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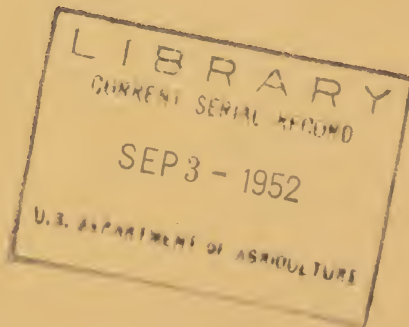
Washington, D. C.

Issued May 1952

THE FORESTS OF CONTINENTAL LATIN AMERICA
(Including European Possessions)

A Bibliography of Selected Literature, 1920-1950

Compiled by
Frances J. Flick
Division of Bibliography, Library



United States
Government Printing Office
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PREFACE

This bibliography is the result of a selective examination of book and periodical literature published between 1920 and 1950, on the forests of Mexico, Central America, and South America. It is a guide to background information for anyone interested in the standing timber resource and its utilization, in these lands below our Mexican border.

The listing of references is subdivided by country. British Honduras and the Guianas are included on the basis of their place in the continental economy, even though they are not Latin-American in a political sense. Due to the large number of entries collected under the General heading, and for Argentina, Brazil, and Mexico, these four divisions again are subdivided, segregating references on vegetation and timber description from forest policy and forest industry material.

A short list of periodicals publishing Latin-American forestry information follows the main body of the bibliography. This, in turn, is followed by the index, a subject guide to general and geographic sections. A user of this index will not find the terms Forests and Forestry used, because it is assumed that these terms overlay almost every item in the index. He will find, however, such headings as Resources, Policies, Forest Types, Maps, botanical names of timber trees, and common names of forest products. Within this last category, the bibliographic scope includes the major products: timber, lumber, plywood, crossties, pulpwood, fuelwood, naval stores, tannin sources, chicle, and balata. Omitted are commodities like Hevea rubber, cinchona, and palm products, each of which occupies a major domain for separate bibliographic exploration. Likewise omitted, or included only incidentally, are references on taxonomic botany, wood technology, forest legislation, commodity production statistics, and trade statistics.

Most of the references are in English, Spanish, or Portuguese, with a sprinkling of German, French, Dutch, and other languages. Standards of usage and accenting may vary within our entries, just as they do in the countries where the written literature originates. S. J. Record and R. W. Hess' *Timbers of the New World* (1943) served as a standard of botanical nomenclature for the particular trees and timbers covered by this bibliography.

Over 4,000 references were examined in the course of compilation, most of which are housed in the U. S. Department of Agriculture Library. Call numbers following citations refer to this collection. In those cases where another library's collection was used, a designation like Libr. Cong. or Pan Amer. Union Libr. follows the citation. The symbol FS stands for U. S. Forest Service files.

The U. S. Forest Service Division of Forest Economics, Foreign Forestry Section, headed by A. C. Cline, has been an active collaborator in this bibliography. Particular thanks are due Karl R. Mayer of that office, who bore the major burden of revision.

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GENERAL

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3. AMERICAN GEOGRAPHICAL SOCIETY. A catalog of maps of Hispanic America. New York, 1930-32. 4 v. 241.91 Am3

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7. BEEKMAN, W. B. Hout in alle tijden, 3. Bossen, bomen en hout van thans; de voornaamste bostypen en houtsoorten der wereld. Deventer, Kluwer, 1950? 800 p. Ref. Map. 99.79 B39

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8. BENNETT, H. H. Soil conservation in Latin America. In Plants and Plant Science in Latin America, p.165-169. Waltham, Mass., Chron. Bot.,1945. 453 V58

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Recommendations for utilization and conservation.

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Appendices include memoranda and resolutions.

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A chart facing p. 6 estimates the resource by country, and by broad-leaf, coniferous, and mixed forest.

69. THE LATIN-American Conference on Forestry and Forest Products. Unasylya 2:94-137. May/June 1948. 99.8 Un1

Conference attempted to lay foundations for a common Latin-American forest policy. This report summarizes activities and resolutions, and gives some of the working papers. A table, p.111, gives estimates of the forest resource for each country. Main divisions of the text are: Forest resources; Exploitation of forest resources; Production and marketing of new wood species; Integration of forest industries; Organization of forest services; Training of personnel; The forest inventory; Forest legislation.

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80. METHODS of handling American lumber imports in South America. U. S. Dept. Com. Trade Inform. B. 107,35 p. June 11,1923. 99.76 Un33M

Marketing and trade information given by country and by marketing centers within Argentina, Uruguay, Paraguay, Brazil, British Guiana, Venezuela, Colombia, Chile, Peru, Bolivia, and Ecuador.

81. MEYER, H. A. "Conqueros"—forest destroyers of the Andes. Amer. Forests 51:178-179,200. Apr.1945. 99.8 F762

Emphasizes the place of patch farming systems in the devastation of Latin America's forests, using Venezuelan conditions as an illustration.

82. NATIONAL situations. Unasylya 2:33-43. Jan./Feb.1948. 99.8 Un1

Brief surveys of forest types, resources when known, industry and policy, problems and activities, by countries for Latin America. These condensations were prepared as background to the Teresopolis conference.

83. ORGANIZATION FOR EUROPEAN ECONOMIC COOPERATION. Possibilities of increasing the use of tropical timber. Paris, 1950? 95 p. Maps. 99.76 Or33

Includes trade possibilities of colonial timbers from British and French Guiana, British Honduras, and Surinam. Contents: 1, Timber sources; 2, Export and consumption possibilities; 3, Exploitation; 4, Conditioning; 5, Marketing; 6, Propaganda; 7, Freight rates, new methods of transport; 8, Export and import duties; 9, Relations with the dollar area; 10, Effects of devaluation and liberalisation of trade; 11, International tropical timber technical associations; 12, Comparison between tropical timber and European and American timber; 13, Technical assistance; 14, Summary. Annex A, Provisional indicative list of tropical species classified by categories. Annex B, Export and import duties on tropical timbers in certain countries.

84. ORTEGA, M. El comercio americano de maderas. Montevideo, Conf. Amer. de Asoc. de Com. y Prod., 1941. 29 p. Map. Pan Amer. Union Libr.

Contents: American forest resources; forested areas; a commercial summary, timbers and forest products; some problems: forest reserves, crisis in pine, crisis in quebracho; conclusion.

85. PAN AMERICAN cooperation in forestry conservation. Pan Amer. Union B. 59:161-162. Feb. 1925. 150.9 M76

86. PAN AMERICAN UNION. DIV. OF AGRICULTURAL COOPERATION. Flora and national parks [of Latin American republics]. Documentary material on nature protection and wild life preservation in Latin America 2, 2 pts. 1940. 150.91 D65

Information on parks and forest reservations, legislation, utilization, and forest tree species. Pt. 1 includes Argentina, Colombia, Ecuador, Guatemala, Mexico, and Panama; pt. 2, Brazil, El Salvador, Nicaragua.

87. DIE PAPIERINDUSTRIE in Südamerika. Wochbl. f. Papierfabrik. 62:730-732. July 25, 1931. 302.8 W81

88. PARKER, L. H. Importancia de los bosques sudamericanos en la producción mundial de maderas. Montes 29:423-428. Ref. Sept./Oct. 1949. 99.8 M763

Briefly notes the resource, when known, the chief commercial species, and their utilization in Brazil, Uruguay, Chile, and Argentina, with some mention of other South American forests.

89. PETERSON, L. E. Forest products from Latin America. J. Forestry 45:423-427. June 1947. 99.8 F768

Deterrents to economic exploitation. Comment, stressing land utilization problems, by W. Vogt, 45:686-687. Sept. 1947.

90. PLATT, R. R., and others. The European possessions in the Caribbean area; a compilation of facts concerning their population, physical geography, resources, industries, trade, government, and strategic importance. New York, Amer. Geog. Soc., 1941. 112 p. Ref. (American Geographical Society, Map of Hispanic America Publication 4) 280 P692

J. K. Wright, J. C. Weaver, and J. E. Fairchild, joint authors.

91. *PLATT, R. S. Latin America. New York, Whittlesey, 1942. 564 p. Illus. 278.16 P69

92. QUEVEDO, M. A. DE La convenciencia de una acción conjunta panamericana para la conservación de los recursos forestales del continente. Méx. Forest. 3:61-64. May 1925. 99.8 M57

93. RANGHEL GALINDO, A. Cultivos e industrias forestales y su adaptación en la post-guerra. Agr. Trop. 1(9):39-44. Oct. 1945. 26 Ag8

Includes tanning material and wood.

