7	8	9	10
var ***octoflora,*** COMMON S	NAC	1	2	3	4		7				
*V. **sciurea*** (Nutt) Henr , SQUIRREL S	NAC	1		3	4	5		7			
WILLKOMMIA Hack											
*W. **texana*** A Hitchc											
var ***texana***, TEXAS WILLKOMMIA	NPC		2	3							

ZEA L , Corn

Z. mays L , CORN	IAW	1	2	3	4	5	6	7	8	9	10 CUL
Z. perennis (A Hitchc) Reeves & Mangeld , TEOSINTE	IPW		2								CUL

ZIZANIA L , Wildrice

Z. texana A Hitchc , TEXAS W	NPW							7			

ZIZANIOPSIS Doell & Aschers

Z. miliacea (Michx) Doell & Aschers , MARSHMILLET, water millet, giant cutgrass, southern wildrice	NPW	1	2	3	4		6	7			

ZOYSIA Willd , Zoysiagrass

Z. japonica Steud , JAPANESE LAWNGRASS, z , Korean lawngrass	IPW										CUL
Z. matrella (L) Merr , MANILAGRASS	IPW										CUL
Z. pacifica (Goudswaard) M Hotta & Kuroi, KOREAN VELVETGRASS, mascarenegra	IPW										CUL

ZULOAGAEA (***Panicum*** in part)

Z bulbosa (***Panicum bulbosum***)

GRASSES OF TEXAS

GENERIC KEY TO GROUPS OR SELECTED GENERA

1	Culms woody (bamboo), perennial, flowering irregularly (not every year)	**2**
1	Culms herbaceous, annual (somewhat woody in ***Arundo***), flowering yearly or more frequently	**3**
2(1)	Primary culms internodes cylindrical, primary culm branches 1, pseudopetioles usually less than 2 mm long	***Arundinaria***
2	Primary culms internodes strongly flattened on 1 side (D-shaped), primary culm branches typically 2, pseudopetiole usually 2 3 mm long	***Phyllostachys***
3(1)	Leaf blades less than 1 cm long, leaves in fascicles, spikelets unisexual, inconspicuous in axils of fascicled leaves	***Monanthochloë***
3	Leaf blades more than 1 cm long, leaves not in fascicles, spikelets perfect or unisexual, usually conspicuous	**4**
4(3)	Second glumes with 5 rows of hooked spines on abaxial surface	***Tragus***
4	Second glumes without hooked spines on abaxial surface	**5**
5(4)	Spikelets with unisexual florets only; staminate and pistillate spikelets conspicuously different	**Group A**
5	Spikelets at least some with one or more perfect florets, if unisexual, then staminate and pistillate spikelets not conspicuously different	**6**
6(5)	Florets 1 per spikelet	**7**
6	Florets 2 or more per spikelet on at least some spikelets	**9**
7(6)	Inflorescence a spike or spicate raceme or raceme (***Aristida oligantha***)	**Group B**
7	Inflorescence a panicle, some panicles spicate (depauperate specimens may be reduced to a raceme, e g some ***Bromus*** and ***Vulpia***)	**8**
8(7)	Panicles open, contracted, or with racemose branches, but without spicate primary unilateral branches	**Group C**
8	Panicles with spicate primary unilateral branches	**Group D**
9(6)	Reduced florets below perfect florets (both above and below in ***Uniola***, C ***Chasmanthuim***, ***Phragmites***, and ***tenium***)	**10**
9	Reduced florets above perfect floret or all florets perfect	**17**
10(9)	Reduced florets both above and below fertile florets	**11**
10	Reduced florets below fertile floret, or both florets reduced staminate	**14**
11(10)	Second glumes dorsally awned	***Ctenium***
11	Second glumes awnless or rarely mucronate from apex	**12**
12(11)	Plants 1 4 m tall, inflorescences plumose	***Phragmites***
12	Plants about 1 2 5 m tall, inflorescences not plumose	**13**
13(12)	Disarticulation above glumes, plants of inland or woodland sites	***Chasmanthium***
13	Disarticulation below glumes, plants of coastal dunes	***Uniola***

14(10) Glumes both absent, spikelets appear to have 1 floret (also see ***Paspalum malacophyllum***) **15**
14 Glumes at least one present, spikelets have 2 3 florets **16**

15(14) Plants perennial, native, upper florets less than 6 mm long ..... ***Leersia***
15 Plants annual, introduced (cultivated), upper florets 7 12 mm long ..... ***Oryza***

16(14) Spikelets paired (except at rame or inflorescence or spicate raceme apex where spikelets are in 3's), one sessile or subsessile and perfect, one pedicellate and sterile (***Saccharum*** both spikelets perfect), upper floret usually membranous or leaf-like, first glume nearly as long as spikelet (Andropogoneae tribe) ..... **Group E**
16 Spikelets not paired or paired, when paired spikelets both perfect, upper floret dissimilar from lower floret or florets, first glume usually reduced or absent (except in ***Phalaris*** and some ***Panicum*** species) (Paniceae tribe ***Ehrharta***, *and* ***Phalaris***) ..... **Group F**

