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## INDEX TO AMERICAN BOTANICAL LITERATURE 1920-1922

The aim of this Index is to include all current botanical literature written by Americans, published in America, or based upon American material; the word America being used in the broadest sense.

Reviews, and papers that relate exclusively to forestry, agriculture, horticulture, manufactured products of vegetable origin, or laboratory methods are not included, and no attempt is made to index the literature of bacteriology. An occasional exception is made in favor of some paper appearing in an American periodical which is devoted wholly to botany. Reprints are not mentioned unless they differ from the original in some important particular. If users of the Index will call the attention of the editor to errors or omissions, their kindness will be appreciated.

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**Anderson, R. J., & Kulp, W. L.** Analysis and composition of corn pollen. *Jour. Biol. Chem.* **50**: 433-453. F 1922.

**Anderson, P. J.** Development and pathogenesis of the onion smut fungus. *Massachusetts Agr. Exp. Sta.* **4**: 99-133. f. 1-3. N 1921.

**Andrews, A. L.** Further bryophytes from North Carolina (and Tennessee). *Bryologist* **24**: 49-58. 9 Ja 1921.

**Andrews, A. L.** Notes on North American *Sphagnum*, IX. *Bryologist* **24**: 81-86. 27 F 1922.

**Armstrong, G. M.** Studies in the physiology of the fungi. XIV. Sulphur nutrition: the use of thiosulphate as influenced by hydrogen-ion concentration. *Ann. Missouri Bot. Gard.* **8**: 237-281. f. 1-27. S 1921.

**Arndt, C. H.** The growth of field corn as affected by iron and aluminum salts. *Am. Jour. Bot* **9**: 47-71. pl. 4 + f. 1-6. 20 Mr 1922.

**Arthur, J. C.** Uredinales collected by Fred J. Seaver in Trinidad. *Mycologia* **14**: 12-24. 6 Mr 1922.  
Includes 5 new species.

- Arthur, J. C.** Uredinales collected by R. Thaxter and J. B. Rorer in Trinidad. *Bot. Gaz.* **73**: 58-69. *f. 1-4.* 18 Ja 1922.
- Ashe, W. W.** The eastern shrubby species of *Robinia*. *Jour. Elisha Mitchell Sci. Soc.* **37**: 175-177. Mr 1922.  
*R. grandiflora* sp. nov.
- Ashe, W. W.** Forest types of the Appalachians and White Mountains. *Jour. Elisha Mitchell Sci. Soc.* **37**: 183-198. Mr 1922.
- Avten, J. T.** The organic phosphorus content of some Iowa soils. *Soil Sci.* **13**: 119-124. F 1922.
- Awschalom, M.** Datos sobre la influencia del selenio en la vegetación cuando sustituye al ion sulfurico en el líquido nutritivo de Knop. *Revista. Facult. Agron.* **14**: 122-162. 1921.
- Baas-Becking, L. G. M.** The origin of the vascular structure in the genus *Botrychium*; with notes on the general anatomy. *Rec. Trav. Bot. Neerlandais* **18**: 333-372. *pl. 5, 6 + f. 1-49.* 1921.
- Bailey, J. W.** Adventures in mossland.—A hunt for *Desmatodon latifolius* (Hedw.) Brid. *Bryologist* **24**: 86-88. 27 F 1922.
- Bailey, L. W.** Diatoms from the Quill Lakes, Saskatchewan, and from Airchie, Alberta. *Contr. Canadian Biol.* **11**: 157-165. *pl. 1, 2.* 1921.
- Barker, E. E.** The architecture of the coco palm. *Nature-study Rev.* **18**: 44-50. *f. 1-4.* Ja-F 1922.
- Benoist, R.** Contribution à l'étude de la flore des Guyanes. *Bull. Soc. Bot. France* **68**: 311-323. 2 Au 1921.
- Berry, E. W.** Additional occurrences of Pleistocene plants. *Torreya* **22**: 10, 11. F 1922.
- Berry, E. W.** Carboniferous plants from Peru. *Am. Jour. Sci.* **203**: 189-194. Mr 1922.
- Berry, E. W.** The flora of the Woodbine sand at Arthur's Bluff, Texas. *U. S. Geol. Survey* **129**: 153-180. *pl. 36-40 + f. II.* 23 Mr. 1922.  
Includes *Trochodendroides*, gen. nov.