94. RECOMMENDATIONS of the Soil, Water and Forest Conservation Committee of the fourth meeting of the Anglo-American Caribbean Commission. Carib. Forester 5:78-83. Jan.1944. 1.9622 T2C23

95. RECORD, S. J. Factors in the utilization of Latin American timbers. J. Forestry 40:165-168. Feb.1942. 99.8 F768

96. RECORD, S. J. El futuro de los bosques de América tropical Hacienda [Buffalo, N. Y.] 16(13):405-409. Illus. Oct.1921. 6 H11

97. RECORD, S. J. Some phases of the tropical timber business. N. Y. Lumber Trade J. 81(962):50,82,84. July 1926. 99.81 N48

98. RECORD, S. J., and MELL, C. D. Timbers of tropical America. New Haven, Yale U. Press,1924. 610 p. Illus. 99.79 R24T

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99. RECORD, S. J. The tropical timber business. Hardwood Rec. 51(1):22-28. Apr.25,1921. 99.81 H225

100. RECORD, S. J. Utilization of Latin American forests. Trop. Woods 70:15-19. June 1942. 99.08 Y1Tr

With title, The woods of Latin America, In Amer. Forests 48:416-417. Sept.1942. 99.8 F762

An abridgement of his Factors in the utilization of Latin American timbers, item 95.

101. SCHMITT, J. J. Outlook for Latin-American forest resources. N. Y. State Col. Forestry, State Ranger Sch. Alumni News 1940:7-19. Illus. 99.9 N487

Chiefly trade and commerce information. Lists factors that have contributed to excessive costs of logging and marketing Latin American forest products.

102. SCHURZ, W. L. Latin America, a descriptive survey. Rev. ed. New York, Dutton,1949. 386 p. 280.16 Sch8

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103. SCHURZ, W. L., and others. Rubber production in the Amazon valley. U. S. Bur. Foreign & Dom. Com. Trade Prom. Ser.23,369 p. Ref. Illus. Maps. 1925. 157.54 T67

O. D. Hargis, C. F. Marbur, and C. B. Manifold, joint authors.

In addition to information of interest to the rubber industry, contains discussions of transportation, climate, and general forest conditions. The second section of the report deals with nine regions, including maps of river systems and towns. Notes on tree species give vernacular and scientific names, and discuss wood utilization. Covers Peruvian, Bolivian, Ecuadorian, and Colombian Amazonia as well as Brazilian areas.

104. SEDLAK, J. C. La riqueza forestal de América del Sud. Maderil 13(155):11. May 1941. 99.82 M26

Includes a tabular estimate of forest areas within South American countries.

105. SHIRLEY, H. L. Obstacles to sustained-yield forestry. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc.1948: 564-571. Ref. 150 In82 No.4

Obstacles to sustained-yield forestry in the Americas, p.566.

106. THE SOUTH American handbook, 1950. Ed.27. London, Trade & Travel,1950. 766 p. 255 So82

107. SPARHAWK, W. N. Why the United States is interested in Latin American forest development. Pan Amer. Union B. 59:552-558. Illus. June 1925. 150.9 M76

Stresses the need for knowledge of Latin America's forest resource.

108. TIMBER and timber products, including paper making materials. London, Benn,1924. 228 p. (Federation of British Industries, Resources of the Empire Series v.2.) 256 F31 v.2

S. J. Duly, ed. British Honduras, p.142-146; British Guiana, p.152-156.

Other volumes in the series contain information about balata in British Guiana and chicle in British Honduras.

109. TIMBER of Latin America; prospects for development. Timberman 45(2):12-13,50,52. Dec.1943. 99.81 T484

110. TOMEO, M. Las resinas. Buenos Aires, Salvat Ed.,1939. 527 p. Illus. Maps. 309 T59

Includes gums and resins of Latin America; plants producing the resins, geographic aspects of production, and technology. Classified tables by producing countries, by product, and by botanical families, p.65-67.

111. TORTORELLI, L. A. Resoluciones forestales de la III^a Conferencia Interamericana de Agricultura reunida en Carácas. Argentina. Dir. Forest. P. Tec. 6,12 p. 1946. 99.9 Ar3

Resolutions relating to forestry, passed at the Third Inter-American Agriculture Conference.

112. U. S. BUR. OF FOREIGN AND DOMESTIC COMMERCE. Methods of handling American lumber in Mexico, Central America and the West Indies. Washington,1931. 40 p. 157.55 M56M

Information supplied by U. S. Dept. of State and U. S. Dept. of Commerce representatives. Gives marketing locations and transportation information for Mexico (by State), Guatemala, British Honduras, Honduras, El Salvador, Nicaragua, Costa Rica, and Panama. Indicates some local supply and consumption patterns.

113. U. S. OFF. OF THE COORDINATOR OF INTER-AMERICAN AFFAIRS. Future forest vistas in American republics. Foreign Com. Wk. 13(12):11,29-31. Dec.18,1943. 157.54 F763

114. U. S. TARIFF COMMISSION. The foreign trade of Latin America. Washington,1940. 3 v. & sup. 173 T17Fo

Pt.2 consists of 20 separate publications on Latin American countries, each with a brief section on natural resources and industries. Pt. 3, Selected Latin American export commodities, includes resource and exploitation aspects of (Sec.1) chicle, p.67-78; (Sec.2) woods, p.493-508.

Rev. ed. in 3 v.,1942. U. S. Tariff Comn. Rpt. 146. 173 T17Rs

115. UPSON, A., and WADSWORTH, F. H. The development of forest land management in tropical America. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948:582-588. 150 In82 No.4

Applies discussion to tropical America in general, chiefly from experience in Puerto Rico.

116. VANDER LAAN, J. W. Production of gutta-percha, balata, chicle and allied gums. U. S. Bur. Foreign & Dom. Com. Trade Prom. Ser. 41,72 p. Ref. 1927. 157.54 T67

117. VERDOORN, F., ed. Plants and plant science in Latin America. Waltham, Mass., Chron. Bot.,1945. 383 p. Ref. Illus. Maps. 453 V58

Consists of a collection of articles by specialists on vegetation and plant science. General survey of forests and wooded regions, p.14-15. Trees as economic plants, p.32. Includes also climate, soils, and geology.

118. VOGT, W. El hombre y la tierra. Caracas, Venezuela, Ministerio de Agricultura y Cría, Dirección Forestal,1948. 142 p. 279.169 V86

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119. VOGT, W. Latin-American timber, Ltd. Unasyuva 2:19-26. Jan./Feb.1948. 99.8 Un1

Reviews forest conditions (chiefly in northern South America and Central America) from the viewpoint of faulty land policies.

120. VOGT, W. Los recursos forestales de la América latina. Maderil 21(10):23-25; (11):23-26; (12):21-24. Apr.-June 1949. 99.82 M26

The forest resource and land conditions in Latin America.

121. WHITFORD, H. N. The conservative utilization of tropical forests. Pan Amer. Union B. 59:906-913. Sept.1925. 150.9 M76

Discusses developments needed before Latin American hardwoods can take their place in world markets.

122. WHITFORD, H. N. Tropical American woods for markets of the United States. Pan Amer. Union B. 52:567-587. Illus. June 1921. 150.9 M76

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123. WYTHE, G. Industry in Latin America. Ed.2. New York, Columbia U. Press,1949. 387 p. Libr. Cong.

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124. WYTHE, G. An outline of Latin American economic development. New York, Barnes & Noble,1946. 266 p. Refs. Maps. (College Outline Series) 280.16 W990

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125. ZON, R., and SPARHAWK, W. N. Forest resources of the world. New York, McGraw-Hill,1923. 2 v. Ref. Maps. 99.1 Z7

V.2, Ch.5, Forest situation in Central America, Mexico and the West Indies; Ch.6, Forest situation in South America.

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126. ACOSTA SOLIS, M. El quishuar ... *Buddleia incana* H.B.K. ... Flora [Quito] 3:119-125. Dec.1943. 450 F662

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127. Balsa (*Ochroma* spp.). Forestry Abs. 3:273-277. Ref. 1942. 241.01 Im7

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128. BARBOUR, W. R. Forest types of tropical America. Carib. Forester 3:137-150. July 1942. 1.9622 T2C23

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Economic woods of the world, arranged by botanical family. For each wood gives brief information about nomenclature, description, location and distribution, commercial and vernacular names, properties, and utilization.

130. BEARD, J. S. Climax vegetation in tropical America. Ecology 25:127-158. Ref. Illus. Apr.1944. 410 Ec7

Evolves a classification of vegetation formations, in English, Spanish, and Portuguese. The key study on which this classification is based was conducted on Trinidad and Tobago, but the author also has correlated information from Central and South America.

131. BELCHER, R. S., and others. Cross-ties of foreign woods. Amer. Ry. Engin. Assoc. Proc. 26:1033-1078. Illus. 1925. Libr. Cong.

S. B. Fisher, J. Foley, H. C. Hayes, and A. F. Maischaider, joint authors.

Information about native woods used as ties in Latin American countries, and test results of such woods used on American railway roadbeds.

132. BERGSTROM, G. Woods from the American tropics. Furniture Mfr. 40(5):45-47,84. Nov.1930. Libr. Cong.

Brief history of the commerce of various Dalbergia species, and their utilization for furniture and other forest products.