17(9) Inflorescence a spike or spicate raceme or raceme ..... **Group G**
17 Inflorescence a panicle (depauperate specimens may be reduced to a raceme) **18**

18(17) Panicles of spicate primary unilateral branches ..... **Group H**
18 Panicles of open, contracted, or rames but without spicate primary unilateral branches ..... **Group I**

Group A
(unisexual spikelets only, staminate and pistillate spikelets conspicuously different)

1 Plants dioecious **2**
1 Plants monoecious **7**

2(1) Plants ascending to erect **3**
2 Plants mat-forming, not ascending or erect **6**

3(2) Plant height 1 3 m tall, rhizomes absent ..... ***Cortaderia***
3 Plant height 35 60 cm tall, rhizomes present or absent **4**

4(3) Lemmas 5 veined ..... ***Poa***
4 Lemmas strongly 3 veined **5**

5(4) Ligules a ciliate membrane 0 5 1 4 mm long, inflorescences a panicle, lemmas awnless ..... ***Allolepis***
5 Ligules a minute fringe of hairs, inflorescences a spicate raceme or narrow panicle, Lemmas awnless (staminate spikelet) or with twisted awn (pistillate spikelet) ..... ***Scleropogon***

6(2) Pistillate and staminate inflorescences similar in appearance, lemmas 3 veined ..... ***Eragrostis***
6 Pistillate inflorescences in bur like clusters and staminate spikelets in clusters on spicate primary unilateral branches, lemmas 3 veined ..... ***Buchloë***

7(1) Staminate and pistillate spikelets borne on separate inflorescences **8**
7 Staminate and pistillate spikelets borne on the same inflorescence **9**

8(7) Glumes absent, stamens 6 ..... ***Luziola***
8 Glumes present, stamens 3 ..... ***Zea***

9(7)	Pistillate spikelets below staminate spikelets on the inflorescence branch, glumes chartaceus	**10**
9	Pistillate spikelets above staminate spikelets on the inflorescence branch, glume texture leaf like	**11**
10(9)	Pistillate spikelets occurring singly in a hard bead-like structures (white to pale blue) (cultivated)	*Coix*
10	Pistillate spikelets occur in cobs and no singly	***Tripsacum***
11(9)	Staminate spikelets on lower panicle branches, pistillate spikelets on stiffly erect upper branches	*Zizania*
11	Staminate spikelets on base of branch, pistillate spikelets at apex of same branch	***Zizaniopsis***

Group B
(1 floret/spikelet; spike or spicate raceme)

1	Lemmas 3 awned, spikelets more than 15 mm long	***Aristida***
1	Lemmas awnless or with 1 awn, spikelets less than 15 mm long	**2**
2(1)	Spikelets in capitate clusters, usually within the leafy part of plant, spikelets unisexual	***Buchloë***
2	Spikelets elevated above leaves in elongated inflorescences not in capitate clusters, spikelets with at least 1 perfect floret	**3**
3(2)	Inflorescences with spikelets unilateral (on one side) on rachis	***Microchloa***
3	Inflorescences with spikelets bilateral on rachis	**4**
4(3)	Spikelets solitary, 1 per inflorescence node	**5**
4	Spikelets 3 per inflorescence node	**7**
5(4)	Plants rhizomatous, perennial, inflorescence a raceme	***Zoysia***
5	Plants caespitose, annual, inflorescence a spike	**6**
6(5)	First glumes present	***Parapholis***
6	First glumes absent	***Hainardia***
7(4)	Glumes reduced to awns, inflorescence a spicate raceme (except ***Hordeum vulgare*** a spike)	***Hordeum***
7	Glumes not reduced to awns but rather obvious bracts, inflorescence a spike	***Hilaria***

Group C
(1 floret/spikelet;
panicles without spicate primary unilateral branches)

1	Panicle spike-like, lemmas 3-veined	*Hilaria*
1	Panicles open or contracted but not appearing as a spike, lemmas 3- or 5-veined	**2**
2(1)	Spikelets dimorphic (fertile spikelets mixed with and usually concealed by sterile spikelets, lemma 5-veined, veins obscure	*Cynosurus*
2	Spikelets of similar morphology, lemmas 3 or 5 veined, veins distinct or obscure	**3**
3(2)	Lemmas 3 veined	**4**
3	Lemmas not conspicuously 3 veined, either 1 or 5 or more veined or veins inconspicuous	**10**

