

1905

The Grasses of Nebraska

Charles E. Bessey
University of Nebraska

Robert Bolin , depositor
University of Nebraska - Lincoln, rbolin2@unl.edu

Follow this and additional works at: <http://digitalcommons.unl.edu/bioscifacpub>

 Part of the [Agriculture Commons](#), [Biodiversity Commons](#), [Biology Commons](#), [Botany Commons](#), and the [Weed Science Commons](#)

Bessey, Charles E. and Bolin, Robert , depositor, "The Grasses of Nebraska" (1905). *Faculty Publications in the Biological Sciences*. 558.
<http://digitalcommons.unl.edu/bioscifacpub/558>

This Article is brought to you for free and open access by the Papers in the Biological Sciences at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications in the Biological Sciences by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

REPORT OF THE BOTANIST.

THE GRASSES OF NEBRASKA.

BY CHARLES E. BESSEY, PH. D., STATE BOTANIST.

Thirteen years ago I published "A Preliminary List of the Grasses of Nebraska" in the Annual Report of the State Board of Agriculture for the year 1891,* including the "species which grow wild, or which have escaped from cultivation and maintain themselves without our care." One hundred and fifty-four grasses were enumerated of which one hundred and thirty-six were indigenous.

A year later this was followed by "A Preliminary Description of the Native and Introduced Grasses of Nebraska,"† also including one hundred and fifty species, of which one hundred and twenty-six were regarded as indigenous, twenty-eight being introduced either as cultivated plants, or as mere weeds. The present list includes two hundred species, of which fifty are introduced, while fully one hundred and fifty are indigenous.

The Grass Family (*Gramineæ*) is now held to include somewhat more than 3,500 species, distributed among thirteen tribes. It will be seen from the list below that of these thirteen tribes we have representatives of ten. One of the unrepresented tribes contains the Bamboos (*Bambuseæ*) which are almost wholly tropical and subtropical. The two remaining small tribes (*Zoysieæ* and *Tristegineæ*) are also tropical and subtropical.

The arrangement of the tribes here given differs from that usually followed. It expresses more nearly my ideas of their proper relationship.

FAMILY GRAMINEAE.—THE GRASSES.

TRIBE I.—Festuceae.—THE FESCUE GRASSES.

This is one of the largest tribes of the grasses and contains many very valuable species for forage purposes. They are usually of medium size, and nearly always have spreading tops (panicles) of several-flowered spikelets. We have sixty-three species, of which forty-seven are indigenous.

1. Hungarian Brome Grass (*Bromus inermis* Leyss.). This is the well-known Brome Grass, which has proved to be such a valuable addition to the forage plants of the state.
2. Wood Chess (*Bromus ciliatus* L.). Throughout the state.

* Issued as a separate pamphlet under date of April 15, 1892.

† Annual Report of the Nebraska State Board of Agriculture for 1892, pp. 209-279. Issued as a separate pamphlet under date of June 27, 1903.

