

## Revised Names for some of the Madras Grasses.

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Among plants that are useful to man, grasses are by far the most important. The crops that provide the staple food for the greater part of mankind, namely, paddy, wheat, maize, sorghum, ragi, *cumbu* and *tenai*, belong to this group. The animals that furnish food and labour, wool and leather live principally on grasses. Besides giving us food, grasses are sources of starch, alcohol and sugar. In America enormous quantities of cooking oil are secured from the germ of corn (*Zea Mays*). A good many grasses furnish material, for making brooms and brushes, and some are important sources of fibre for the manufacture of paper and cordage. Some yield essential oils. In many parts of India and a great part of Asia, bamboo which is a giant grass forms the principal timber for the construction of dwellings of the poor and bridges over village streams and also furnishes material for a variety of articles of domestic use and cheap furniture.

The family Gramineae to which the grasses belong is a very large one consisting of 500 genera and 4000 species of which in the Madras Presidency we have 132 genera and 388 species. The list of genera and species in the Madras Presidency has been revised by C. E. C. Fischer, late of the Indian Forest service, and was published in the year 1934 as Part X of the Flora of the Presidency of Madras by J. S. Gamble. The Revision has been done after considerable scrutiny at Kew. The material for the Madras Flora was mostly from the Madras Herbarium at the Research Institute, Coimbatore, and in the preparation of the Flora, Mr. C. E. Hubbard of Kew gave considerable help and guidance. The genera are those adopted by Mr. Stapf in the Flora of Tropical Africa wherever possible.

Since there has been considerable revision and change of names, both in the genera and species, and in Madras, the names of as many as 211 species have been changed, the revised names are all brought together here with the old names given opposite to each of them, so that the list may be of help to the research student for ready reference.

It may be seen from a perusal of the revised list of names that among the genera that have undergone change the following deserve mention viz., *Andropogon*, *Panicum*, *Eragrostis* and *Ischaemum*, as in their case several of the species have now been placed entirely under new genera while some others have been given new specific names.

I am very much indebted to Sri Rao Bahadur G. N. Rangaswami Ayyangar, Millets Specialist and Geneticist, for the encouragement he gave me to write up this short note.