4(3)	Lemma awn branched to 3 awns, sometimes the lateral awns greatly reduced (e g 1 mm long)	***Aristida***
4	Lemma awn unbranched or lemma awnless	**5**
5(4)	Glumes both as long or longer than lemma (excluding awns)	**6**
5	Glumes, at least the first, shorter than lemma	**7**
6(5)	Lemmas awnless or awned from back, base, or cleft apex, glumes exceeding length of lemma	***Agrostis***
6	Lemmas awnless or awned from entire apex, glumes nearly equal to lemma length	***Muhlenbergia***
7(5)	Spikelet disarticulation below the glumes, rachilla extending above floret as a minute bristle	***Cinna***
7	Spikelet disarticulation above the glumes, rachilla not extended above the perfect floret	**8**
8(7)	First glumes with 2 awns, glume veins 2 (even-numbered)	***Lycurus***
8	First glumes awnless or with 1 awn, glume veins odd-numbered	**9**
9(8)	Veins of lemmas densely pubescent, lemmas awnless	***Blepharoneuron***
9	Veins of lemmas glabrous to scabrous, lemmas awned or awnless	***Muhlenbergia***
10(3)	Lemmas indurate and completely enclosing palea for most of its length	**11**
10	Lemmas coriaceous, membranous or leaf-like, but not obviously indurate, usually not enclosing the palea for entire length	**15**
11(10)	Paleas longer than lemmas, grooved longitudinally, lemma margins involute	***Piptochaetium***
11	Paleas shorter than or equal to lemmas, flat, lemma margins flat	**12**
12(11)	Lemma margins greatly overlapping, paleas less than one-third lemma length	***Nassella***
12	Lemma margins not or slightly overlapping, paleas one-third or more lemma length	**13**
13(12)	Palea apex flat, usually pubescent, shorter or equal to lemma length, veins usually terminate below palea apex	***Stipa***
13	Palea apex keeled, usually glabrous, as long as lemma, veins terminating at palea apex	**14**
14(13)	Lemmas more than 7 5 mm long, callus sharp	***Hesperostipa***
14	Lemmas less than 7 5 mm long, callus blunt	***Oryzopsis***
15(10)	Glumes absent	***Leersia***
15	Glumes present, at least the second	**16**
16(15)	Glumes, at least the first, shorter than floret	**17**
16	Glumes both longer than or equal to floret	**21**
17(16)	Lemmas 5 veined, plants of wet habitats or mesic habitats	**18**
17	Lemmas 1 veined, plants of mesic or xeric habitats	**20**
18(17)	Rachilla terminating at upper floret, not becoming a bristle, plants of wet area	***Oryza***
18	Rachilla extending above perfect(usually upper) floret into a bristle, plants of mesic areas	**19**

19(18)	First glumes 0 1 – 1 1 mm long, plants perennial, lemmas acute	***Brachyelytrum***
19	First glumes 1 4 – 2 6 mm long, plant annual, lemmas bidentate	***Apera***
20(17)	Lemmas with a tuft of hair at base	***Calamovilfa***
20	Lemmas without a tuft of hair at base	***Sporobolus***
21(16)	Glumes and lemmas awnless	**22**
21	Glumes or lemmas awned	**24**
22(21)	Lemmas 1 -veined, ligules a dense ring of hairs or ciliate membrane	***Sporobolus***
22	Lemmas 5 -veined or veins inconspicuous, ligules membranous	**23**
23(22)	Panicle branches in verticels of dense whorls, panicles contracted	***Polypogon***
23	Panicle branches in verticels or not in verticels but not dense, panicles open or contracted	***Agrostis***
24(21)	Glumes awned	**25**
24	Glumes awnless (awn-tipped in ***Gastridium***)	**26**
25(24)	Disarticulation above the glumes, glumes generally 3 -veined	***Phleum***
25	Disarticulation below the glumes, glumes 1 -veined	***Polypogon***
26(24)	Disarticulation of spikelet above glumes	**27**
26	Disarticulation of spikelet below glumes	**28**
27(26)	Second glumes 4 – 5 times longer than lemma	***Gastridium***
27	Second glumes shorter to longer than lemma but not more than twice as long	***Agrostis***
28(26)	Lemmas awned from below middle, inflorescence a tightly contracted cylindrical panicle	***Alopecurus***
28	Lemmas awned from near apex, inflorescence contracted but not tightly cylindrical	***Limnodea***

Group D
(1 floret/spikelet;
panicle with spicate primary unilateral branches)

1	Panicle branches digitate, sub-digitate or rarely verticillate	***Cynodon***
1	Panicle branches generally alternate but definitely not digitate	**2**
2(1)	Spikelets borne on central axis of inflorescence as well as the branches	***Schedonnardus***
2	Spikelets not borne on central axis of inflorescence, occurring only on the branches	**3**
3(2)	Lemmas 5 -veined, paleas 3 -veined	***Leersia***
3	Lemmas conspicuously 1 – 3 -veined, paleas 2 -veined	**4**
4(3)	Plants 50 cm or more in height, larger spikelets 6 – 25 mm long	***Spartina***
4	Plants 49 cm or less tall, larger spikelets 4 – 5 mm long	***Willkommia***

Group E
ANDROPOGONEAE TRIBE
(2 florets/spikelet; spikelets paired, some pedicels without spikelets; reduced floret below perfect floret)

1 Inflorescence a spicate raceme, several to many per culm **2**
1 Inflorescence a panicle of rames (rarely a panicle with a single branch) **11**

2(1) Upper lemmas awned **3**
2 Upper lemmas awnless **6**

3(2) Lemma awn less than 3 cm long ***Schizachyrium***
3 Lemma awn more than 3 5 cm long **4**