3. Porter's Chess (*Bromus porteri* (Coulter) Nash). Northwestern Nebraska.
4. Kalm's Chess (*Bromus kalmii* A. Gray). Central and northwestern Nebraska.
5. Soft Chess (*Bromus hordeaceus* L.). A native of Europe, which has become widely distributed, having reached Nebraska.
6. Chess, or Cheat (*Bromus secalinus* L.). Becoming common in wheat fields since the cultivation of winter wheat has been general in the state.
7. Upright Chess (*Bromus racemosus* L.). Introduced as a weedy grass in the eastern portion of the state.
8. Short-bearded Chess (*Bromus brevistaratus* (Hoek.) Buckley). Central and western Nebraska.
9. Western Brome Grass (*Bromus marginatus* Nees). This western species, native of the Rocky Mountain region from Alberta to Arizona, is being introduced experimentally as a promising forage plant.
10. Slender Fescue (*Festuca octoflora* Walt.). Common in central and western Nebraska, where, for several years, it has been more than usually abundant.
11. Sheep's Fescue (*Festuca ovina* L.). A rather common, small, wiry grass, occurring throughout the state.
12. Tall Fescue (*Festuca elatior* L.). A valuable cultivated forage plant, which has been introduced in eastern Nebraska.
13. Nodding Fescue (*Festuca nutans* Willd.). A widely distributed native grass.
14. Hard Fescue (*Festuca duriuscula* Lam.). Occasionally grown experimentally for forage.
15. Buffalo Bunch Grass (*Festuca scabrella* Torr.). Widely distributed.
16. Watson's Fescue (*Festuca watsoni* Nash.). Said to occur in Nebraska (*Britton's Manual*), but I have seen no authentic specimens.
17. Meadow Fescue (*Festuca pratensis* Huds.). A native of Europe, long cultivated in the Eastern United States, and now being introduced into Nebraska as a valuable forage plant.
18. Eaton's Grass (*Eatonia pennsylvanica* (DC.) A. Gray). Common in eastern Nebraska.
19. Early Bunch Grass (*Eatonia obtusata* (Mx.) A. Gray). Common in most parts of the state.
20. Fowl-meadow Grass (*Panicularia nervata* (Willd.) Kuntze). Widely distributed in wet places in the state.
21. Reed Meadow Grass (*Panicularia americana* (Torr.) MacM.). A tall, broad-leaved aquatic grass of central and northern Nebraska.

22. Pale Manna Grass (*Panicularia pallida* (Torr.) Kuntze). North-western Nebraska.
23. Large Quake Grass (*Briza maxima* L.). Grown in gardens as an ornamental grass, on account of its large, inflated spikelets.
24. Slender Meadow Grass (*Puccinellia airoides* (Nutt.) Wats. & Coult.). Western Nebraska.
25. Spreading Meadow Grass (*Puccinellia distans* (L.) Parl.). North-western Nebraska.
26. False Fescue (*Scolochloa festucea* (Willd.) Link.). Central Nebraska.
27. Annual Blue Grass (*Poa annua* L.). Introduced as a weedy annual in eastern Nebraska.
28. Northern Blue Grass (*Poa nemoralis* L.). Northwestern Nebraska.
29. Red-top Blue Grass (*Poa flava* L.). Central to northern counties.
30. Kentucky Blue Grass (*Poa pratensis* L.). One of the best pasture and lawn grasses, now commonly introduced in all portions of the state.
31. Woods Blue Grass (*Poa sylvestis* A. Gray). Northwestern Nebraska.
32. Grove Blue Grass (*Poa alsodes* A. Gray). Northwestern Nebraska.
33. Wild Blue Grass (*Poa pseudopratensis* Scribner & Rydberg). In central and western Nebraska, where it resembles Kentucky blue grass.
34. Canadian Blue Grass (*Poa compressa* L.). Eastern and northern Nebraska, and often sown for growing in lawns.
35. Prairie Blue Grass (*Poa arida* Vasey). Throughout the state.
36. Mountain Blue Grass (*Poa alpina* L.). In western Nebraska.
37. Buckley's Blue Grass (*Poa buckleyana* Nash). Central and north-western counties
38. Nevada Blue Grass (*Poa nevadensis* Vasey). Northwestern Nebraska.
39. Drooping Blue Grass (*Poa reflexa* Vasey & Scrib.). Northern Nebraska.
40. Western Blue Grass (*Poa lucida* Vasey). Western Nebraska.
41. Hairy Blue Grass (*Poa laevigata* Scrib.). Western Nebraska.
42. Big Candy Grass (*Eragrostis major* Host.). Widely distributed as one of the most common of introduced weeds.
43. Purple Candy Grass (*Eragrostis pectinacea* (Mx.) Steud.). A pretty, purplish, weedy grass, widely distributed in the state.
44. Pursh's Candy Grass (*Eragrostis purshii* Schrad.). Widely distributed.
45. Frank's Candy Grass (*Eragrostis frankii* Steud.). Probably to be found in eastern Nebraska, although not yet collected.
46. Slender Candy Grass (*Eragrostis pilosa* (L.) Beauv.). Specimens