133. BLAKE, S. F., and ATWOOD, A. C. Geographical guide to the floras of the world. Pt.1. USDA Misc. P. 401,336 p. June 1942. 1 Ag84M

An annotated bibliography including works on useful plants from Central and South America, through 1939. Due consideration is given to timber trees.

134. BRITISH STANDARDS INSTITUTION. Nomenclature of commercial timbers including botanical names and sources of supply. British Standards 881 & 589, 101 p. 1946. 290.9 B77

B. S. 881, Hardwoods; B. S. 589, Softwoods. Sup., 20 p.,1948.

135. BROWN, N. C. The feasibility of introducing tropical ties in the United States. Amer. Wood-Preservers' Assoc. Proc. 18:182-189. 1922. 300.9 Am3

Includes discussion of native timber species utilized in British Guiana, Brazil, and other countries.

136. BRUSH, W. D. Balsa (*Ochroma lagopus* Sw.). Washington, U. S. Forest Serv.,1945. 14 p. Ref. Map. (Foreign Woods.) 1.9 F76Fwo

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137. BUELL, A. W. Timbers of tropical America and railway tie supply. Engin. News-Rec. 85:1139-1141. Dec.9,1920. 290.8 En34

138. BURKLAND, E. R. Divi-divi offers tannin. Agr. Amer. 3: 154-156. Illus. Aug.1943. 1 F752A

Tropical America as a source of *Caesalpinia* [*Libidibia*] *coriaria*.

139. BURTT DAVY, J. The classification of tropical woody vegetation-types. Oxford U. Imper. Forestry Inst., Inst. Paper 13,86 p. Ref. 1938. 99.9 Ox23

Chiefly derived from British Colonial experience in the African and Oriental tropics, but with some application to the American tropics. Further elaboration in Paper 19,19 p., by P. W. Richards, A. G. Tansley, and A. S. Watt. The recording of structure, life-form and flora of tropical forest communities as a basis for their classification. 1939.

140. CHANCEREL, L. Flore forestière du globe; principaux arbres forestiers, leur caractères, leurs stations, leurs sols, leurs races, les qualités de leur bois, leurs produits, leur emploi cultural, leur ennemis. Paris, Gauthier-Villars,1920. 738 p. 99.3 C36

141. COOPER, G. P. Espavé (*Anacardium rhinocarpus* DC.). Trop. Woods 22:4-9. June 1930. 99.08 Y1Tr

Occurrence of the tree [*A. excelsum*] from Costa Rica to Colombia and Venezuela; its utilization and wood technology.

142. COUDREAU, J. Traverses de chemins de fer en bois tropicaux. Bois et Forêts des Trop. 16:369-388. 4th Q.,1950. 99.8 B632

Tropical woods for cross ties. Latin American woods, p.375-376.

143. COX, W. T. Some facts about balsa. J. Forestry 42:714-715. Oct.1944. 99.8 F768

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144. COX, W. T. World's greatest hardwood forest. Amer. Forests.50:584-587,622. Dec.1944. 99.8 F762

Describes the forest on the east slopes of the Andes.

145. CUMULATIVE index to Tropical Woods, numbers 1 to 94 inclusive: general index; index to scientific names. New Haven, Yale U. Sch. of Forestry, 1949. 125 p. 99.08 Y1Tr

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146. DANIELS, A. S., and STRADER, O. R. Study of Central American woods' suitability for cross ties. Cross Tie B. 30(7):9-11. July 1949. 99.82 C87

147. DETWILER, S. B. Some basic information regarding tannins and tannin-yielding crops, prepared for use by tannin-research workers. Washington, U. S. Off. Foreign Agr. Relat., 1948. 112 p. Ref. 1.943 So52

Includes information on Latin American tannin sources: mangrove, quebracho, divi-divi, and others less known.

148. DICKINSON, F. E., HESS, R. W., and WANGAARD, F. F. Properties and uses of tropical woods, I. Trop. Woods 95, 145 p. Ref. June 1949. 99.08 Y1Tr

U. S. Off. of Naval Research and U. S. Bur. of Ships cooperating.

In addition to properties and seasoning information, classifies the various woods tested according to product usefulness. Discussions of separate species include tree description and general comments on distribution.

For pt. 2, see item 166.

149. DUCKE, A. Notes on the wallaba trees (*Eperua* Aubl.) Trop. Woods 62:21-28. June 1, 1940. 99.08 Y1Tr

150. ECOLOGICAL SOCIETY OF AMERICA. COMMITTEE ON THE PRESERVATION OF NATURAL CONDITIONS. Naturalist's guide to the Americas. Baltimore, Williams & Wilkins, 1926. 761 p. Ref. Illus. 409 Ec7

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151. FIEBRIG-GERTZ, C. Tropischer waldbau. Neues Handb. der Trop. Agr. 4(42), 88 p. 1930? 38 N39

Tropical silviculture. Includes conifers, eucalyptus, leguminous species, other valuable hardwoods including mahogany, light-weight woods, latex-yielding trees, palms, and bamboos.

152. FOREIGN timbers, 1-4. Gt. Brit. Dept. of Sci. & Indus. Res., Forest Prod. Res. Lab. L. 27, 29, 31, 32. 4 v. May-Sept. 1943. 99.9 G796L

Notes on trees, nomenclature, distribution, uses, and supply when known. 1, *Calophyllum* and *Cedrela*. 2, *Cordia* and *Vochysia*. 3, *Araucaria* and *Ocotea*. 4, *Aspidosperma* and *Qualea*.

153. FRYCKBERG, M. Mangrove bark. Agr. Amer. 5:199. Oct. 1945. 1 F752A

154. GARRATT, G. A. The wood of *Symphonia globulifera*. Trop. Woods 45:1-15. Ref. Mar. 1936. 99.08 Y1Tr

155. GERRY, E. Angélique or basra locus, *Dicorynia paraensis* Bth. U. S. Forest Serv., Forest Prod. Lab. R. 1787, 7 p. Ref. 1950. (Information Leaflet, Foreign Woods.) 1.9 R761R

156. GERRY, E. Gifts of the Americas: primavera. Agr. Amer. 6:191. Nov. 1946. 1 F762A

The tree and the wood of *Cyristax donnell-smithii*.

157. GT. BRIT. IMPERIAL INSTITUTE. Tanning materials of the British Empire. London, 1929. 100 p. Ref. 303 G972

Compilation and revision of scattered articles appearing in the Bulletin of the Imperial Institute. Mangroves, p. 24-27; divi-divi and algarobilla [*Caesalpinia brevifolia*], p. 73-76. Chiefly technological and commercial information.

158. GREENE, E. C. Santa María; a neotropical timber of the genus *Calophyllum*. *Trop. Woods* 30:9-16. June 1932. 99.08 Y1Tr
159. GREENHOUSE, S. Balsa wood—its growth and manufacture. *Wood Prod.* 46(9):16-18,41-42. Illus. Sept.1941. 99.82 W856
160. GUENTHER, K. Die eigenart des tropenwaldes. *Allg. Forst u. Jagd Ztg.* 102:121-133. Illus. Apr.1926. 99.8 AL3
Characteristic features of tropical forests, based on studies in Brazil and the East Indies.
161. GUINIER, M. A propos des branches d'*Araucaria brasiliana* et des noeuds: leur utilisation. *Rev. Bot. Appl. & d'Agr. Trop.* 20: 343-345. May/July 1940. 26 R323
Utilization of branch and whorl wood of *Araucaria angustifolia*.
162. HAMILTON, J. V. Waste of Mahogany and a plea for its stump. *N. Y. Lumber J.* 70(837):38-40. May 1,1921. 99.81 N48
Describes typical felling practice and discusses utilization of material in the stump.
163. A HANDBOOK of Empire timbers. Rev. ed. London, Gt. Brit. Dept. of Sci. & Indus. Res., Forest Prod. Res.,1945. 142p. 99.79 C83A
Summarized information for over 100 timbers, of which about 15 are from Latin America. Each timber presented as follows: Nomenclature; the tree; the timber; seasoning properties; wood bending properties; mechanical properties; natural durability; insect and marine borer attack; preservative treatment; working qualities; uses; supplies.
164. THE HARDWOODS of the Caribbean Sea; Republic of Venezuela and Dutch, British and French Guiana covered with dense forests, including many varieties of hardwood; greenheart [*Ocotea rodiaei*] is a hardwood of great resistance and freedom from decay. *Hardwood Rec.* 55(11):35. Sept.25,1923. 99.81 H225
165. HERMANN, F. J. Leguminous shrubs and trees used as shade and cover crops in tropical and subtropical countries. Washington, U. S. Off. of Foreign Agr. Relat.,1943. 17 p. (Economic Plants of Interest to the Americas.) 1.943 Ec72
Includes indigenous tree species so utilized in Central and Northern South America.
166. HESS, R. W., WANGAARD, F. F., and DICKINSON, F. E. Properties and uses of tropical woods, II. *Trop. Woods* 97,132 p. Ref. Illus. Nov.1,1950. 99.08 Y1Tr
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167. HOWARD, H. L. A manual of the timbers of the world; their characteristics and uses. Ed.3. London,Macmillan,1948. 751 p. Illus. 99.79 H83
A table of timbers by country of origin, p.659-674. Indexes of botanical and vernacular names follow. Common names largely are those of the British timber trade.
168. HOYER, F. Tropische papierhölzer. *Tropenplanzer* 40:503-529. Ref. Dec.1937. 26 T75
Tropical woods suitable for pulpwood. South American species, p514-519.
169. HYDE, K. C. Tropical light weight woods. *Bot. Gaz.* 79(4): 380-411. Ref. June 1925. 450 B652
Chiefly wood anatomy, but discusses geographical distribution of six light-weight Latin American species other than *Ochroma*.
170. INDEX to vernacular and trade names, Tropical Woods numbers 1 to 94. New Haven, Yale U. Sch. of Forestry,1950. 81 p. 99.08 Y1Tr
Unnumbered issue of *Trop. Woods*, May 1950.
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172. JUMELLE, H. Le quebracho. Rev. de Bot. Appl. 4:88-98. Feb.29,1924. 26 R323

The tree, the industry, and the product, in Argentina and Paraguay.