4(3) Inflorescences more than 9 cm long (excluding awns) ***Trachypogon***
4 Inflorescences less than 8 cm long (excluding awns) **5**

5(4) Spicate racemes composed of many spikelet pairs, inflorescences elongated not fan Shaped ***Heteropogon***
5 Spicate racemes composed of a single spikelet (rarely more) and 2 pedicellate spikelets, inflorescences appear fan shaped ***Themeda***

6(2) Inflorescences pubescent ***Elionurus***
6 Inflorescences glabrous to scabrous **7**

7(6) Basal leaf sheaths with stiff, sharp, papilla-based hairs to 3 mm long that irritate the skin, plants annual ***Rottboellia***
7 Basal leaf sheaths glabrous or with a tuft of pilose hair at apex, plants perennial or annual **8**

8(7) Sessile spikelets not sunken into thickened rachis, rachis slender **9**
8 Sessile spikelets sunken into thickened rachis **10**

9(8) Plants annual, culms much branched ***Microstegium***
9 Plants perennial, culms not branching above base ***Eremochloa***

10(8) First glume of sessile spikelets smooth on back, inflorescence axis flattened ***Hemarthria***
10 First glume of sessile spikelets with pits or ridges, inflorescence axis cylindrical or angled but not flattened ***Mnesithia***

11(1) Rame reduces to a triad of spikelets, lemma awn 10 cm or more long ***Chrysopogon***
11 Rame not a triad of spikelets, lemma awn less than 5 cm long or awnless **12**

12(11) Leaf blades with cordate clasping base, plants annual ***Arthraxon***
12 Leaf blades without cordate clasping base, plants perennial or annual **13**

13(12) Spikelets, both sessile and pedicellate fertile **14**
13 Spikelets not both fertile, sessile spikelet fertile and pedicellate sterile or pedicellate spikelet absent **17**

14(13) Panicles subdigitate, central axis short, branches seldom rebranch, plants less than 0 5 m tall ***Microstegium***
14 Panicles with elongated central axis, branches may rebranch several times, plants more than 1 m tall **15**

15(14) Spikelets falling in pairs (sessile and pedicellate with inflorescence branch) ***Saccharum***
15 Spikelets falling separate from the inflorescence branch **16**

16(15) Inflorescences greater than 7 cm long, sheath margins connate, spikelets mostly awned ***Miscanthus***
16 Inflorescence less than 6 9 cm long, sheath margins open, spikelets awnless ***Imperata***

17(15) Panicles of 2 to 7 paired or digitate or subdigitate rames, a spathe subtending inflorescence bases can be present or absent, pedicels of upper spikelets without central groove or membranous area **18**
17 Panicles of more than 7 rames (occasionally reduced to 3 branches in ***Bothriochloa ischaemum***), spathe not subtending inflorescences, pedicels of upper spikelet with or without a central or membranous area **20**

18 (17) Sessile spikelet at base of rames staminate and awnless ***Hyparrhenia***
18 Sessile spikelets at base of rames bisexual and awned **19**

19(17) Pedicellate spikelets about as large as sessile spikelets, apex broadly rounded, species introduced ***Dichanthium***
19 Pedicellate spikelets shorter and narrower than sessile spikelets **or** apex narrow and tapering **or** absent, species native ***Andropogon***

20(17) Glume margins setose, the hairs almost appear like spines ***Chrysopogon***
20 Glume margins not setose, any hairs not appearing like spines **21**

21(20) Pedicels and usually upper branch internodes on the upper part of inflorescence with a central groove or membranous area ***Bothriochloa***
21 Pedicels and upper branch internodes on the upper part of inflorescence without a central groove or membranous area **22**

22(21) Pedicellate spikelets absent, only hairy pedicel remaining ***Sorghastrum***
22 Pedicellate spikelets present ***Sorghum***

Group F
ANTHOXANTHUM, *EHRHARTA*, *PHALARIS* and PANICEAE TRIBE
[2 or 3 florets/spikelet; reduced floret or florets below perfect floret; panicle inflorescences
(some spicate racames or racemes)]

1 Ear-like appendages at the margins of second lemma, disarticulation above the gulmes ***Ehrharta***
1 Ear-like appendages absent from the base of the second lemma, disarticulation above or below the glumes **2**

2(1) Glumes equal, 1 mm or more longer than fertile floret, 2 (occasionally 1) scale-like rudimentary florets below fertile floret, disarticulation above glumes, upper floret coriaceous ***Phalaris***
2 Glumes unequal (rarely equal, e g ***Panicum obtusum***) or only second glume present (in some species of ***Axonopus, Digitaria*** and ***Paspalum***), if equal then reduced floret as long as spikelet, disarticulation below or above the glumes, upper floret usually firm to indurate (except in ***Pennisetum*** and ***Cenchrus***) **3**

3(2) Florets 3 per spikelet, disarticulation above glumes, fertile floret with dorsal awn ***Anthoxanthum***
3 Florets 2 per spikelet, disarticulation below glumes **4**