<i>Revised Names.</i>	<i>Old Names.</i>
41. <i>Vetiveria Lawsoni</i> , Blatter et McCann.	<i>A. Lawsoni</i> , Hook. f.
42. <i>Pseudosorghum fasciculare</i> , A. Camus.	<i>A. fascicularis</i> , Roxb.
43. <i>Sorghum nitidum</i> , Pers.	<i>A. serratus</i> , Thunb.
44. <i>S. Stapfii</i> , C. E. C. Fischer n. comb.	<i>A. Stapfii</i> , Hook. f.
45. <i>S. halepense</i> , Pers.	<i>A. halepensis</i> , Brot.
46. <i>S. durra</i> , Stapf. var. <i>coimbotoricum</i> , Snow.	<i>Andropogon Sorghum</i> , Brot. Tam. <i>Periamanjai cholam</i>
47. <i>S. cernuum</i> , Host var. <i>globosum</i> .	do. Tel. <i>Tella Jonna</i> ,
48. <i>S. subglabrescens</i> , Schweinf, et Aschers. var. <i>compactam</i> .	do. Tam. <i>Chinnamanjal cholam</i>
49. <i>S. subglabrescens</i> , Schweinf, et Aschers. var. <i>Irungiforme</i> .	Tam. <i>Peria Vellai, Chitrai Vellai</i> . do.
50. <i>S. durra</i> , Stapf. var. <i>mediocre</i> .	do. Tel. <i>Patcha jonna</i>
51. <i>S. Roxburghii</i> Stapf. var. <i>hians</i> , stapf.	Tam. <i>Talaivirchan cholam</i> .
52. <i>S. dochna</i> , var. <i>irungu</i> .	do. Tam. <i>Irungu cholam</i> .
53. " var. <i>melliferum</i> .	do. Tam. <i>Irungu cholam</i> .
54. " var. <i>obovatum</i> .	do. Tam. <i>Sen cholam</i> .
55. <i>Chrysopogon aciculatus</i> , Trin.	<i>A. aciculatus</i> , Retz.
56. <i>C. asper</i> , Heyne ex Hook. f.	<i>A. asper</i> , Heyne ex Hook. f.
57. <i>C. verticillatus</i> , Trin.	<i>A. verticillatus</i> , Roxb.
58. <i>C. orientalis</i> , A. Camus.	<i>A. Wightianus</i> , Steud.
59. <i>C. zeylanicus</i> , Thw.	<i>A. zeylanicus</i> , Nees.
60. <i>C. montanus</i> , Trin.	<i>A. monticola</i> , Schult.
61. <i>C. Hackelii</i> , C. E. C. Fischer n. comb.	<i>A. Hackelii</i> , Hook. f.
62. <i>C. polyphyllus</i> , Blatter et McCann.	<i>A. polyphyllus</i> , Hack. ex Hook. f.
63. <i>C. velutinus</i> . Arn. ex Hook. f.	<i>A. velutinus</i> , Hook. f.
64. <i>Dichanthium annulatum</i> , Stapf.	<i>A. annulatus</i> , Forsk.
65. <i>D. caricosum</i> A. Camus.	<i>A. caricosus</i> , Linn.
66. <i>D. pallidum</i> , Stapf. MS n. comb.	<i>Apocopis pallida</i> , Hook. f.
67. <i>D. nodosum</i> , Willem.	<i>Andropogon caricosus</i> , Linn. var. <i>mollicomus</i> , Hack.
68. <i>D. polyptychum</i> , A. Camus.	<i>A. polyptychus</i> , Steud.
69. <i>Heteropogon contortus</i> , Beauv. ex Roem. et Schult.	<i>A. contortus</i> , Linn.
70. <i>H. polystachyos</i> , Schult.	<i>A. polystachyos</i> , Roxb.
71. <i>H. oliganthus</i> , Blatter et McCann.	<i>A. oliganthus</i> , Hochst.
72. <i>H. bellariensis</i> , C. E. C. Fischer n. comb.	<i>A. bellariensis</i> , Hack.
73. <i>Themeda triandra</i> , Forsk.	<i>Anthistiria imberbis</i> , Retz.
74. <i>T. quadrivalvis</i> , O. Ktz.	<i>A. ciliata</i> , Linn. f.
75. <i>T. laxa</i> , Stapf ex Haines	<i>A. laxa</i> , Anderss.
76. <i>T. tremula</i> , Hack.	<i>A. tremula</i> , Nees.
77. <i>T. cymbaria</i> , Hack.	<i>A. cymbaria</i> , Roxb.
78. <i>Apluda aristata</i> , Linn.	<i>Apluda varia</i> , Hack, sub sp. <i>aristata</i> , Hack.
79. <i>A. mutica</i> , Linn.	<i>A. varia</i> , Hack sub-sp. <i>mutica</i> Hack.