- Birge, E. A., & Juday, C.** Further limnological observations on the Finger Lakes of New York. Bull U. S. Bur. Fisheries 37: 209-252. 1922.  
Includes notes on phytoplankton.
- Blake, S. F.** New Plants from Guatemala and Honduras. Contrib. U. S. Nat. Herb. 24: 1-32. pl. 1-10 + f. 1-4. 1922.  
Includes 46 new species.
- Blake, S. F., & Sprague, T. A.** On the generic name *Wikstroemia*. Jour. Bot. 60: 52-54. F 1922.
- Blakeslee, A. F.** Variations in *Datura* due to changes in chromosome number. Am. Nat. 56: 16-31. f. 1-7. F 1922.
- Blomquist, H. L.** Vascular anatomy of *Angiopteris evecta*. Bot. Gaz. 73: 181-199. pl. 5-8 + f. 1-8. M 1922.
- Botto, A.** Una nueva forrajera para las regiones del norte.—El pasto de Rhodes. Revista Facult. Agron. 14: 170-178. f. 1-3. 1921.  
(*Chloris Gayana* Kunth.)
- Bouyoucos, G.** A study of the fertility of the soils of Greece. Soil Sci. 13: 63-79. F 1922.
- Brand, A.** Boraginaceae-Borraginoideae Cynoglosseae. Pflanzenreich IV. 252: 1-183. f. 1-22. 22 N 1921.
- Broadway, W. E.** Botanical collecting in French Guiana. Jour. New York Bot. Gard. 22: 177-183. O 1921.
- Burns, G. P.** Eccentric growth and the formation of redwood in the main stem of conifers. Vermont Agr. Exp. Sta. Bull. 219: 1-16. pl. 1-4 + f. 1-10. Je 1920.
- Butler, E. J.** Phytopathology in the United States. Kew Bull. Misc. Inform. 1922: 85-91. 1922.
- Canela, P. F.** Sobre la presencia de una plaga en los frutales en San Luis. Bol. Minis. Agric. de la Nacion 26: 253-256. 1921.
- Cannon, W. A.** Plant habits and habitats in the arid portions of South Australia. Carnegie Inst. Washington Publ. 308: 1-139. pl. 1-32 + f. 1-31. 1921.

- Caverhill, P. C.** Forestry problems in British Columbia. *Jour. For.* 20: 44-53. Ja 1922.
- Chardon, C. E.** Contribution to our knowledge of the Pyrenomyctes of Porto Rico. *Mycologia* 13: 279-300. *pl. 13-15 + f. 1-4.* 21 Ja 1922.  
Includes 9 spp. nov. and 1 comb. nov.
- Churchill, J. R.** *Cimicifuga racemosa* in Massachusetts. *Rhodora* 23: 201-203. 9 Ja 1922.
- Clements, F. E.** Aeration and air-content. The role of oxygen in root activity. *Carnegie Inst. Washington Publ.* 315: 1-183. 1921.
- Clokey, I. W.** *Carex* notes. *Am. Jour. Sci.* 3: 88-91. *pl. 2.* Ja 1922.  
Includes *Carex apoda* and *C. Paysonis*, spp. nov.
- Coates, L.** The "peach-almond" hybrid. *Jour. Hered.* 12: 328, 329. 20 F 1922. [Illust.]
- Cocks, R. S.** A list of the trees of Louisiana. *Jour. Arnold Arbor.* 2: 204-216. Ja 1922.
- Cockerell, T. D. A.** Flora of Porto Santo. *Torreya* 22: 4-10. *f. 1, 2* F 1922.
- Coker, W. C., & Grant, F. A.** A new genus of water mold related to *Blastocladia*. *Jour. Elisha Mitchell Sci. Soc.* 37: 180-182. *pl. 32.* Mr 1922.  
*Septocladia* gen. nov. and *S. dichotoma* sp. nov.
- Collins, G. N.** Teosinte in Mexico. *Jour. Hered.* 12: 339-350. *f. 1-7.* O 1921.
- Conti, M.** El campo experimental de hidrologia agricola. *Revista Facult. Agron.* 14: 97-121. 1921. [Illust.]
- Cooper, W. S.** The ecological life history of certain species of *Ribes* and its application to the control of the white pine blister rust. *Ecology* 3: 7-16. *f. 1-3.* 25 F 1921.
- Cundall, F., & Fawcett, W.** Dr. Anthony Robinson of Jamaica. *Jour. Bot.* 60: 49-52. F 1922.
- Davis, B. M.** Species, pure and impure. *Science II.* 55: 107-114. 3 F 1922.