4(3)	Inflorescence a spike or spicate raceme or raceme, spikelets embedded or not embedded in inflorescence	**5**
4	Inflorescence a panicle, spikelets not embedded into cavities of inflorescence branches	**6**
5(4)	Spikelets appear embedded in cavities of rachis	***Stenotaphrum***
5	Spikelets not appearing embedded in rachis	***Paspalum***
6(4)	Panicles of spicate (or racemose) primary unilateral branches	**7**
6	Panicles open or contracted but not having spicate primary unilateral branches	**20**
7(6)	First glumes absent or reduced to a cup-like structure on all or some spikelets	**8**
7	First glumes present on all spikelets	**12**
8(7)	Spikelets subtended by a cup-like or disk-like ring, upper lemma mucronate	***Eriochloa***
8	Spikelets not subtended by a cup-like or disk-like ring, upper lemma awnless	**9**
9(8)	Apex of upper lemma margins folded over palea, not clasping, appearing thin	***Digitaria***
9	Apex of upper lemma margins clasping the palea, appearing thick	**10**
10(9)	Lemma of the fertile florets with rounded surface facing away from inflorescence branch axis	***Axonopus***
10	Lemma of fertile florets with rounded surface facing inflorescence branch axis	**11**
11(9)	Lemma of lower florets awned, upper florets mucronate	***Echinochloa***
11	Lemma of lower florets awnless, upper florets rounded to obtuse to acute, not mucronate	***Paspalum***
12(7)	Ligules absent, plants annual	***Echinochloa***
12	Ligules present, plants annual and perennial	**13**
13(12)	Glumes both awned	**14**
13	Glumes both awnless	**16**
14(13)	First glumes rudimentary, lower lemmas and second glumes silky villous	***Melinis***
14	First glumes well-developed, lower lemmas and second glumes glabrous or pubescent, but both not silky villous	**15**
15(14)	Awn of first glumes mucronate or shorter than glume body, plants not stoloniferous	***Echinochloa***
15	Awn of first glumes 6 mm or more long, plants stoloniferous	***Oplismenus***
16(13)	Upper lemma margins folded over palea, not clasping, appearing thin	***Digitaria***
16	Upper lemma margins clasping palea, appearing thick	**17**
17(16)	First glumes adjacent to primary branch axis, upper lemmas smooth	***Brachiaria***
17	First glumes away from primary branch axis, upper lemmas smooth or rugose	**18**
18(17)	Primary branch extending beyond spikelet as a point or bristle	***Paspalidium***
18	Primary branch not extending beyond spikelet as a point or bristle	**19**
19(18)	Panicle branches appressed, upper lemmas smooth	***Panicum***
19	Panicle branches ascending to divergent, upper lemmas rugose	***Urochloa***
20(6)	First glumes reduced to a cup-like structure subtending spikelet	***Eriochloa***
20	First glumes bractlike, not reduced to a cup-like structure (minute in ***Melinis***)	**21**

21(20) Spikelets subtended by 1 to many bristles or flattened spines, bristles or spines forming an involucre, or not fused **22**
21 Spikelets not subtended by bristles or flattened spines, bristles or flattened spines not present **24**

22(21) Spikelets disarticulate above bristles or spines, bristles persistent on inflorescence (see ***Pennisetum glaucum***) ***Setaria***
22 Spikelets disarticulate with the bristles or spines, bristles not persistent on inflorescence **.23**

23(22) Bristles antrorsely barbed ***Pennisetum***
23 Bristles or spines retrorsely barbed ***Cenchrus***

24(21) Upper lemma margins folded over palea margins, relatively thin and flexible **25**
24 Upper lemma margins inrolled (appearing to clasp) over palea margins, relatively thick and rigid (except immature ***Panicum brachyanthum***) **27**

25(24) Rachilla pronounced between florets, first glume present ***Melinis***
25 Rachilla not pronounced between florets, first glume absent **26**

26(25) Pedicels shorter than spikelet ***Anthaenantia***
26 Pedicels 2 to several times longer than spikelet ***Digitaria***

27(24) Second glumes gibbous at base, fertile florets on a short stipe ***Sacciolepis***
27 Second glumes not gibbous at base, fertile florets without stipe **28**

28(27) Ligules absent ***Echinochloa***
28 Ligules present **29**

29(28) Inflorescences of spicate unbranched primary branches ***Urochloa***
29 Inflorescences with branches that rebranch **30**

30(29) Plants forming a basal rosette of leaves different from cauline leaves, culm simple in cool season with a primary panicle inflorescence per culm, later becoming much branched with small axillary inflorescences in summer and fall ***Dichanthelium***
30 Plants not forming a basal rosette of leaves, leaves at base similar to cauline leaves, culms with a primary panicle inflorescence in summer and fall (see also ***Dichanthelium pedicellatum***) **31**

31(30) Lemma of perfect florets transversely rugose ***Urochloa***
31 Lemma of perfect florets smooth or muricate not transversely rugose ***Panicum***

Group G
(2 or more florets/spikelet; spike or spicate raceme or racemes)