- which seem to be of this species have been collected in northern Nebraska.
47. Headed Candy Grass (*Eragrostis capitata* (Nutt.) Nash). Southeastern Nebraska.
 48. Blow-out Candy Grass (*Eragrostis trichodes* (Nutt.) Nash). Common in the sandhills, especially in and about "blow-outs."
 49. Creeping Candy Grass (*Eragrostis hypnoides* (Lam.) B. S. P.). Common in wet places in eastern Nebraska.
 50. Orchard Grass (*Dactylis glomerata* L.). Grown to some extent in eastern Nebraska, and appearing as a "volunteer" in many meadows and pastures.
 51. Salt Grass (*Distichlis spicata* (L.) Greene). Common throughout the state on salt marshes and alkaline soils, where it thrives in the salt-saturated earth.
 52. Crested Dogs-tail (*Cynosurus cristatus* L.). Occasionally grown experimentally for forage.
 53. Wild June Grass (*Koeleria cristata* (L.) Pers.). A common prairie grass throughout the state.
 54. Water Grass (*Catabrosa aquatica* (L.) Beauv.). An aquatic grass of central and western Nebraska.
 55. Tall Melic Grass (*Melica diffusa* Pursh). Eastern Nebraska.
 56. Twin Grass (*Korycarpus diandrus* (Mx.) Kuntze). Eastern Nebraska.
 57. Spike Grass (*Diplachne acuminata* Nash). Central to northeastern Nebraska.
 58. Blow-out Grass (*Redfieldia flexuosa* (Thurb.) Vasey). Common in blow-outs in the sand hills of central Nebraska.
 59. Purple Sand Grass (*Triplasis purpurea* (Walt.) Chapm.). Northern Nebraska.
 60. Tall Red-top (*Tricuspis seslerioides* (Mx.) Torr.). In southeastern Nebraska.
 61. Reed (*Phragmites phragmites* (L.) Karst.). Throughout the state, in ponds and other wet places, where it attains a height of ten feet or more.
 62. Pampas Grass (*Gynerium argenteum* Nees). A beautiful ornamental grass, native of southern Brazil, frequently cultivated in gardens.
 63. False Buffalo Grass (*Munroa squarrosa* (Nutt.) Torr.). Central and western Nebraska.

TRIBE II.—*Hordeae*.—THE WHEAT GRASSES.

In this tribe are included some of the most important cereals, as the various kinds of wheat, rye and barley. The plants are rather large grasses, with erect, stout stems, which terminate in single cylindrical heads, consisting of large spikelets, sessile alternately on the opposite

sides of the more or less zigzag axis. We have thirty-two species, of which twenty-three are indigenous.

64. Richardson's Wheat Grass (*Agropyrum richardsonii* Schrad.). Western Nebraska.
65. Bearded Wheat Grass (*Agropyrum caninum* (L.) R. & S.). Central and northern Nebraska.
66. Slender Wheat Grass (*Agropyrum tenerum* Vasey). Western Nebraska.
67. Purple Wheat Grass (*Agropyrum violaceum* (Hornem.) Vasey). Northern Nebraska.
68. Gmelin's Wheat Grass (*Agropyrum gmeleni* Scribn. & Sm.). Western Nebraska.
69. Western Wheat Grass (*Agropyrum occidentale* Scribner.). Common throughout the state and recognized as one of the best of the native grasses.
70. Northern Wheat Grass (*Agropyrum dasystachyum* (Hook.) Vasey). Northwestern Nebraska.
71. False Quack Grass (*Agropyrum pseudorepens* Scribn. & Sm.). Widely distributed in the state.
72. Quack Grass (*Agropyrum repens* (L.) Beauv.). Apparently common, although no doubt often confused with the preceding.
73. Perennial Rye Grass (*Lolium perenne* L.). Cultivated somewhat for hay and pasture.
74. Einkorn (*Triticum monococcum* L.). A species of wheat in which the slender head breaks up very easily into short joints. It is grown only as a curiosity.
75. Polish Wheat (*Triticum polonicum* L.). Known by its very large chaff. It is occasionally grown as a curiosity and is sometimes shown at fairs under the name of "Giant Rye," although it is really a wheat.
76. Common Wheat (*Triticum vulgare* Vill.). This includes "spring," "winter," "bearded" and "smooth" varieties.
77. Macaroni Wheat (*Triticum durum* Desf.). Recently introduced successfully as a valuable wheat, especially in the drier portions of the state.
78. Spelt (*Triticum spelta* L.). Grown somewhat in the state. It has a loose, slim head, which is bearded in some varieties, and smooth in others, and the grains are permanently enclosed in the hard chaff.
79. Emmer (*Triticum dicoccum* Schrank). This wheat has been introduced in Nebraska within the last few years. It has a compact, flat, two-ranked head, which is always bearded, and its grains are permanently enclosed in the hard chaff.