<i>Revised Names.</i>	<i>Old Names.</i>
80. <i>Eremopogon foveolatus</i> , Stapf.	<i>Andropogon foveolatus</i> , L.
81. <i>Schizachyrium brevifolium</i> , Nees.	<i>Schizachyrium brevifolius</i> , Sw.
82. <i>S. exile</i> , Stapf.	<i>A. exilis</i> , Hochst.
83. <i>Andropogon ascinodis</i> , C. B. Clarke.	<i>A. apricus</i> , Hook. f. non-Trin.
84. <i>Cymbopogon Nardus</i> , Rendle.	<i>A. Nardus</i> , Linn.
85. <i>C. flexuosus</i> , Wats.	<i>A. Nardus</i> , Linn. var. <i>flexuosus</i> , Hack.
86. <i>C. confertiflorus</i> , Stapf.	<i>A. Nardus</i> , Linn. var. <i>nilagiricus</i> , Hack.
87. <i>C. coloratus</i> Stapf.	<i>A. Nardus</i> , Linn. var. <i>coloratus</i> Hook f.
88. <i>C. Martini</i> , Wats.	<i>A. Schoenanthus</i> , Linn. var. <i>Martini</i> , Hook, f.
89. <i>C. caesius</i> Stapf.	<i>A. Schoenanthus</i> , Linn. var. <i>caesius</i> , Hack.
90. <i>C. polyneuros</i> , Stapf.	<i>A. Schoenanthus</i> , Linn. var. <i>versicolor</i> , Hack.
91. <i>C. Gidarba</i> , Haines.	<i>A. Gidarba</i> , Ham. ex. Hook, f.
92. <i>Hackelochloa granularis</i> , O. Ktz.	<i>Manisuris granularis</i> , Lian.
93. <i>Ophiuros exaltatus</i> , Ktz.	<i>Ophiuros corymbosus</i> , Gaertn.
94. <i>Manisuris Myurus</i> , Linn.	<i>Rottboellia Myurus</i> , Benth.
95. <i>M. acuminata</i> , C. E. C. Fischer, n. comb.	" <i>acuminata</i> , Hack.
96. <i>M. forficulata</i> , C. E. C. Fischer.	" <i>divergens</i> , Lisboa non— Hack.
97. <i>Mnesithea laevis</i> , Kunth.	" <i>perforata</i> , Roxb.
98. <i>Hemarthria compressa</i> , Kunth.	" <i>compressa</i> , Linn.
99. <i>Digitaria marginata</i> , Link.	<i>Digitaria sanguinalis</i> , Scop, var <i>ex-</i> <i>tensum</i> , Rang. et. Tad.
100. <i>D. marginata</i> , var. <i>fimbriata</i> , Stapf.	" <i>sanguinalis</i> , Scop, var. <i>ciliaris</i> Rang. et. Tad.
101. <i>D. Griffithii</i> , Stapf.	" <i>sanguinalis</i> , Scop. var. <i>Griffithi</i> , Rang. et. Tad.
102. <i>D. ternata</i> , Stapf.	<i>Paspalum ternatum</i> , Hook. f.
103. <i>D. longiflora</i> , Pers.	" <i>longiflorum</i> , Retz.
104. <i>D. chinensis</i> , Hornem.	" " Hook f. non— Retz.
105. <i>D. pedicellaris</i> , Prain.	" <i>pedicellare</i> , Trin.
106. <i>D. Royleana</i> , Prain.	" <i>Royleanum</i> , Nees.
107. <i>D. Wallichiana</i> , Stapf.	" <i>Perrottetii</i> , Hook.
108. <i>Alloteropsis cimicina</i> , Stapf.	<i>Axonopis cimnicus</i> , Beauv.
109. <i>Pseudechinolaena polystachya</i> , Stapf.	<i>Panicum uncinatum</i> , Raddi.
110. <i>Eriochloa procera</i> , C. E. Hubbard.	<i>Eriochloa polystachya</i> , H. B. et K.
111. <i>Brachiaria distachya</i> , Stapf.	<i>Panicum distachyum</i> , Linn.
112. <i>B. milliformis</i> , Chase,	" " Linn.
113. <i>B. mutica</i> , Stapf.	" <i>muticum</i> , Forsk.
114. <i>B. eruciformis</i> , Griseb.	" <i>Isachne</i> , Roth.
115. <i>B. ramosa</i> , Stapf.	" <i>ramosum</i> , Linn.
116. <i>B. semiundulata</i> , Stapf.	" <i>villosum</i> , Lamk.
117. <i>B. semiverticillata</i> , Alston.	<i>P. semiverticillatum</i> , Rottl.
118. <i>B. remota</i> , Haines.	<i>P. remotum</i> , Retz.
119. <i>B. Kurzii</i> , A. Camus.	" <i>Kurzii</i> , Hook. f.
120. <i>Paspalum orbiculare</i> , Forst.	<i>Paspalum scrobiculatum</i> , Linn.
121. <i>P. vaginatum</i> , SW.	" <i>distichum</i> , Linn.
122. <i>P. longifolium</i> , Rox.	" <i>scrobiculatum</i> , Linn.
123. <i>Stenotaphrum dimidiatum</i> , Brogn.	<i>Stenotaphrum glabrum</i> , Trin.