173. KALELA, E. K. Über die entwicklung der herrschenden bäume in den beständen verschiedener waldtypen Ostpatagoniens. Helsinki, 1941. 65 p. Ref. Illus. (Annales Academiae Scientiarum Fennicae Series A,4, Biologica 3.) 99.24 K12

Development of dominant trees in the forest types of Patagonia.

174. KALELA, E. K. Über die holzarten und die durch die klimatischen verhältnisse verursachten holzartenwechsel in den wälder Ostpatagoniens. Helsinki,1941. 151 p. Ref. Illus. (Annales Academiae Scientiarum Fennicae, Series A,4,Biologica 2.) 99.24 K12U

Forest tree species and changes which have evolved in the forests of Patagonia.

*Follows his Beiträge zur kenntnis der flora ost-patagoniens,1-3. Annales Series A,5. 1940-41.

175. KARLING, J. S. Collecting chicle in the American tropics. Torrey 42:38-49,69-81,105-113. Ref. Illus. Maps. Mar./Apr.-July/Aug.1942. 450 T63

Table p.74-77 gives sources, localities, vernacular names, and literature references on chicle and chicle adulterants.

176. KERR, G. A. The quebracho forests of South America. Amer. Leather Chem. Assoc. J. 16:172-202. Illus. Apr.1921. 303.9 Am32

Also separate, 99.24 K46; summary in Australian Forestry J. 5:31-32. Feb.15,1922. 99.8 Au74

Personal notes and observations, describing the forests and logging operations.

177. KOPPEL, C. VAN DE Bestaat er een houtsoort die teak kan vervanger voor scheepsdekken in de Tropen? K. Ver. Indisch Inst. Afd. Handelsmus. Ber. 219,9 p. 1947. 503 Am82B

Is there a tropical timber which can replace teak for ship-decking? Discusses substitutes, four of which are from South America. Has English summary.

178. LAMB, G. N. Foreign woods; origin, use, properties and nomenclature. Wood Prod. 52(4):48-49. — 55(12):24. Apr.1947-Dec. 1950. 99.82 W856

A monthly series of articles, continuing beyond the terminal date of this bibliography. Includes Latin American timber species.

179. LAMB, G. N. The hunt for mahogany. Natl. Hardwood Mag. 21(11):88-89,131. Dec.1947. 99.81 N212

Brief history of mahogany exploitation in Latin America, with a discussion of supply and requirements of the American market.

180. LAMB, G. N. The mahogany book. Ed.6. Chicago,Mahogany Assoc.,1947. 71 p. Illus. Map. 99.77 L16

181. MCCARTY, G. Useful timbers of tropical America. Timberman 25(1):156-158. Nov.1923. 99.81 T484

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Tropical American and African mahogany as items of commerce. A chart shows changes in mahogany use-patterns.

183. MARCO, H. F. Systematic anatomy of the woods of the Rhizophoraceae. Trop. Woods 44:1-9. Ref. Dec.1935. 99.08 Y1Tr

Abstract of thesis (Ph.D.)--Yale University School of Forestry. Some discussion of geographical distribution and economic importance of mangroves including those genera occurring in Central and South America.

184. MELL, C. D. [Commercial woods, foreign and domestic]. Veneers 20(11) - 30(1). Nov.1926-Jan.1936. 99.82 V55
An irregular (usually monthly) series of articles with varying titles. Many are Latin American timbers. Other periodicals which have carried his short articles on Latin American timbers are Hardwood Record (99.81 H225) and Timberman (99.81 T484). Follows a similar series by S. J. Record.
185. MELL, C. D. The increasing importance of the jobo [Spondias mombin] tree of tropical America. Pan Amer. Union B. 51:406-409. Illus. Oct.1920. 150.9 M76
186. MELL, C. D. Introducing new tropical hardwoods. Hardwood Rec.48(10):29-30. Mar.10,1920. 99.81 H225
187. MELL, C. D. Properties and uses of determa [Ocotea rubra] wood. Veneers & Plywood 33(3):10-11. Mar.1939. 99.82 V55
188. MELVILLE, R. A list of true and false mahoganies. Kew Roy. Bot. Gard., Misc. Inform. B.3:193-210. 1936. 451 K51B
Brief resumé of the development of mahogany trade, and the appearance of woods other than Swietenia on the market. A list of common and scientific names of true and false species is included.
Further comments in B. 4:274-276. 1937.
189. MENAGER, H. Voyages d'études forestieres et agricoles dans l'hémisphere sud. Argentine et Brésil,1947; Australie et Tasmanie, 1948. Bordeaux,Delmas,1950. 152 p. Illus. 99.24 M52
Includes observations regarding quebracho, other tannin sources, and the work of E. Navarro de Andrade.
190. MEYER, H. Buch der holznamen; the book of wood names; les noms des bois; los nombres de las maderas. Hannover,Schaper, 1936. 564 p. 452.14 M57
Arranged alphabetically by commercial and vernacular name, giving also the botanical name and the place of name use. Includes Latin American timbers.
191. MOULDS, F. R. Eucalypts and their use in semi-tropical plantings. Trop. Woods 91:1-16. Ref. Sept.1947. 99.08 Y1Tr
Reviews the status of eucalyptus plantings the world over, with some notes on yield, products, properties and silviculture. Includes information about Argentina, Brazil, Chile, Ecuador, Peru, Paraguay, and Uruguay.
192. MULLER, C. H. The Central American species of Quercus. U.S.D.A. Misc. P.477,216 p. July 1942. 1 Ag84M
Some revision, by the same author, in Madroño 10:129-139. Nov.3, 1949. 450 M26
193. NERLING, O. Nutzhölzer, schnitzstoffe. Hamburgisches Inst. f. Angew. Bot. Jahresber. 55:37-54; *56:43-59. 1938-39. 451 H176
Timbers and lumber, including brief information on nomenclature, distribution, and properties of over 100 tropical woods. One section is devoted to Brazilian and Chilean woods.
194. PIERCE, J. H. Balsa -- lightweight champion timber tree. N. Y. Bot. Gard. J. 43:268-277. Illus. Nov.1942. 451 N48J
195. POUDEROUX, R. Le balsa. Rev. Internatl. des Prod. Colon. 25:105-106. May 1950. 286.8 R326
196. RAILWAY tie woods used in foreign countries. Cross Tie B. 4(6):1-4,6,8,10,12,14,16,18,22. Aug.1923. 99.82 C87
Consular reports give the species utilized, occasional statistics on tie durability, and some information on the local industry. Countries covered include Costa Rica, British Honduras, Guatemala, Mexico, Nicaragua, Chile, Ecuador, Paraguay, British Guiana, Argentina and Brazil.

197. RAIZADA, M. B. Balsa wood. Indian Forester 73:155-163. Ref. Apr.1947. 99.8 In2

Considers botanical nomenclature, distribution, general characteristics, uses, supplies, cultivation and planting in countries other than Latin American ones, and other matters.

198. RECORD, S. J., and HESS, R. W. American timbers of the family Bignoniaceae. Trop. Woods 63:9-38. Sept.1940. 99.08 Y1Tr

In addition to botanical information, gives occurrence, utilization and properties of such commercial genera as *Cybistax* (primavera), *Tabebuia*, and *Jacaranda*.

199. RECORD, S. J., and HESS, R. W. American timbers of the family Lauraceae. Trop. Woods 69:7-33. Mar.1942. 99.08 Y1Tr

Some outstanding commercial genera in this family are *Aniba*, *Nectandra*, *Ocotea*, and *Phoebe*. Occurrence of trees, wood properties, and utilization are discussed.