80. Rye (*Secale cereale* L.). Grown to a limited extent in eastern Nebraska.
81. Slender Wild Rye (*Elymus striatus* Willd.). Central and western Nebraska.
82. Virginian Wild Rye (*Elymus virginicus* L.). Eastern and northern Nebraska.
83. Hairy Wild Rye (*Elymus hirsutiglumis* Scribn. & Sm.). Northern Nebraska.
84. Common Wild Rye (*Elymus canadensis* L.). Common throughout the state. A glaucous variety (var. *glaucifolius* (Muhl.) Torr.) is occasionally found with the common form.
85. Short-headed Wild Rye (*Elymus brachystachys* Scribn. & Sm.). Although I have no specimens of this species it is certainly a native of the state.
86. Big Wild Rye (*Elymus robustus* Scribn. & Sm.). Central Nebraska.
87. Beardless Wild Rye (*Elymus condensatus* Presl.). Central Nebraska.
88. Smooth Wild Rye (*Elymus glaucus* Buckl.). Pretty generally distributed throughout the state.
89. Macoun's Wild Rye (*Elymus macounii* Vasey). Northern and north-western Nebraska.
90. Bottle-Brush Grass (*Hystrix hystrix* (L.) Willd.). Eastern Nebraska.
91. Bristly Wild Rye (*Sitanion elymoides* Raf.). Western Nebraska.
92. Bristly Wild Barley (*Hordeum jubatum* L.). A common weed throughout the state.
93. Short-bristled Wild Barley (*Hordeum nodosum* L.). A common weed throughout the state.
94. Little Wild Barley (*Hordeum pusillum* Nutt.). In the foothill region in western Nebraska.
95. Field Barley (*Hordeum sativum* Jessen). Commonly cultivated in many of the eastern counties.

TRIBE III.—Chlorideae.—THE GRAMA GRASSES.

The plants of this tribe are peculiar in having their spikelets arranged in one-sided spikes. The plants are of medium size, or even small, in some cases not being more than a few inches in height. We have ten species, of which eight are indigenous.

96. Goose Grass (*Eleusine indica* (L.) Gaertn.). An occasional weed in eastern Nebraska.
97. Egyptian Grass (*Dactyloctenium aegypticum* (L.) Willd.). An occasional weed in eastern Nebraska.
98. Slough Grass (*Beckmannia erucaeformis* (L.) Host.). In wet places in central Nebraska.

99. Buffalo Grass (*Bulbils dactyloides* (Nutt.) Raf.). Formerly common throughout the state, but now rare in eastern Nebraska.
100. Black Grama (*Bouteloua hirsuta* Lag.). Common throughout the state, but more common westward.
101. Blue Grama (*Bouteloua oligostachya* (Nutt.) Torr.). The common Grama throughout the state.
102. Tall Grama (*Atheropogon curtispendus* (Nutt.) Torr.). Throughout the state, and considered to be one of the most promising of our wild grasses for bringing under cultivation.
103. Cord Grass (*Spartina cynosuroides* (L.) Willd.). In moist lands throughout the state.
104. Little Cord Grass (*Spartina gracilis* Trin.). Western Nebraska.
105. Wild Crab Grass (*Schedonardus paniculatus* (Nutt.) Trelease). A short, weedy, wiry grass, which is common throughout the state.