1 Spikelets in capitate clusters, usually within the leafy part of plant **2**
1 Spikelets elevated above leaves, in elongated inflorescences not in capitate clusters **4**

2(1) Lemmas 3 awned, awns ciliate ***Blepharidachne***
2 Lemmas 1 awned, awns not ciliate **3**

3(2) Lemmas acuminate, not bifid, florets 2 3, ligules a ring of hairs ***Munroa***
3 Lemmas bifid, florets 6–12, ligule a ciliate membrane ***Dasyochloa***

4(1) Inflorescences unilateral spikes ***Bouteloua***
4 Inflorescences bilateral spikes or spicate racemes or racemes **5**

5(4)	Inflorescences a spike with 1 sessile spikelet per node (occasionally 2 spikelets per node in (***Elymus smithii***)	**6**
5	Inflorescences a spike with 2 or more sessile spikelets per node (rarely 1 spikelet per node in **(*Leymus triticoides***) or a raceme ***(Bromus)***	**13**
6(5)	Inflorescence a raceme	**7**
6	Inflorescence a spike or spicate raceme	**8**
7(6)	Lemmas bifid, awned from between the lobes of the bifid apex	***Bromus***
7	Lemmas entire, awn terminal	***Brachypodium***
8(7)	First glume absent on all except the terminal spikelet	***Lolium***
8	First glume present on all spikelets	**9**
9(8)	Plants annual, culm bases soft	**10**
9	Plants perennial, culm bases firm	**11**
10(9)	Glumes 1 veined	***Secale***
10	Glumes 5 11-veined	***Triticum***
11(9)	Spikelets spreading from rachis at 40E angle	***Agropyron***
11	Spikelets appressed to rachis (less than 30 degree angle)	**12**
12(11)	Ligules a ciliate membrane, lemmas 3 veined	***Tripogon***
12	Ligules membraneous, lemmas 5 several-veined or veins inconspicuous	***Elymus***
13(5)	Spikelets disarticulate in clusters as a complete unit, lemmas 3 veined, veins distinct, stolons or rhizomes present	***Hilaria***
13	Spikelets disarticulate above or below the glumes but not in clusters, lemmas 5-7- veined, veins indistinct, stolons not present	**14**
14(13)	Disarticulation of spikelets below glumes	***Psathyrostachys***
14	Disarticulation of spikelets above the glumes	**15**
15(14)	Rhizomes present	***Leymus***
15	Rhizomes absent	**16**
16(15)	Glumes 2 5-veined	***Elymus***
16	Glumes 1 veined	***Psathyrostachys***

Group H
(2 or more florets/spikelet; inflorescence
a panicle of spicate primary unilateral branches)

1	Inflorescence a unilateral panicle appearing like a raceme, primary branches short, appearing subsessile to central axis	***Schlerochloa***
1	Inflorescence with 2 or more spicate primary unilateral branches, primary branches not short and not appearing subsessile to central axis	**2**
2 (1)	Inflorescence branches digitate, subdigitate, or verticillate	**3**
2	Inflorescence branches alternate or occasionally paired (***Eleusine*** occasionally reduced to 1 2 branches per inflorescence)	**10**
3(2)	Fertile florets 3 or more per spikelet	**4**
3	Fertile florets 1 or 2 per spikelet	**6**

4(3)	Inflorescence primary branches terminating in a bare point	***Dactyloctenium***
4	Inflorescence primary branches terminating in a spikelet	**5**
5(4)	Lemmas 3-awned, panicle branches in verticels, second glumes 1-veined	***Trichloris***
5	Lemmas awnless to mucronate, panicle branches digitate or subdigitate, second glumes 3-7-veined	***Eleusine***
6(3)	Leaf blades without a midvein usually conspicuously distichous, second glumes (excluding awn) equal to or longer than spikelet	***Gymnopogon***
6	Leaf blades with midvein, not conspicuously distichous, second glumes (excluding awn) shorter than spikelet	**7**
7 (6)	Lower lemmas laterally compressed, caryopses triangular or subterete in cross section	**8**
7	Lower lemmas dorsally compressed, caryopses dorsally compressed	**10**
8(7)	Second glume awned	***Eustachys***
8	Second glume awnless	**9**
9(8)	Lowermost lemma awned	***Chloris***
9	Lowermost lemma awnless	***Cynodon***
10(7)	Lowermost lemmas 1 awned	***Enteropogon***
10	Lowermost lemmas 3 awned	***Trichloris***
11(2)	Lemmas obscurely 5 veined, plants annual	***Desmazeria***
11	Lemmas conspicuously 3 veined, plants perennial or annual	**12**
12(11)	Fertile florets 1 per spikelet	**13**
12	Fertile florets 2 or more per spikelet	**14**
13(12)	Spikelets in clusters of 3 per primary branch, upper spikelet with one perfect floret, lower spikelets neuter or staminate	***Cathestecum***
13	Spikelets not in clusters of 3 per primary branch, all spikelets with a perfect floret	***Bouteloua***
14(12)	Glumes 8 mm or more long, lemma veins ciliate	***Trichoneura***
14	Glumes less than 7 8 mm long, lemma veins glabrous or puberulent but not with spreading ciliate hairs	**15**
15(14)	Lemmas glabrous, acute, awnless, spikelets not overlapping on inflorescence Branches	***Eragrostis***
15	Lemmas glabrous or pubescent on veins or near the base, apex acute to obtuse or notched, awned or awnless, when lemmas awnless spikelets overlapping on branches.....	***Leptochloa***