200. RECORD, S. J. American timbers of the genera *Dalbergia* and *Machaerium*. Trop. Woods 72:1-11. Dec.1942. 99.08 Y1Tr

201. RECORD, S. J. American timbers of the mahogany family. Trop. Woods 66:7-33. June 1,1941. 99.08 Y1Tr

Beside botanical notes and wood properties, gives occurrence and utilization of commercial "mahoganies" other than *Swietenia*, e.g. *Cedrela*, *Carapa*, *Guarea*, and others.

202. RECORD, S. J. American woods of the family Anacardiaceae. Trop. Woods 60:11-45. Dec.1939. 99.08 Y1Tr

Notes on habit and occurrence of trees, and on their products, the latter of which cover a wide commercial range due to the presence in this family of such genera as *Anacardium* (cashew), *Astronium* (Gonçalo Alves), and *Schinopsis* (quebracho).

203. RECORD, S. J. American woods of the family Bombacaceae. Trop. Woods 59:1-20. Sept.1939. 99.08 Y1Tr

The family includes *Ochroma*, the balsa.

204. RECORD, S. J., and HESS, R. W. American woods of the family Boraginaceae. Trop. Woods 67:19-33. Sept.1941. 99.08 Y1Tr

This family includes the genus *Cordia*.

205. RECORD, S. J., and HESS, R. W. American woods of the family Moraceae. Trop. Woods 61:11-54. Mar.1940. 99.08 Y1Tr

Includes information on occurrence and utilization of *Brosimum* and *Piratinera* timbers, as well as *Chlorophora* and other less-exploited genera.

206. RECORD, S. J. American woods of the family Sapotaceae. Trop. Woods 59:21-51. Sept.1939. 99.08 Y1Tr

In addition to botanical description and wood technology, gives notes on occurrence and utilization of trees, with more complete treatment of two commercially prominent genera, *Achras* which produces chicle, and *Manilkara* which produces balata.

207. RECORD, S. J., and HESS, R. W. American woods of the family Verbenaceae. Trop. Woods 65:4-21. Mar.1941. 99.08 Y1Tr

Commercial timbers belong to the genus *Vitex*.

208. RECORD, S. J. The American woods of the orders Celastrales, Olacales and Santalales. Trop. Woods 53:38. Mar.1938. 99.08 Y1Tr

209. RECORD, S. J., and GARRATT, G. A. Boxwoods. Yale U. Sch. Forestry B. 14,81 p. Illus. Aug.1925. 99.9 Y1B

Previous brief treatment by S. J. Record only, entitled Boxwoods of commerce. Torrey Bot. Club B. 48:297-306. Nov.1921. 451 T63B

Includes Caribbean and South American genera yielding woods known as boxwood.

210. RECORD, S. J., and GARRATT, G. A. Cocobolo. Yale U. Sch. Forestry B. 8,42 p. Illus. Map. 1923. 99.9 Y1B

Botanical and commercial aspects of the Mexican and Central

American Dalbergias. Discussed and partly reproduced by S. Calderón, Maderas preciosas de El Salvador. Rev. de Agr. Trop. 3(2):89-94. Map. Apr./June 1925. 8 R326

211. RECORD, S. J. Distribution of the species of Swietenia. Trop Woods 1:2-4. Mar.1925. 99.08 Y1Tr

212. RECORD, S. J. Lignum-vitae [Guaiacum]; a study of the woods of the Zygophyllaceae with reference to the true lignum-vitae of commerce -- its sources, properties, uses, and substitutes. Yale U. Sch. Forestry B.6,48 p. Ref. Illus. 1921. 99.9 Y1B

213. RECORD, S. J. Mahogany in the upper Amazon. Trop. Woods 6:1-2. June 1926. 99.08 Y1Tr

214. RECORD, S. J. Random observations on tropical American timbers. Trop. Woods 77:1-10. Mar.1944. 99.08 Y1Tr

Contents summary: Heartwood of *Taxodium mucronatum*; Termite resistant *Bucida buceras*; Panama "candle wood" or "sigua canela"; "Cashier" of Bocas del Toro, Panama; Some proposed substitutes for balsa (*Ochroma*); Timbers naturally resistant to teredo; *Vantanea barbourii* in Costa Rica; Miscellaneous determinations.

215. RECORD, S. J. *Schizolobium*; a promising source of pulpwood Trop. Woods 2:2-5. June 1925. 99.08 Y1Tr

216. RECORD, S. J., and HESS, R. W. Timbers of the New World. New Haven, Yale U. Press, 1943. 640 p. Ref. Illus. Maps. 99.79 R24Tn

Describes, and attempts an economic evaluation of over one thousand predominately Latin American timbers, arranged by botanical family. Correlates vernacular and botanical names, and classifies families with reference to special properties and uses of their bark, leaves, and timber. The ranges of certain important genera are indicated on maps.

217. RECORD, S. J. Walnut woods -- true and false. Trop. Woods 18:4-29. June 1929. 99.08 Y1Tr

Includes discussion of occurrence of *Juglans* in Latin America. False walnuts in Latin American trade are *Phoebe porosa* (imbuia of Brazil), various *Cordias*, *Enterolobium* (guanacaste of Central America) and *Metopium brownei* which has a local name of Honduras walnut.

218. RECORD, S. J. We will need the tropical woods. Veneers 19 (8):22-24. Illus. Aug.1925. 99.82 V55

219. REICHERT, F. Contribución al conocimiento de la madera de coihue (*Nothofagus dombeyi*). In Buenos Aires Universidad, Facultad de Agronomía y Veterinaria. La Facultad de Agronomía y Veterinaria en el XXV aniversario de su fundación, p.95-111. Buenos Aires, 1929. 102.5 B862F

A contribution to the knowledge of the timber, coihue.

220. RENDLE, B. J. Cocabolo as a dyewood. Trop. Woods 23:6. Sept.1930. 99.08 Y1Tr

Tested wood was *Dalbergia retusa*.

221. RENDLE, J. Commercial mahoganies and allied timbers. Gt. Brit. Dept. of Sci. & Indus. Res., Forest Prod. Res. B. 18,45 p. Ref. Map. 1938. FS

222. RICH, J. L. The face of South America; an aerial traverse. New York, Amer. Geog. Soc., 1942. 299 p. Illus. Maps. (Special Publication 26.) 125 R37

Photographs from aerial traverses run through countries bordering the South American continent: Guianas, Brazil, Argentina, Chile, Peru, Ecuador, Colombia, and Panama.

223. ROWE, L. S., and ALBA, P. DE Convención y documentación sobre la protección de la flora, de la fauna y de las bellezas escénicas naturales de los países de América. Rev. Argentina Agron. 10:

67-76. Mar.1943. 9 R327

A list of species needing protection gives common and scientific names of many timber trees. The list, p.73-76, is arranged by country.

224. ROWLEE, W. W. Tropical trees with light-weight wood. N. Y. Bot. Gard. J. 22:75-78. Apr.1921. 451 N48J

Chiefly about Ochroma, Cavanillesia, and Jacaratia.

225. RÜHLE, K. Die vegetations formationen Südamerikas in ihrer klimatischen bedingtheit. Pettermanns Mitt. aus Justus Perthes' Geog. Anst. 74:29-34,95-100. Maps. 1928. 474 M69

South American vegetation formations in their climatic relationships Maps showing forest zones are in No. 1/2.

226. RUTTEN, F. Hout; soorten, groei, toepassing. Amsterdam, Van Kampen & Zoon,1949? 288 p. Ref. Illus. 99.79 R93

Wood; kinds, growth, and uses. Outstanding timbers of tropical and subtropical America, p.167-208.

227. SANTOS, E. O sapotieiro [*Achras zapota*]. Campo 9(106):55-57; (107):13-14. Ref. Oct.-Nov.1938. 9.2 C15

The tree's natural history as well as the economy of its products.

228. SAUVEGRAIN, S. Le balsa. Rev. du Bois 2(3):17-20. Illus. Mar.1947. 99.82 R32

229. SCHOLTEN, J. A. Structural timber for bridge construction in Central America. Natl. Res. Council, Highway Res. Bd. Ann. Mtg. Proc.24:202-206. 1944. 288.9 N21

230. SEIBERT, R. J. A study of Hevea (with its economic aspects) in the Republic of Peru. Mo. Bot. Gard. Ann. 34:261-353. Ref. Illus. Maps. Sept.1947. 451 M69

Includes natural distribution and range within the upper Amazon basin.

231. SILVEIRA, F. Mangrove. Rodriguésia 3:131-154. Ref. Illus. Sept./Dec.1937. 442.8 R61

Composition of mangrove swamps with particular reference to Brazil, and with a discussion of the economic importance of mangrove

232. SLIFKO, C. W. South American balsa wood in national defense. U. S. Bur. of Foreign & Dom. Com., Indus. Ref. Serv. Pt.4, Forest Prod. 26,3 p. May 1941. 157.54 In23

233. SKOTTSBERG, C. Zur pflanzengeographie Patagoniens. Deut. Bot. Gesell. Ber. 49:481-493. Ref. Maps. Jan.28,1932. 451 D48

Patagonian plant geography. Tree range forms a large portion of the author's thesis. Cites references to A. Donat on the same subject.