TRIBE IV.—Aveneae.—THE OAT GRASSES.

This small tribe of grasses is characterized by having the awns (beards) when present, on the *back* of the chaff, instead of at the top, as in most other tribes. We have seven species, of which four are indigenous.

106. Wild Oat-grass (*Danthonia spicata* (L.) Beauv.). Although no authentic specimens of this species have been collected within the borders of Nebraska, it is known to occur in the Black Hills, and in Kansas, and doubtless will be found in western Nebraska.
107. Common Oats (*Avena sativa* L.). Grown throughout the state.
108. Wild Oats (*Avena striata* Michx.). In northern and northwestern Nebraska.
109. Yellow Oat-grass (*Trisetum flavescens* (L.) R. & S.). Introduced into cultivation in eastern Nebraska to a limited extent.
110. Narrow Oat-grass (*Trisetum subspicatum* (L.) Beauv.). While this species has not yet been detected in Nebraska it probably occurs in the western counties.
111. Tufted Hair-grass (*Deschampsia caespitosa* (L.) Beauv.). Known to occur in Wyoming, and to be looked for in our western counties. It has been grown under cultivation to a limited extent in eastern Nebraska.
112. Tall Oat-grass (*Arrhenatherum elatius* (L.) Beauv.). A valuable old world grass which is now considerably grown for forage in eastern Nebraska.

TRIBE V.—Agrostideae.—THE MEADOW GRASSES.

In this large tribe, which is represented in our flora by many native species, the spikelets are typically one-flowered, and the heads are gen-

erally loose and spreading (paniculate), although in a few cases they are spiked, as in the common timothy. We have forty-four species, of which forty-one are indigenous.

113. Prairie Dropseed Grass (*Sporobolus asper* (Mx.) Kunth). On the eastern prairies and the central sand hills of the state.
114. Long-leaf Dropseed Grass (*Sporobolus longifolius* (Torr.) Wood.). Said to occur in the state (*Britton's Manual*), but I have had no authentic specimens.
115. Large Poverty Grass (*Sporobolus vaginaeflorus* (Torr.) Wood.). Widely distributed in the eastern half of the state.
116. Small Poverty Grass (*Sporobolus neglectus* Nash). Northern Nebraska.
117. Short-leaf Dropseed Grass (*Sporobolus brevifolius* (Nutt) Nash). Northern Nebraska.
118. Prairie Dropseed Grass (*Sporobolus cuspidatus* (Torr.) Wood.). Throughout the state.
119. Alkali Dropseed Grass (*Sporobolus airoides* Torr.). Central and western Nebraska.
120. Sand Dropseed Grass (*Sporobolus cryptandrus* (Torr.) A. Gray). Throughout the state.
121. Northern Dropseed Grass (*Sporobolus heterolepis* A. Gray). Eastern and northern Nebraska.
122. Rough Dropseed Grass (*Sporobolus asperifolius* Nees & Meyen.). Widely distributed.
123. Annual Dropseed Grass (*Sporobolus confusus* Vasey). Western Nebraska.
124. Blue-joint Grass (*Calamagrostis canadensis* (Mx.) Beauv.). A large prairie grass of the eastern half of the state.
125. Macoun's Reed-grass (*Calamagrostis macouniana* Vasey). According to the range given in *Britton's Manual* ("Manitoba and Montana to Washington, south to Missouri.") this must occur in Nebraska, but I have no authentic specimens.
126. Narrow Reed-grass (*Calamagrostis neglecta* (Ehrh.) Gaertn.). Throughout the state.
127. Slender Reed-grass (*Calamagrostis confinis* Nutt.). Widely distributed.
128. Sand Grass (*Calamovilfa longifolia* (Hook.) Hack.). Throughout the state.
129. Red-top (*Agrostis alba* L.). Throughout the state in the wild form, and also cultivated as a valuable hay grass.
130. Rough Red-top (*Agrostis asperifolia* Trin.). Central and western Nebraska.