<i>Revised Names.</i>	<i>Old Names.</i>
124. <i>Paspalidium flavidum</i> , A. Camus.	<i>Panicum flavidum</i> , Retz.
125. <i>P. punctatum</i> , Stapf.	" <i>punctatum</i> , Burm.
126. <i>P. geminatum</i> , Stapf.	" <i>paspaloides</i> , Pers.
127. <i>Urochloa panicoides</i> , Beauv.	" <i>javanicum</i> , Hook.
128. <i>U. setigera</i> , Stapf.	" <i>setigerum</i> Retz.
129. <i>U. reptans</i> , Stapf.	" <i>prostratum</i> , Lamk.
130. <i>Echinochloa colona</i> , Link.	" <i>colona</i> , Linn.
131. <i>E. colona</i> , Link. var. <i>frumentaceum</i> .	" <i>Crusgalli</i> , Link. var. <i>frumentaceum</i> , Hook f.
132. <i>E. crusgalli</i> , Beauv.	" <i>Crusgalli</i> , Linn.
133. <i>E. stagnina</i> , Beauv.	" " Linn.
134. <i>Ottochloa nodosa</i> , Dandy.	" <i>nodosum</i> , Kunth.
135. <i>Holcolemma canaliculatum</i> , Stapf. et. Hubb.	" <i>canaliculatum</i> , Nees.
136. <i>Panicum oreades</i> , Domin.	" <i>aequiglume</i> , Hook f. Non. Hack.
137. <i>P. paludosum</i> , Roxb.	" <i>proliferum</i> , Hook, f. Non-Lamk.
138. <i>P. brevifolium</i> , Linn.	" <i>ovalifolium</i> , Poir.
139. <i>P. Gardneri</i> , Thw.	<i>Isachne Gardneri</i> , Benth.
140. <i>Hymenachne pseudo-interrupta</i> , C. Muell.	<i>Panicum Myurus</i> , H. B. K.
141. <i>Cyrtococcum trigonum</i> , A. Camus.	" <i>trigonum</i> , Retz.
142. <i>C. oxyphyllum</i> , Stapf.	" <i>pilipes</i> , Nees et. Arn.
143. <i>C. patens</i> , A. Camus.	" <i>patens</i> , Linn.
144. <i>C. radicans</i> , Stapf.	" " Linn.
145. <i>C. longipes</i> , A. Camus.	" <i>longipes</i> , W. et. A.
146. <i>C. sparsicomum</i> , A. Camus.	" <i>sparsicomum</i> , Nees.
147. <i>Saccolipsis interrupta</i> , Stapf.	" <i>interruptum</i> , Willd.
148. <i>S. indica</i> , Chase.	" <i>indicum</i> , Linn.
149. <i>S. myosuroides</i> A. Camus.	" <i>myosuroides</i> , R. Br.
150. <i>S. curvata</i> , Chase.	" <i>curvatum</i> , Linn.
151. <i>Setaria palmifolia</i> , Stapf.	" <i>plicatum</i> , Lamk.
152. <i>S. pallidifusca</i> Stapf. et. Hubb.	<i>Setaria glauca</i> , Beauv.
153. <i>Pseudoraphis aspera</i> , Pilger.	<i>Chamaeraphis spinescens</i> , Poir.
154. <i>Rhynchelytrum villosum</i> , Chiov.	<i>Tricholaena Wightii</i> , Nees.
155. <i>Pennisetum typhoides</i> , Stapf. et. Hubb.	<i>Pennisetum typhoideum</i> , Rich.
156. <i>Cenchrus ciliaris</i> , Linn.	" <i>cenchroides</i> Rich.
157. <i>C. ciliaris</i> , Linn. var. <i>echionoides</i> , Hook. f.	" " Rich. var. <i>echionoides</i> .
158. <i>C. setigerus</i> , Vahl.	<i>Cenchrus biflorus</i> , Roxb.
159. <i>C. barbatus</i> , Schum.	" <i>catharticus</i> , Del.
160. <i>Thysanolaena maxima</i> , O. Ktz	<i>Thysanolaena Agrostis</i> , Nees et Arn.
161. <i>Arundinella setosa</i> , Trin.	<i>Arundinella nervosa</i> , Nees.
162. <i>A. pumila</i> , Steud.	" <i>tenella</i> , Nees.
163. <i>A. holcoides</i> , Trin.	" <i>agrostoides</i> , Trin.
164. <i>A. nepalensis</i> , Trin.	" <i>brasiliensis</i> , Hook. f. non Raddi.
165. <i>A. mutica</i> , Nees.	" <i>capillars</i> , Hook. f.
166. <i>Avenastrum asperum</i> , C. E. C. Fischer, n. Comb.	<i>Avena aspera</i> , Munro.
167. <i>A. asperum</i> var. <i>schmidii</i> , C. E. C. Fischer, n. Comb.	" " " var. <i>schmidii</i> , Hook f.