234. SOME new timbers and their uses. Timber Devlpmt. Assoc., Timber Inform. Ref. 34,8 p. 1948. 99.9 T48Tr

Timber imported by the United Kingdom, including several Latin American species, with their uses given.

235. SPOON, W. Toepassing van walaba of bijlhout. K. Ver. Indisch Inst. Afd. Handelsmus. Ber. 218,11 p. 1947. 503 Am82B

Uses of wallaba [*Eperua falcata*]: pulpwood, fuel and charcoal, and tannin source. Has English summary.

236. STANDLEY, P. C. The American species of Engelhardtia. Trop. Woods 12:12-15. Dec.5,1927. 99.08 Y1Tr

Occurrence in Costa Rica and Mexico.

237. STANDLEY, P. C. An enumeration of the Sapotaceae of Central America. Trop. Woods 4:1-11. Dec.1925. 99.08 Y1Tr

Includes botanical descriptions of other trees in the family yielding chicle, beside the well known *Achras zapota*.

Additions in 31:38-46. Sept.1932.

238. STANDLEY, P. C. Poulsonia, a genus of trees of the family Moraceae. Trop. Woods 33:4-5. Mar.1933. 99.08 Y1Tr

Conjectures the range along Atlantic Coast from Yucatan to Colombia. Discusses vernacular names and utilization of bark for cloth.

239. STEARNS, J. L. Balsa, its growth characteristics and uses. South. Lumberman 167(2105):216-220. Illus. Dec.15,1943. 59.81 So82

240. STEARNS, J. L. Tropical veneer woods. Wood [Chicago] 2(4): 23,43,47. Apr.1947. 99.82 W859

Notes on occurrence, properties and utilization of eleven cabinet woods from Latin America.

241. TEIXEIRA DA FONSECA, E. Umbaúba. Rev. da Flora Med. 1:289-296. Mar.1935. 71.8 R32

The tree and wood of Cecropia; chiefly medicinal properties, but some mention of its value for pulpwood.

242. THARANDT. REICHSINSTITUT FÜR AUSLÄNDISCHE UND KOLONIALE FORSTWIRTSCHAFT. Merkblätter über koloniale nutzhölzer 11-15,5 v. Ref. Illus. Maps. 1940? 99.9 T323M

Gives information on distribution and utilization of species, in addition to botanical notes, wood properties, and chemical analyses which include fiber counts. No. 11, Brasilkiefer, Araucaria angustifolia; 12, Balsa, Ochroma sp.; 13, Raulí, Nothofagus procera; 14, Laurel, Laurelia aromatica; 15, Mañiú, Podocarpus.

243. TIMBER DEVELOPMENT ASSOCIATION, LTD. Timber leaflets [series]. London,1942-43. 99.9 T48

Includes Latin American timbers which enter United Kingdom markets. For each timber gives nomenclature, distribution, notes on the tree and the wood, wood utilization, and supply when known.

Similar series issued later as World timbers: timber leaflets. London,1946. 2 v. 99.79 T48

244. TIMBER DEVELOPMENT ASSOCIATION. Commercial timbers of the world. Map. Wood [London] 12:52A. Feb.1947. 99.82 W855

A map of the world's forest regions, with lists of commercial timber species for various countries, including those of Latin America.

245. UPHOF, J. C. T. De geografische verspreiding van Salix humboldtiana Willd. in vergelijking met die van andere Salixsoorten. Nederland. Dendrol. Ver. Jaarb. 16:76-82. Ref. Illus. 1947. 99.9 N28

The geographical distribution of Salix humboldtiana Willd. in comparison with the other Salix species.

246. LES VRAIS et les faux balatas. Rev. de Bot. Appl. et d'Agr. Trop.128:261-282; 129:347-358. Apr.-May 1932. 26 R323

History of balata, and the trees as they occur in Brazil, the Guianas and the Antilles. Descriptions of them from a study of literature and herbarium material in Paris.

247. WANGAARD, F. F. Tropical wood research for the furniture industry. Forest Prod. Res. Soc. Proc. 3:72-84. 1949. 99.9 F7662P

Similar title in Furniture Mfr. 64(8):50-54,56. Aug.1949. 300.8 F982

A summary of some of the investigation results in the cooperative Yale Forest School-U. S. Off. of Naval Research studies of Latin American woods.

248. WELLS, S. D., and RUE, J. D. The suitability of American woods for paper pulp. USDA B.1485,102 p. May 1927. 1 Ag84B

Includes species from Argentina, Chile, and the Canal Zone, giving brief descriptions of trees and some information on range of occurrence.

249. WHAT is roble? Wood [London] 12(3):75-76. Mar.1947. 99.82 W855

Lists the families and genera of Latin American timbers bearing

the name of roble, and gives common names by country.

250. WHITE, O. E. The Amazon Valley. In Naturalist's guide to the Americas, p.674-681. Ref. Baltimore, Williams & Wilkins, 1926. 409 Ec7

251. WIEHE. Südamerikanische hölzer. Kolonforstl. Mitt. 2:410-418. Illus. Mar.1940. 99.9 K83

Commercial timbers of South America.

252. WILLIAMS, L. A study of the Caryocaraceae. Trop. Woods 42:1-18. Ref. June 1935. 99.08 Y1Tr

253. WILSON, O. Latin America as a source of tanning materials. Chem. & Metall. Engin. 30:303-305,344-346,398-399. Illus. Feb.25-Mar.10,1924. 381 EL2

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Includes mangrove, quebracho, divi-divi, and other sources.

254. WOODS, R. P. South American timbers. T. D. A. Q. Rev. 2 (1):8-9. Oct.1947. 99.9 T48T

A list of common names of timbers, with some descriptive information. Differs from the Timber Development Association's later compilation, item 256 in this bibliography, in giving the several botanical names of species known by the same trade name.

255. WOODS, R. P. South American timbers. Wood [London] 13: 221-222. Aug.1948. 99.82 W855

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256. WOODS, R. P. Timbers of South America. London, Timber Devlpmt. Assoc.,1949. 74 p. Ref. 99.79 T48Ts

A handbook listing timbers by their vernacular names, with brief notes regarding nomenclature, general wood description, properties, and utilization.

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257. ADAMO, O. A. D'. La Dirección Forestal Argentina y la provisión de materia prima a las industrias. Montes 4:145-149. Mar./Apr.1948. 99.8 M763

Argentina's Forestry Department and industrial forest policy.

258. ADAMO, O. A. D'. El sistema de valuación de bosques en la Argentina. Argentina Dir. Inform. P. Misc.320,18 p. 1949. 9 P943

The system of forest valuation in Argentina. Describes differing economic situations in various regions, with regard to the system.

259. ALBERTONI, J. L. Consideraciones sobre la industrialización de la madera en nuestro país [Argentina]. Chacra 14(158):16-19, 28. Dec.1943. 9 C34

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260. ALCOBA MARTINEZ, A. Cuestiones previas que plantea la exportación racional de los combustibles solidos vegetales. Argentina. Sec. de Indus. y Com. B. 1(7/8):435-438. Apr./May 1945. 280.9 Ar3

Questions of policy in connection with the supply of wood as fuel in Argentina.

261. *ALCOBA MARTINEZ, A. Tres conferencias sobre regimen forestal argentino. La Plata, Di Jorgi & Casado,1940. 30 p. Libr. Cong.

262. ALFONSO, J. L. Algunas consideraciones sobre los bosques de Tierra del Fuego. Ingen. Agron. 1(6):10-14,16-23. Map. Jan./Feb 1940. 9 In4

*Not examined.

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Contents: Species encountered; botanical description; zone of distribution; growth; forest area; defects; taxation; factors in exploitation; and conclusions.

263. ALFONSO, J. L. Los bosques de Tierra del Fuego. Suelo Argentino 1:115-119. Illus. Map. Feb.1942. 9 Su2

The forests of Tierra del Fuego.

264. ALMONACID, P. N., and CARILLO, R. Desarrollo de las industrias agropecuaria y forestal de Santiago del Estero. Rev. de Econ. Argentina 40:147-151. May 1941. 280.8 R325

Development of livestock and forest industries in Santiago del Estero, Argentina. Includes statistics of production of timbers, fuelwood, posts, and ties, 1927-38.

265. *ALMUNI, C. A. La cuestión forestal argentina. Córdoba, Córdoba U., 1946. 168 p. Libr. Cong.

266. ALORI SALAS, C. Nuestros bosques necesitan mejorar sus sistemas de explotación. Rosario, Bolsa de Com., Rev. 38(918):3-5. Apr.15, 1950. 287 R71

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Exploiting Argentina's forests to benefit the following forest industries: tannin, furniture, construction lumber, pulp and paper.