131. Tickle Grass (*Agrostis hyemalis* (Walt.) B. S. P.). Everywhere, as a weedy, worthless grass.
132. Creeping Bent Grass (*Agrostis stolonifera* L.). Occasionally grown experimentally for forage.
133. Indian Reed-grass (*Cinna arundinacea* L.). In the eastern half of the state.
134. Meadow Foxtail (*Alopecurus pratensis* L.). Sometimes cultivated experimentally as a hay grass.
135. Marsh Foxtail (*Alopecurus geniculatus* L.). Occasionally found on wet lands in all parts of the state.
136. Timothy (*Phleum pratense* L.). A commonly cultivated grass, which has also escaped from cultivation in all parts of the state.
137. Little Mountain Rice (*Oryzopsis micrantha* (Tr. & Rupr.) Thurb.). In the northern and northwestern counties.
138. Big Mountain Rice (*Eriocoma cuspidata* Nutt.). In the sandhills and foothills.
139. Meadow Grass (*Muhlenbergia mexicana* (L.) Trin.). Widely distributed.
140. Muhlenberg's Grass (*Muhlenbergia racemosa* (Mx.) B. S. P.). A common wild grass found throughout the state. It is worthy of careful trial as a hay producing grass.
141. Wood Grass (*Muhlenbergia sylvatica* Torr.). This grass is reported as occurring in Nebraska (*Britton's Manual*), but I have seen no authentic specimens.
142. Slender Muhlenberg's Grass (*Muhlenbergia tenuiflora* (Willd.) B. S. P.). According to the range given in *Britton's Manual* ("Massachusetts to southern Ontario and Minnesota, south to Alabama and Texas") this species must occur in Nebraska, but I have seen no authentic specimens.
143. Nimble Will (*Muhlenbergia diffusa* Willd.). Eastern Nebraska.
144. Blow-out Grass (*Muhlenbergia pungens* Thurb.). On the edges of blow-outs in the sandhills.
145. Brachyelytrum (*Brachyelytrum erectum* (Schreb.) Beauv.). Eastern Nebraska.
146. Short-bearded Porcupine Grass (*Stipa viridula* Trin.). Western Nebraska.
147. Slender Porcupine Grass (*Stipa comata* Trin.). In the western half of the state.
148. Big Porcupine Grass (*Stipa spartea* Trin.). Common in eastern Nebraska.
149. Poverty Grass (*Aristida dichotoma* Mx.). Reported for Nebraska (*Britton's Manual*), but I have seen no authentic specimens.

150. Tufted Beard Grass (*Aristida bastramea* Engelm.). Northern, central and western Nebraska.
151. Bushy Beard Grass (*Aristida fasciculata* Torr.). Eastern and northern counties.
152. Fendler's Beard Grass (*Aristida fendleriana* Steud.). Northern Nebraska.
153. Purple Beard Grass (*Aristida longiseta* Steud.). Throughout the state.
154. Prairie Beard Grass (*Aristida oligantha* Mx.). In the eastern half of the state.
155. Slender Beard Grass (*Aristida gracilis* Ell.). Northern Nebraska.
156. Jointed Beard Grass (*Aristida tuberculosa* Nutt.). Central Nebraska.

TRIBE VI.—Phalarideae.—THE CANARY GRASSES.

This small tribe of about sixty species, more than half of which are natives of Australia and North Africa, is characterized by one-flowered spikelets, which have four empty glumes. We have but one native and two cultivated species in Nebraska.

157. Wild Ribbon Grass (*Phalaris arundinacea* L.). East and central Nebraska.
158. Canary Grass (*Phalaris canariensis* L.). An Old World species which has become widely distributed in the state.
159. Sweet Vernal Grass (*Anthoxanthum odoratum* L.). Occasionally cultivated for its pleasant fragrance when dried.

TRIBE VII.—Oryzaceae.—THE RICE GRASSES.

This is another small tribe, including about thirty-five species widely distributed in all parts of the world, and characterized by laterally compressed, one-flowered spikelets. We have three species, all indigenous.