- Demerec, M.** Heritable characters of maize. X. Zebra striped leaves. *Jour. Hered.* **20:** 406, 407. *f.* 12. N 1921.
- Denison, I. A.** The nature of certain aluminum salts in the soil and their influence on ammonification and nitrification. *Soil Sci.* **13:** 81-106. F 1922.
- Denny, F. E.** Formulas for calculating number of fruits required for adequate sample for analysis. *Bot. Gaz.* **73:** 44-57. 18 Ja 1922.
- Detwiler, S. B.** Blister rust appears in the Puget Sound region. *Am. For.* **28:** 97, 98. F 1922.
- Dietel, P.** Zur Umgrenzung der Gattung *Pileolaria* Cast. *Ann. Mycol.* **19:** 300-303. 1921.
- Dodge, C. K.** Miscellaneous papers on the botany of Michigan. *Michigan Geol. & Biol. Surv.* **31:** 15-234. 1921.  
Plant lists of various sections of state. Includes biography, portrait and map.
- Dunbar, J.** How to grow rhododendrons. *Jour. New York Bot. Gard.* **22:** 184-190. O 1921.
- Durand, E. J.** The genus *Catinella*. *Bull. Torrey Club* **49:** 15-21. 21 Mr 1922.
- Dwight, T. W.** Timber administration of the Dominion Forest Service. *Jour. Forestry* **20:** 4-9. Ja 1922.
- Elliott, C.** Sterility of oats. *U. S. Dept. Agr. Bull.* **1058:** 1-8. *pl. 1-4.* 6 Mr 1922.
- Emerson, R. A.** The nature of bud variations as indicated by their mode of inheritance. *Am. Nat.* **56:** 64-79. F 1922.
- Emerson, R. A., & Hutchinson, C. B.** The relative frequency of crossing over in microspore and in megasporangium development in maize. *Genetics* **6:** 417-432. S 1921.
- Eriksson, I.** The life of *Puccinia Malvacearum* Mont. within the host plant and on its surface. *Phytopathology* **11:** 459-463. 25 F 1922.
- Ezekiel, W. N.** Some factors affecting the production of apothecia of *Sclerotinia cinerea*. *Phytopathology* **11:** 495-499. 21 Mr 1922.

- Faris, J. A.** Violet root tip (*Rhizoctonia crocorum* DC.) in the United States. *Phytopathology* 11: 412-423. 16 F 1922.
- Farr, C. A.** Quadripartition by furrowing in *Sisyrinchium*. *Bull. Torrey Club* 49: 51-61. *pl. 2.* Mr 1922.
- Farwell, O. A.** Corrections in botanical nomenclature. *Am. Midl. Nat.* 8: 33-35. Ja 1922.  
Includes new combinations under *Dilepyrum* (1) and *Gardenia* (3).
- Faull, J. H.** Some problems of forest pathology in Ontario. Needle blight of white pine. *Jour. For.* 20: 67-70. Ja 1922.
- Fernald, M. L.** The Gray Herbarium expedition to Nova Scotia. *Rhodora* 23: 89-111. *pl. 130.* 19 My 1921; 23: 130-152. 26 Au 1921; 23: 153-171. 24 O 1921; 23: 184-195. 15 D 1921; 23: 223-245. 26 Ja 1922; 23: 257-278. *pl. 133.* 27 F 1922; 23: 284-300. 22 Ap 1922.  
Includes new species in *Lophiola* (1) and *Antennaria* (1), 12 new varieties and 2 new forms.
- Fink, B.** An addition to the distribution of a rare fungus. *Mycologia* 14: 49, 50. 6 Mr 1922.  
*Tylostema verrucosum* in Ohio.
- Fitzpatrick, H. M., Thomas, H. E., & Kirby, R. S.** The *Ophiobolus* causing take-all of wheat. *Mycologia* 14: 30-37. *pl. 10 + f. 1.* 6 Mr 1922.
- Fromme, F. D.** Incidence of loose smut in wheat varieties. *Phytopathology* 11: 507-510. 21 Mr 1922.
- Gail, F. W.** Factors controlling distribution of Douglas fir in semi-arid regions of the Northwest. *Ecology* 2: 281-291. *f. 1-3.* 20 Ja 1922.
- Gaudron, J.** El peso de las raíces del *Manihot utilissima* en relación con la fasciación de los tallos. *Arch. Asoc. Peru* 1: 20-37. *pl. 1, 2.* 1921.
- Gericke, W. F.** Certain relations between the protein content of wheat and the length of the growing period of the head-bearing stalks. *Soil Sci.* 13: 135-138. F 1922.
- Gerould, J. H.** The dawn of the cell theory. *Sci. Monthly* 14: 268-277. Mr 1922.