267. AMADEO y VIDELA, D. Discurso pronunciado por el Señor Ministro de Agricultura ... en la inauguración de la Primera Exposición Forestal Argentina que se realizó en la capital federal el 24 de Diciembre de 1942. Argentina, Dir. de Tierras, B. de Tierras y Colon. 18(300):3-7. Jan.1943. 9 T44

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268. ARGENTINA. COMISION DE LA INDUSTRIA DEL QUEBRACHO. La industria del extracto de quebracho. Argentina. Sec. de Indus. y Com. B. 1(6):190-195. Mar.1945. 280.9 Ar3

269. THE ARGENTINE quebracho industry. South. Lumberman 1420:52. Dec.9, 1952. 99.81 So82

270. ARMOUR RESEARCH FOUNDATION. Technological and economic survey of Argentine industries, with industrial research recommendations. Report to the Corporación para la Promoción del Intercambio, S. A. Chicago, 1943. 381 p. 280.161 Ar5

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271. ARRIGHI, A. A. El bosque y la tierra. Argentina. Min. de Agr. Almanaque (1945)20:311-314. 9 Ag874

272. BACIGALUPO, J. A. Combustibles sólidos en el país. Indus. y Quim. 7:423-426. Dec.1945. 385 In28

Statistics of consumption of wood and charcoal in Argentina, and a discussion of these and other combustible fuels.

273. BASES racionales para la explotación de los bosques fiscales de pino en Misiones. Maderil 17(194):3-5. Aug.1944. 99.82 M26

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274. BRINKMANN, T. Ackerbau und kolonisation im argentinischen Chaco. Germany. Reichsmin. f. Ernährung u Landwirt, Ber.

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275. BARBOUR, W. R. Argentine and Paraguay forest conditions. J. Forestry 18:823-830. Dec.1920. 99.8 F768

276. BENASSI, L. La legge forestale argentina. Ital. Forest. e Mont. 3:172-176. May/June 1948. 99.8 It12

Comments on Argentina's new forest law.

277. CAFFERATA, R. E. Conservación de los bosques. Buenos Aires, 1947. 14 p. 99.5 C12

Forest conservation in Argentina's national parks.

278. CARLINI, V. Corsa attraverso l'Argentina, fra foreste, vivaie e piantagioni, visite a segherie falegnamerie, fabbriche di compensato, cartiere. Indus. del Legno [Milan] 2(11):33-36; (12):19-22. Illus. Nov.-Dec.1950. 99.82 In2

A journey across the Argentine, through forests, nurseries and plantations, sawmill, plywood factory, and the pulpwood plantations in the Parana Delta.

279. CARMELICH, J. N. F. Fabricación de carbón de leña de quebracho blanco en Santiago del Estero [Argentina]. Ingen. Agron. 1(3): 5-12. Illus. Oct.1939. 9 In4

Includes tree species utilized in charcoal production; methods of operation; charcoal production statistics.

280. CARMELICH, J. N. F. Reforestación. Hereford 11:430-431. Sept./Oct.1945. 43.8 H42

The need for reforestation in Argentina, to compensate for forest devastation.

281. CARMELICH, J. N. F. El territorio de Misiones está cubierto por bosques en un 95% de su extensión. En los 2,800,000 hectáreas que ellos cubren se encuentran maderas de alto valor industrial. Argentina. Min. de Agr. Almanaque (1945)20:235-237. Illus. 9 Ag874

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282. CARRETERO, R. V. Forestación. Rev. Mens. B. A. P. 30 (357):13-14,50; (358):18-19. Aug.-Sept.1947. 9 R326

Reforestation program in Argentina.

283. CARRETERO, R. V. El levantamiento aerofotogramétrico en la confección del mapa forestal del país. Argentina. Min. de Agr. Almanaque 23:381-382. 1948. 9 Ag874

Discusses the possibility of a photogrammetric survey of Argentina's forests and gives an illustration of a tract containing *Araucaria angustifolia*, photographed aerially in Misiones.

284. CASSAGNE SERRES, A. La industria forestal argentina. Buenos Aires, Baiocco, 1929. 102 p. Illus. Pan Amer. Union Libr.

Contents: The forests of Argentina (classification); Exploitation; Lease contracts; Taxation; Various forest operations; Conducting forest enterprises.

285. LA COM. CONSULTIVA Nacional de Bosques. Maderil 8(95): 3-4. May 1936. 99.82 M26

La Comisión Consultiva Nacional de Bosques, organized to coordinate scientific and industrial matters affecting Argentina's forest resource.

286. CONGRESO ARGENTINO DE ASOCIACIONES DE PRODUCTORES FORESTALES. Segundo congreso ... Santiago del Estero. Buenos Aires, 1948. 116 p. Libr. Cong.

Contains various pronouncements regarding fuelwood, quebracho, and trade.

287. CORNELL, C. Condiciones que reúne el Delta para la explotación forestal. Maderil 16(188):11-12. Feb.1944. 99.82 M26

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288. COSTANTINO, I. N. El bosque y su enemigo No. 1. Argentina. Dir. de Inform. P. Misc. 222,16 p. Illus. 1946. 9 P943

General discussion of forest fires and other elements of forest destruction. Illustrations show conditions in Argentina.

289. COZZO, D. Aún ignoramos la superficie ocupada por los bosques argentinos. Campo [Argentina] 32(393):32-34. Sept.1949. 9 C15

The area of Argentina's forests still is unknown. Discusses various estimates, and illustrates destructive forces which reduce the resource.

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344. TESDORFF, H. Superficies forestales y reservas madereras de la Argentina. Suelo Argentino 2:195-197. Illus. Mar.1943. 9 Su2

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359. VALOR económico y función social de nuestra riqueza forestal. Sante Fé. Dir. Gen. de Invest., Estadís. y Censos. B. 2:408-420. Nov. 1948. 255.1 Sa58

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General topographic aspect, and forest tree species found in the Territory of Neuquén, Argentina.

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Includes natural occurrence of native species, and some notes on wood utilization. Subsequent items in this series concentrate on botanical information.

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400. COEFICIENTES físico-mecánicos, características y aplicaciones industriales de las principales maderas argentinas y de importación. Maderil 17(199):10-13. Jan.1945. 99.82 M26
Properties, characteristics and industrial applications of the principal Argentine timbers (73 in all) and of 15 imported species.
401. CORNELL, C. Especies maderables aptas para la confección de envases para frutas. Argentina Min. de Agr. de la Nac. B. 35(1/3): 13-67. Ref. Illus. Oct./Dec.1933. 9 B633
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404. COZZO, D. Algunas observaciones sobre el álamo híbrido "Arnaldo Mussolini." Argentina. Min. de Agr. Almanaque 20:253-255. 1945. 9 Ag874
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406. COZZO, D. El bosque de Bahía Aguirre en Tierra del Fuego (Argentina). Rev. Argentina de Agron. 16:193-198. Illus. Dec.1949. 9 R327
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790. FREISE, F. W. Die edelhölzer Brasiliens. Tropenpflanzer 34:137-153. Apr. 1931. 26 T75

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791. FREISE, F. W. Einige bemerkungen über soziologische verhältnisse im urwald. Z. f. Weltforstwirtschaft. 6:603-621. June 1939. 99.8 Z35

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804. HERINGER, E. P. Contribuição ao conhecimento da flora da zona da mata de Minas Gerais. Brazil Serv. Nac. Pesquisas Agron. B. 2,187 p. Ref. Nov.1947. 9.2 B738

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808. HOEHNE, F. C. As florestas da Serra do Mar. São Paulo Sec. de Agr., Indus. e Com., Notas Agr. 6:99-103. 1943. 31.9 Sa63

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811. HORN, E. F. Commercial timbers of Brazil, 1,500,000 square miles of forest resources. Braz. Business 15:237-242,260, 262,266,268,270,272. May/June 1945. 286.8 B732

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822. KOSCINSKI, M. Pinheiro brasileiro como especie mais indicada para uma nova indústria construção de aviões -- varias notas. São Paulo Sec. de Agr., Indus. e Com., Notas Agr. 6:343-346. 1943. 31.9 Sa63

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823. KOSCINSKI, M. O pinheiro brasileiro na silvicultura paulista. São Paulo (State) Secretaria da Agricultura, Industria e Commercio, 1934. 56 p. Illus. 99.35 Sa62P

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826. LABOURIAU, L. F. G., and MATTOS FILHO, A. DE Notas preliminares sôbre a "Região da Araucária". An. Bras. de Econ. Florestal 1:215-228. Illus. 1948. 99.83 An8

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827. LARDNER, G. B. S. Commercial timbers of the Amazon. Wood [London] 14:9-11. Illus. Jan.1949. 99.82 W855

828. LEAHY, J. G. Brazilian woods will help build the New World. Brazil's tropical trees promise pioneers some interesting rewards in scientific research. Brazil 19(8):14-16. Aug.1945. 280.8 B732

829. LE COINTE, P. Aponamentos sobre as sementes oleaginosas; balsamos, resinas, essencias, borrachas, guttas e balatas da floresta amazonica. Ed. 4. Rio de Janeiro, Brazil Ministerio da Agricultura, Industria e Commercio, 1931. 60 p. Libr. Cong.