160. Virginian Cut-grass (*Homalocenchrus virginicus* (Willd.) Britt.). Eastern and central Nebraska.
161. Rice Cut-grass (*Homalocenchrus oryzoides* (L.) Pall.). Throughout the state.
162. Wild Rice (*Zizania aquatica* L.). In ponds and slow streams, eastern and central Nebraska.

TRIBE VIII.—Paniceae.—THE MILLET GRASSES.

This large tribe contains between six and seven hundred species, widely distributed throughout tropical and the warmer temperate climates. The spikelets are one-flowered, and the empty glumes very unequal and of hard texture. We have twenty-seven species, of which seventeen are indigenous.

163. Old Witch Grass (*Panicum capillare* L.). An annoying weed found in all parts of the state.
164. Diffuse Panic Grass (*Panicum cognatum* Schultes). According to the range given for this species in *Britton's Manual* ("Illinois to Georgia and Florida, west to Minnesota, Missouri and Arizona") it should be found in eastern Nebraska, but I have seen no authentic specimens.
165. Sprouting Crab Grass (*Panicum proliferum* Lam.). Eastern Nebraska.
166. Switch Grass (*Panicum virgatum* L.). A tall, stout grass, growing throughout the state.
167. Red-top Panic Grass (*Panicum agrostoides* Spreng.). Central Nebraska.
168. Small Panic Grass (*Panicum depauperatum* Muhl.). Eastern and northern counties.
169. Elongated Panic Grass (*Panicum perlongum* Nash). The range given for this species in *Britton's Manual* ("Ill. to S. Dak. and the Indian Territory") indicates that it should be found in Nebraska, but I have no authentic specimens.
170. Small Panic Grass (*Panicum dichotomum* L.). Specimens from eastern and central Nebraska have been somewhat doubtfully referred to this species.
171. Indian Millet (*Panicum miliaceum* L.). This oldest of all millets, and one of the oldest of all cereals, is frequently grown as a forage plant. It is supposed to be a native of India, where it is still grown for human food.
172. Hairy Panic Grass (*Panicum unciphyllum* Trin.). In central and northern Nebraska.
173. Wilcox's Panic Grass (*Panicum wilcoxianum* Vasey). Eastern, central, and northern Nebraska.
174. Lieberg's Panic Grass (*Panicum liebergii* (Vasey) Scribner). Said to occur in Nebraska (*Britton's Manual*), but I have seen no authentic specimens.
175. Scribner's Panic Grass (*Panicum scribnerianum* Nash). Widely distributed throughout the state.
176. Small-fruited Panic Grass (*Panicum polyanthes* Schult.). Eastern Nebraska.
177. Porter's Panic Grass (*Panicum porterianum* Nash). According to the range given for this species in *Britton's Manual* ("Maine and Ontario to Minnesota, South to Florida, and Texas") it should be found in Nebraska, but I have seen no authentic specimens.
178. Barnyard Grass (*Echinochloa crus-galli* (L.) Beauv.). An introduced weedy grass, now found in all parts of the state. It might be made a valuable annual forage plant like the common millet.

179. Small Crab-grass (*Syntherisma linearis* (Krock) Nash.) Northern Nebraska.
180. Large Crab-grass (*Syntherisma sanguinalis* (L.) Dulac). An introduced annual weed in the eastern half of the state.
181. Dotted millet (*Eriochloa punctata* (L.) W. Hamilt.). Said to occur in Nebraska (*Britton's Manual*), but I have seen no authentic specimens.
182. Bead-grass (*Paspalum setaceum* Mx.). Eastern, central, and northern Nebraska.
183. Feather Grass (*Pennisetum villosum* Brown). Commonly grown as an ornamental grass in garden beds.
184. Pearl millet (*Penicillaria typhoideum* Rich.). Grown considerably as a forage plant.
185. Barbed Foxtail (*Chaetochloa verticillata* (L.) Scribner). An Old World weed which has appeared in eastern Nebraska.
186. Yellow Foxtail (*Chaetochloa glauca* (L.) Scribner). A common Old World weed in the eastern half of Nebraska.
187. Green Foxtail (*Chaetochloa viridis* (L.) Scribner). A common Old World weed in almost all parts of the state.
188. Italian Millet (*Chaetochloa italica* (L.) Kunth). Widely grown as a forage plant under the names "German Millet," "Golden Millet," "Hungarian Grass," etc.
189. Sand-bur (*Cenchrus tribuloides* L.). A troublesome native weed in the eastern half of the state.