<i>Revised Names.</i>	<i>Old Names:</i>
168. <i>Venastrum</i> var. <i>polyneuron</i> , C. E. C. Fischer n. Comb.	<i>Avena polyneura</i> , Hook. f.
169. <i>Coelachne</i> <i>perpusilla</i> , Thw.	<i>Coelachne pulchella</i> , R. Br. var. <i>gracillima</i> , Hook. f.
170. <i>Neyraudia</i> <i>arundinacea</i> , Henr.	<i>Neyraudia madagascariensis</i> , Hook. f.
171. <i>Aristida</i> <i>depressa</i> , Retz.	<i>Aristida adscencionis</i> , Linn.
172. <i>Agrostis</i> <i>stolonifera</i> , Linn.	<i>Agrostis alba</i> , Linn.
173. <i>A. pilosula</i> , Trin.	<i>Calamagrostis pilosula</i> , Hook. f.
174. <i>A. Schmidii</i> , C. E. C. Fischer n. Comb.	" <i>Schmidii</i> , Hook. f.
175. <i>Garnotia scoparia</i> , Stapf. ex. Hook. f.	<i>Garnotia tenuiglumis</i> , Stapf. ex. Hook. f.
176. <i>Trachys muricata</i> , Steud.	<i>Trachys mucronata</i> , Pers.
177. <i>Tragus biflorus</i> , Schult.	<i>Tragus racemosus</i> , Hook. f. non. All.
178. <i>Perotis indica</i> , O. Ktz.	<i>Perotis latifolia</i> , Ait.
179. <i>Zoysia matrella</i> , Merr.	<i>Zoysia pungens</i> , Willd.
180. <i>Demostachya bipinnata</i> , Stapf.	<i>Eragrostis cynosuroides</i> , Beauv.
181. <i>Eragrostis spicata</i> , Jedwabn.	<i>Eragrostis phleoides</i> , Stapf.
182. <i>E. riparia</i> , Nees.	" <i>tenella</i> , Roem. et. Sch. var. <i>riparia</i> , Stapf
183. <i>E. viscosa</i> , Trin.	" <i>tenella</i> var. <i>viscosa</i> , Stapf.
184. <i>E. plumosa</i> , Link.	" " var. <i>plumosa</i> Stapf.
185. <i>E. japonica</i> , Trin.	" <i>interrupta</i> , Beauv. var. <i>tenuissima</i> Stapf
186. <i>E. diarrhena</i> , Steud.	" " var. <i>diarrhena</i> , Stapf.
" var. <i>Koenigii</i> C. E. C. Fischer n. Comb.	" " var. <i>Koenigii</i> , Stapf.
187. <i>E. unioloides</i> , Nees.	" <i>amabilis</i> , W. et. A.
188. <i>E. gangetica</i> , Steud.	" <i>elegantula</i> , Steud.
189. <i>E. nutans</i> , Nees	" <i>stenophylla</i> , Hochst.
190. <i>E. cilianensis</i> , Link.	" <i>major</i> , Host.
191. <i>E. poaeoides</i> , Beauv.	" <i>minor</i> , Host.
192. <i>E. bifaria</i> , Wight ex. Steud.	" <i>coromandeliana</i> , Trin.
193. <i>Microchloa indica</i> , Beauv.	<i>Microchloa setacea</i> , R. Br.
194. <i>Melanocenchris monoica</i> , C. E. C. Fischer, n. Comb. non-O. Ktz.	<i>Gracilea mutans</i> , Koen.
195. <i>M. Royleana</i> , Nees.	<i>G. Royleana</i> , Hook.
196. <i>Enteropogon monostachyos</i> , K. Schum.	<i>Enteropogon melicoides</i> , Nees.
197. <i>Cynodon dactylon</i> , Pers. var. <i>intermedius</i> C. E. C. Fischer n. comb.	<i>Cynodon intermedius</i> , Rang et. Tad.
198. <i>Eleusine lagopoides</i> , Merr.	<i>Eleusine brevifolia</i> , R. Br.
199. <i>Dactyloctenium aegyptium</i> , Beauv.	<i>E. aegyptiaca</i> , Desf.
200. <i>Dinebra retroflexa</i> , Panz.	<i>Dinebra arabica</i> , Jacq.
201. <i>Enneapogon elegans</i> , Stapf.	<i>Pappophorum elegans</i> , Nees.
202. <i>Elytrophorus spicatus</i> , A. Camus.	<i>Elytrophorus articulatus</i> , Beauv.
203. <i>Aelurophus lagopoides</i> , Trin. ex. Thw.	<i>Aelurochus villosus</i> , Trin.
204. <i>Oryza Meyriana</i> , Baill.	<i>Oryza granulata</i> , Nees et. Arn.
205. <i>Anthoxanthum Hookeri</i> , Rendle.	<i>Hierochloa Hookeri</i> , C. B. Clarke Hook f.
206. <i>Vulpia Myuros</i> , Gmel.	<i>Festuca Myuros</i> , Linn.