Group I
(2 or more florets/spikelet; reduced floret
at spikelet apex or absent; panicle inflorescence)

1	Plants with unilateral panicles	**2**
1	Plants with rebranched panicles or multiple spikelets per primary branch	**3**
2(1)	Spikelets dimorphic (fertile spikelets mixed with and usually concealed by sterile spikelets), disarticulation below the glumes, glumes 3-9 veined, lemmas 3-veined	***Sclerochloa***
2	Spikelets of similar morphology, disarticulation above the glumes, glumes 1-veined, lemmas 5- veined	***Cynosurus***

3(1). Plants 2 – 6 m tall..... **4**
3. Plants less than 2 m tall..... **7**

4(3). Spikelets 3.5–7 cm long; inflorescences not plumose..... ***Arundinaria***
4. Spikelets less than 3.5 cm long; inflorescences a plume-like panicle..... **5**

5(4). Plants without rhizomes (caespitose); glumes 1-veined..... ***Cortaderia***
5. Plants rhizomatous; glumes 3- to many-veined..... **6**

6(5). Lemmas densely pubescent; rachilla glabrous..... ***Arundo***
6. Lemmas glabrous; rachilla villous..... ***Phragmites***

7(3). Lemmas conspicuously 3-veined..... **8**
7. Lemmas 1 or 5- many-veined, or veins obscure (midvein may be conspicuous)..... **16**

8(7). Veins of lemma glabrous or minutely scabrous; lemma base without long hairs..... **9**
8. Veins of lemma pubescent (occasionally puberulent) to long hairy or lemma base with long hairs..... **11**

9(8). Lemma apex with a slight notch, midvein extending into a mucro; panicles contracted ..... ***Tridens***
9. Lemma apex without a notch, midvein not extending into an awn; panicles open or narrow..... **10**

10(9). Second glumes 1-veined; caryopses not beaked..... ***Eragrostis***
10. Second glumes 3-5-veined; caryopses beaked..... ***Diarrhena***

11(8). Rhizomes present, well developed..... ***Redfieldia***
11. Rhizomes absent..... **12**

12(11). Paleas densely long-ciliate on upper half; plants annual..... ***Triplasis***
12. Paleas not densely long-ciliate on upper half; plants annual or perennial..... **13**

13(12). Leaf blades with thick white margins; inflorescences usually less than 4 cm long..... ***Erioneuron***
13. Leaf blades without thick white margins; inflorescences longer than 5 cm..... **14**

14(13). Lemmas with 3 awns, these 4 mm long or longer..... ***Triraphis***
14. Lemmas awnless or with single awns, if 3 awns then awns mucronate..... **15**

15(14). Inflorescence a panicle of spicate primary branches..... ***Leptochloa***
15. Inflorescence a panicle without spicate primary branches..... ***Tridens***

16 (7). Lemmas 9-or more awned..... **17**
16. Lemmas 0-3-awned..... **19**

17(16). Glumes 1-veined..... ***Pappophorum***
17. Glumes 5-or more-veined..... **18**

18(17). Lowermost lemmas 9-veined; lemma awns 9, subequal, plumose..... ***Enneapogon***
18. Lowermost lemmas 11-13-veined; lemma awns 11- 13, unequal, glabrous to scabrous..... ***Cottea***

19(16). Ligules a line of hairs or ciliate membrane..... **20**
19. Ligules membranous for most or all its length..... **23**

20(19). Lemmas 1-veined, apex entire ..... ***Eragrostis***
20. Lemmas strongly 7-9-veined, apex slightly bifid **21**

21(20). Caryopsis apex with 2 persistent horn-like style bases, outline orbicular ..... ***Vaseyochloa***
21. Caryopsis apex without persistent horn-like style bases, outline linear to narrowly elliptical..... **22**

22(21). Plants annual; lemmas awnless or nearly so ..... ***Schismus***
22. Plants perennial; lemmas awned ..... ***Danthonia***

23(21). Glumes or lemmas awned..... **24**
23. Glumes and lemmas awnless **36**

24(23). Lemmas awned from back with a dorsal attached awn (see also immature ***Bromus lanceolatus***)..... **25**
24. Lemmas awned from apex or from between the lobes of bifid apex..... **29**

25(24). Glumes 1.5 cm long or longer..... ***Avena***
25. Glumes less than 1.5 cm long **26**

26(25). Fertile spikelets more than 4 mm long; upper lemmas with a hooked awn ..... ***Holcus***
26. Fertile spikelets less than 2.6 mm long (excluding the awns; upper lemmas without a hooked awn)..... **27**