TRIBE IX.—*Andropogoneae*.—THE CANE GRASSES.

This large tribe of mostly large grasses is characterized by a spiked inflorescence in which the flowers are perfect or at least not separated, and frequently solid stems. We have seven species, of which five are indigenous.

190. Johnson Grass (*Sorghum halapense* (L.) Pers.). Grown somewhat as a forage plant in southern Nebraska.
191. Sorghum (*Sorghum vulgare* Pers.). Much grown in many parts of the state. It includes Chinese Sugar Cane, Broom Corn, Kaffir Corn, Millo Maize, Durra, etc.
192. Bushy Blue-stem (*Sorghastrum nutans* (L.) Nash). Throughout the state.
193. Little Blue-stem (*Andropogon scoparius* Mx.). Throughout the state.
194. Big Blue-stem (*Andropogon furcatus* Muhl.). Throughout the state.
195. Smooth Big Blue-stem (*Andropogon paucipilus* Nash). Said to occur in Nebraska (*Britton's Manual*), but I have seen no authentic specimens.
196. Turkey-foot (*Andropogon hallii* Hack.). Common in the sand-hills.

TRIBE X.—*Maydeae*.—THE MAIZE GRASSES.

This small tribe of a dozen or so species has spiked inflorescences in which the staminate and pistillate spikelets are separated, and the stems are solid. Of our four species, but one is indigenous.

197. Job's Tears (*Coix lachryma* L.). This odd grass is frequently grown in gardens as an ornamental plant.
198. Gama Grass (*Tripsacum dactyloides* L.). This large grass grows in wet places in eastern Nebraska.
199. Teosinte (*Euchlaena mexicana* Schrader). Occasionally grown experimentally. It resembles Indian Corn very closely.
200. Maize (*Zea mays* L.). The common Indian corn is one of the most widely grown of the large grasses.

SUMMARY.

It is interesting to note that of the one hundred and fifty indigenous species listed above, fully one hundred and thirty have more or less value for forage, while twenty are to be regarded as weeds. Of the fifty species which have been introduced ten are cereals, twenty forage plants, fourteen weeds, while six are grown solely for ornamental purposes. Adding the indigenous and introduced species we find that no less than one hundred and fifty possess value as forage plants, ten yield cereals, six are grown for ornamental uses, while thirty-four are more or less troublesome weeds.

Tabulating these facts by tribes we obtain the following results:

Table Showing Usefulness of Nebraska Grasses.

Tribes.	Forage.	Cereals.	Weeds.	Ornaments.
I. Fescue Grasses.				
Indigenous	40	..	7	..
Introduced	8	..	6	2
II. Wheat Grasses.				
Indigenous	20	..	3	..
Introduced	1	8	..	..
III. Grama Grasses.				
Indigenous	7	..	1	..
Introduced .....	..	..	1	1
IV. Oat Grasses.				
Indigenous	3	..	1	..
Introduced	2	1	..	..
V. Meadow Grasses.				
Indigenous	35	..	6	..
Introduced	3	..	..	..
VI. Canary Grasses.				
Indigenous	1	..	..	..
Introduced .....	..	..	1	1
VII. Rice Grasses.				
Indigenous	3	..	..	..
Introduced .....	..	..	..	..

Tribes.	Forage.	Cereals.	Weeds.	Ornaments.
VIII. Millet Grasses.				
Indigenous	15	..	2	..
Introduced	3	..	6	1
IX. Cane Grasses.				
Indigenous	5	..	..	..
Introduced	2	..	..	..
X. Maize Grasses.				
Indigenous	1	..	..	..
Introduced	1	1	..	1
Totals	150	10	34	6