<i>Revised Names.</i>	<i>Old Names.</i>
207. <i>Bromus catharticus</i> , Vahl.	<i>Bromus unioloides</i> , H. B. K.
208. <i>Streptogyna gerontogea</i> , Hook. f.	<i>Streptogyna crinata</i> , Thw.
209. <i>Triticum dicoccum</i> , Schrank.	<i>Triticum vulgare</i> , Vill. F. B. I. VII. 367.
210. <i>Hordeum hexastichon</i> , Linn.	<i>Hordeum vulgare</i> , Linn. var. <i>hexastichon</i> , Ait.
211. <i>Teinostachyum Beddomei</i> , C. E. C. Fischer, n. nom.	<i>Teinostachyum Wightii</i> , Bedd.
212. <i>Oxytenanthera monadelphæ</i> , Alstom.	<i>Oxytenanthera Thwaitesii</i> , Munro.
213. <i>Ochlandra scriptoria</i> , C. E. C. Fischer n. Comb.	<i>Ochlandra Rheedii</i> , Gamble.
214. <i>O. Wightii</i> , C. E. C. Fischer, n. Comb.	" <i>Brandisii</i> , Gamble.

### **Groundnut Oil-cake as Manure and Cattlefeed.\***

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The international situation brought about by the present war has, among other things, affected the export trade of most of the countries of the world due to the closure of foreign markets resulting in an upset of agricultural economy. The situation is particularly embarrassing to a country like India which is essentially a producer of raw materials entirely dependent upon other countries for the disposal of most of its agricultural produce. Of the many such products produced in the country on a large scale and marketed elsewhere groundnut figures prominently.

In spite of the offer of the United Kingdom to purchase all its requirements of oil seeds from India and attempts being made to explore new markets, the total production of groundnut in this country is bound to leave a surplus for which use has to be found. Restriction in area can be done only to a certain extent, for groundnut is a crop that is easily raised in the poor dry lands of the Province with little investment or care and is one of the few attractive crops for the dryland farmer. It becomes, therefore, necessary to absorb this anticipated excess production in the country itself by developing the Indian oil-seed crushing industry on a sound and planned basis and utilizing the oil and the residual cake (*poonac*).

1. **Grades of groundnut poonac.** There are two grades of groundnut *poonac* recognised in trade and available in Madras. The one is the "expeller" quality and the other the "chekku" quality. The former is the residual matter left after the extraction of oil from the kernels, in power-driven oil mills or hand presses, while the latter is the residual cake left after the extraction of oil in the indigenous wooden *chekku* or *ghanni*. *Chekku* cake generally contains a little more of oil due to incomplete extraction and is consequently valued slightly higher than the expeller quality.

\* Contribution No. 17 from the Oil Seeds Section of the Madras Department of Agriculture.