27(26) Spikelets dissimilar; plants with staminate spikelets and fertile spikelets; fertile spikelet lemmas awned from near apex ..... ***Lamarckia***
27. Spikelets all similar; plant without **both** staminate spikelets and fertile spikelets;fertile spikelet lemmas awned from below the middle..... **28**

28(27). Lemma awn attached dorsally below midlength of the lemma..... ***Aira***
28. Lemma awn attached dorsally just below the lemma apex..... ***Apera***

29(24). Lemmas bifid, awned from between teeth..... **30**
29. Lemmas acute, not bifid, awned from apex..... **33**

30(29). Glumes and lemmas papillose or papillose hispid on back..... ***Rostraria***
30. Glumes and lemmas glabrous to hairy but not papillose or papillose hispid **31**

31(30). Paleas adnate to caryopsis; lemma apices usually bifid..... ***Bromus***
31. Paleas not adnate to caryopsis; lemma apices, entire (or bifid in ***Sphenopholis interrupta***)..... **32**

32(31). Spikelets less than 8 mm long; plants annual; lemma apices entire (bifid in ***Sphenopholis interupta***)..... ***Sphenopholis***
32. Spikelets more than 8 mm long; plants annual or perennial; lemma apices bifid..... ***Bromus***

33(29). Plants annual; stamen 1 (rarely 3) per floret; leaves less than 2 mm wide; lemmas inconspicuously 5–veined ..... ***Vulpia***
33. Plants perennial; stamen 3 per floret; leaves more than 4 mm wide; lemmas conspicuously 5- veined..... **34**

34(33). Spikelets strongly compressed, on dense 1-sided panicle branches; leaf sheaths keeled.....*Dactylis*
34. Spikelets not strongly compressed, not on dense 1-sided panicle branches; leaf sheaths rounded, or not keeled **35**

35 (34). Basal leaves **with** auricles; blades flat.....*Schedonnorus*
35. Basal leaves **without** auricles; blades flat or involute or conduplicate.....*Festuca*

36(23). Glumes longer than 1.7 cm .....*Avena*
36. Glumes less than 1.7 cm long **37**

37(36). Glumes and lemmas spreading at right angles to rachilla, appearing inflated; pedicels slender.....*Briza*
37. Glumes and lemmas ascending, not close to a right angle to rachilla, not appearing obviously inflated; pedicels various..... **38**

38(37). Sheath margins connate at least one-fourth the length **39**
38. Sheath margins free for more than three-fourths the length..... **42**

39(38). Lemma veins uniformly developed and equally spaced (some prominent, some inconspicuous except at apex.) .....*Glyceria*
39. Lemma veins uniformly developed and not equally spaced (most veins inconspicuous at apex).....**40**

40(39). Spikelets strongly compressed on dense 1-sided panicle branches; leaf sheaths keeled and laterally compressed.....*Dactylis*
40. Spikelets not strongly compressed on dense 1-sided panicle branches; leaf sheaths terete **41**

41(40). Paleas usually adnate to caryopsis; lemma usually awned from between the lobes of a bifid apex, some species awnless; caryopsis with tuft of hair at apex .....*Bromus*
41. Paleas free from caryopsis; lemma awnless (Texas species), apex entire; caryopsis without apical tuft of hair ..... *Melica*

42(38). Spikelets dissimilar; plants with staminate spikelets and fertile spikelet; fertile spikelets awned .....*Lamarckia*
42. Spikelets all similar; plants without both staminate and fertile spikelets; fertile spikelets awnless **43**

43(42). Paleas colorless throughout **44**
43. Paleas yellow, green, or brown, at least on veins..... **45**

44(43). Second glumes obovate, widest above the middle, apex obtuse .....*Sphenopholis*
44. Second glumes lanceolate, widest below the middle, apex acute.....*Koeleria*

45(43). Lemma apex bifid **46**
45. Lemma apex acute or obtuse, not bifid..... **47**

46(43). Rachilla extended beyond upper floret; panicles narrow, congested.....*Sphenopholis*
46. Rachilla not extended beyond upper floret; panicles open, diffuse .....*Aira*

47(45). Lemma apex obtuse to broadly acute; lemma veins 5, distinct or indistinct..... **48**
47. Lemma apex attenuate to narrowly acute; lemma veins 5 or more, often indistinct..... **50**

48(47). Panicles of stiff spicate primary branches; plants annual.....*Desmazeria*
48. Panicles of rebranched primary branches, branches not appearing stiff; plants annual or perennial.....**49**

49(48). Lemmas keeled on back (abaxial surface).....*Poa*
49. Lemmas rounded on back (abaxial surface).....*Puccinellia*

50(47). Spikelets with all unisexual florets; ligules a ciliate membrane.....*Distichlis*
50. Spikelets with 2 or more perfect florets; ligules membranous.....**51**

51(50). Plants annual; stamen 1 (rarely 3) per floret.....*Vulpia*
51. Plants perennial; stamens 3 per floret.....**52**

52(51). Basal leaves **with** auricles; blades flat.....*Schedonorus*
52. Basal leaves **without** auricles; blades flat or involute or conduplicate.....*Festuca*

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