- Girola, C. D.** Agallas de corona del duraznero. Bol. Minis. Agric. **26**: 257-259. *pl. 1, 2* (1 colored). Jl-S 1921.  
*Pseudomonas tumefaciens*.
- Girola, C. D.** Cultivo de la Yerba mate Torrefacion y preparacion del producto. Bol. Minis Agric. **26**: 447-488. *f. 1-23*. O-D 1921.
- Girola, C. D.** Sobre algunas enfermedades de la papa. Bol. Minis. Agric. **26**: 260-264. *pl. 1, 2*. Jl-S 1921.
- Gleason, H. A..** The witch-hazels. Jour. New York Bot. Gard. **23**: 17-19. F 1922.
- Goebel, K.** Erdwurzeln mit Velamen. Flora **115**: 1-26. *f. 1, 2*. 1922.
- Graff, P. W.** Philippine Basidiomycetes—IV. Bull. Torrey Club **48**: 285-295. 19 Ja 1922.
- Gress, E. M.** Annotated list of fossil plants of the Dakota formation (Cretaceous) in the collections at the Carnegie Museum. Ann. Carnegie Mus. **13**: 274-332. *pl. 14, 15*. 1921.  
Includes 3 spp. nov.
- Greaves, J. E.** Influence of salts on bacterial activities of soil. Bot. Gaz. **73**: 161-180. Mr 1922
- Greenman, J. M.** Two new senecios from the West Indies. Ann. Missouri Bot. Gard. **8**: 97-102. *pl. 1-2*. 9 Ja 1922.  
Includes *S. subsquarrosus* and *S. Freemanii*, spp. nov.
- Grout, A. J.** Mosses of a Staten Island house and lot. Bryologist **24**: 64. 9 Ja 1922.
- Guilliermond, M. A.** Nouvelles observations sur l'origine des plastides dans les phanérogames. Rev. Gén. Bot. **33**: 401-419, 449-466. *f. 1-8*. 1921.
- Haasis, F. W.** Relations between soil-type and root form of western yellow pine seedlings. Ecology **2**: 292-303. *f. 1-3*. 20 Ja 1922.
- Hall, H. M., & Long, F. L.** Rubber content of North American plants. Carnegie Inst. Washington Publ. **313**: 1-65. *pl. 1-3*. 1921.

- Hallermeier, M.** Ist das Hangen der Blüten eine Schutzeinrichtung? *Flora* **115**: 75-101. 1922.
- Harms, H.** Über einige *Carica*-arten aus Südamerika mit besondere Berücksichtigung der peruanischen Arten. *Notizbl. Bot. Gart. u. Mus. Berlin-Dahlem* **8**: 91-100. 1 Ap 1922.  
Includes 4 spp. nov.
- Harper, R. M.** A botanical bonanza in Tuscaloosa County, Alabama. *Jour. Elisha Mitchell Sci. Soc.* **37**: 153-160. *pl. 28.* Mr 1922.
- Harper, R. M.** Geography of central Florida. *Florida Geol. Surv. Ann. Rep.* **13**: 71-307. *f. 1-43.* 1921.
- Harshberger, J. W.** Geographic names and terms of significance in plant geology and ecology. *Bull. Geog. Soc. Philadelphia* **20**: 32-46. Ja 1922.
- Harvey, L. H.** Yellow-white pine formation at Little Manister, Michigan. *Bot. Gaz.* **73**: 26-43. *f. 1-6.* 18 Ja 1922.
- Haskell, R. J.** *Phytophthora infestans* on egg plant in the United States. *Phytopathology* **11**: 504, 505. 21 Mr 1922.
- Hayes, H. K., & Stakman, E. C.** Resistance of barley to *Helminthosporium sativum* P. K. B. *Phytopathology* **11**: 405-411. 16 F 1922.
- Heller, H. H.** Certain genera of the Clostridiaceae. *Jour. Bact.* **7**: 1-38. Ja 1922.  
Includes 25 new genera.
- Hibbard, P. L.** Some experiments on reclamation of infertile alkali soils by means of gypsum and other treatments. *Soil Sci.* **13**: 125-134. F 1922.
- Higgins, B. B.** Notes on the morphology and systematic relationship of *Sclerotium Rolfsii* Sacc. *Jour. Elisha Mitchell Sci. Soc.* **37**: 167-172. *pl. 29.* Mr 1922.
- Hoerner, G. R.** Infection capabilities of crown rust of oats. *Phytopathology* **12**: 4-15. 10 Mr 1922.
- Hollick, A.** Local flora notes—Staten Island. *Torreya* **22**: 1-3. Ja-F 1922.