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831. LEE, L. Notes on the Paraná pine of southern Brazil. J. Forestry 18:57-61. Jan.1920. 99.8 F768

832. LEMOS FROES, R. DE Mahogany discovered in the State of Pará, Brazil. Trop. Woods 78:1-3. June 1944. 99.08 Y1Tr

833. LESCHNER, F. Das Araucarien-holz Süd-brasiliens und seine wirtschaftliche bedeutung. Weltholzwirtschaft 1:25-30. Feb.1949. 99.82 W46

Araucaria timber of South Brazil and its economic significance.

834. LÖBBE, H. Como eu vi o pau-novo (*Séssea brasiliensis*) no Estado de Minas Gerais. Chacaras e Quintais 74:431-434. Oct.15, 1946. 9.2 C34

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Recounts a botanical expedition into northern Amazonas and describes vegetation.

836. LUETZELBURG, P. VON Estudo botânico do Nordeste. Rio de Janeiro, Brazil Inspectoria Federal de Obras Contra as Secças, 1922-23. 3 v. Ref. Illus. Maps. (Publicação 57, Série I, A.) 9.2 B73

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837. LUETZELBURG, P. VON Die pflanzengeographischen verhältnisse im Amazonas-Gebiet. Deut. Bot. Gesell. Ber. 57:247-262. Illus. Aug.2,1939. 451 D48

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A critical review by A. Ducke appears in Rev. da Vet. 8(33):17-19. Jan.1945. 41.8 R3218

838. A MADEIRA no Espírito Santo. An. Bras. de Econ. Florestal 2:413. 1949. 99.83 An8

Estimate of the amount of virgin timber standing in Espírito Santo, and various tree species represented.

839. MADEIRAS brasileiras de exportação. An. Bras. de Econ. Florestal 2:43-50. 1949. 99.83 An8

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840. MADEIRAS brasileiras para escadas. An. Bras. de Econ. Florestal 2:412-413. 1949. 99.83 An8

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841. MAGUIRE, E. G. Gifts of the Americas: Paraná pine (Brazilian Araucaria). Agr. Amer. 6:79. Apr.1946. 1 F752A

In addition to describing a typical Parana pine forest, with its components, discusses the industry developed in this region.

842. MELLO, O. S. A merindiba [*Lafoensia glyptocarpa*]. Rio de Janeiro, Brazil. Departamento Nacional da Produção Vegetal, 1938. 110 p. Illus. 99.35 Si3

A tree said to be abundant in the forests of Gavea, Brazil. Includes its uses for fuelwood, construction lumber, and watershed protection.

843. MENEZES, A. I. DE Flórea da Bahia. São Paulo, 1949. 265 p. (Brasiliana Série 5, v. 264) 457.2 M52

Listings by common and botanical names.

844. UNE MISSION biologique Belge au Brésil. Brussels, Imprimerie Medicale et Scientifique, 1929. 2 v. Ref. Illus. Maps. 457.2 M32

V.2 contains a detailed account of a voyage on the lower Amazon, with illustrations and descriptions of vegetation, by R. Bouillenne, and studies of forest flora in Para, by P. Ledoux.

845. MYERS, J. G. Observations on a journey from the mouth of the Amazon to Mt. Roraima, and down the cattle-trail to Georgetown. Agr. J. of Brit. Guiana 5:86-100. June 1934. 9.6 B774

Includes notes on forest vegetation, and a description of lumbering operations around Fordlandia, Tapajoz River.

846. NAVARRO DE ANDRADE, E. Contribuição para o estudo da flora florestal paulista: vocabulário de nomes vulgares. São Paulo, 1941. 457.2 N22C

Common names of forest trees, with botanical designation.

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A comprehensive monograph with particular reference to the place of eucalyptus in the forest economy of Brazil. Statistical tables accompany the text. Pt. 1 deals with natural aspects and silviculture; Pt. 2 with wood utilization, products, and technology.

848. NAVEZ, A. La forêt équatoriale brésilienne. Soc. Roy. de Bot. de Belg. 57:7-17. Illus. 1924. 451 B41B

849. NEIVA, A. Localizando o "pau-brasil". Chacaras e Quintais 79:417-419. Map. Apr. 15, 1949. 9.2 C34

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850. NORONHA, H. O nordeste brasileiro. Primeira Reunião Sul-Amer. de Bot., An. 1:227-237. Map. 1939. 451 R31

851. OBSERVAÇÕES gerais e contribuições ao estudo da flora e phytophysionomia do Brasil. São Paulo, Secretaria da Agricultura, Indústria e Commercio, 1926-42. 5 v. Illus. 457.2 Sa6

852. OLIVEIRA, A. P., and LIMA, D. A. Serra Negra. Pernambuco (State) Sec. da Agr., Indus. e Com. B. 15:388-397. Illus. July/Dec. 1948. 9.2 P423

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853. OLIVEIRA, B. DE As regiões de ocorrência normal da Araucária. An. Bras. de Econ. Florestal 1:185-199. Ref. 1948. 99.83 An8

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854. OWENS, J. M. What about Parana pine? South. Lumberman 181(2266):42. Sept. 1, 1950. 99.81 So82

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855. PAULA, R. D. DE G. Sugestões para a exploração racional do pinheiro do Paraná; madeira, pasta mecânica, celulose, plástico, substituto de goma laca, alcatrão e carvão de nó. Rev. de Quím. Indus. 18(212):20-23. Dec. 1949. 385 R324

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856. PEREIRA, H. Pequena contribuição para um dicionário das plantas úteis do Estado de S. Paulo (indígenas e aclimadas). São Paulo, Typographia Brasil de Rothschild, 1929. 779 p. Illus. 457.2 P41P

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English summary. Brazilian timbers used for railway ties.

858. PEREIRA, J. A., and MAINIERI, C. Madeiras do Brasil; sua caracterização e índices qualificativos físicos e mecânicos. An. Bras. de Econ. Florestal 2:283-351. Illus. 1949. 99.83 An8

Includes distribution of tree species, wood uses, and nomenclature for 30 commercial timbers.

859. PEREIRA, J. A. Madeiras tropicais do Brasil para o mercado mundial. An. Bras. de Econ. Florestal 1:108-112. 1948. 99.83 An8

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860. PEREIRA, J. A., and MAINIERI, C. Nomenclatura das madeiras nacionais. São Paulo (State) Inst. de Pesquisas Tecnol. B. 31: 29-56. Ref. June 1945. 99.79 Sa6

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862. PINHEIRO, E. C. As florestas e as essencias florestaes do Estado do Pará. Rio de Janeiro, Ministerio da Agricultura, Industria e Commercio, 1930. 63 p. 99.24 P65
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863. PODHORSKY, I. Neue skilholzarten aus Brasilien. Forstwissenschaft. Centbl. 55:144-146. Feb.15,1933. 99.8 F775
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876. SAO PAULO BRAZIL. INSTITUTO DE BOTANICA. A flora do Distrito de Ibiti; (ex-Monte Alegre), município de Amparo, by M. Kuhlmann and E. Kühn. São Paulo, 1947, pub. 1948. 221 p. Ref. Illus. (Publicação da Série "B") 457.2 Sa63

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882. SOBRINHO, V. Introdução á silvicultura do Nordeste. Pernambuco, Brazil. Inst. de Pesq. Agron. Arq. 2:127-219. Illus. 1939. 9.2 R24A

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938. LAMB, A. F. A. The influence of modern trends in timber utilization on silvicultural policy in British Honduras. Belize, Brit. Honduras Forest Dept., 1947. 4 p. Map. FS

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Based on a report by C. E. Gidden.

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945. MAY, E. S. Central American mahogany. *Timber Trades J.* 99:551-554. Feb.20,1926. 99.81 T48

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946. METZGEN, M. S., and CAIN, H. E. C., comps. The handbook of British Honduras. London, West India Comt., 1925. 459 p. Illus. 254 M56

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952. OLIPHANT, J. N. Development of forestry in British Honduras. *Empire Forestry J.* 4:39-44. 1925. 99.8 Em72

953. OLIPHANT, J. N., and STEVENSON, D. An expedition to the Cockscomb Mountains, British Honduras, in March 1928. *Geog. J.* 73:123-137. Illus. Feb.1929. 472 G29

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954. OLIPHANT, J. N. Forest trusts. *British Empire Forestry Conf. Papers* 3:9-11. 1928. 99.9 B774

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955. OLIPHANT, J. N. Forestry in British Honduras; a statement prepared for the British Empire Forestry Conference, Australia and New Zealand, 1928. Belize, Brit. Honduras Forest Dept., 1928. 21 p. Map. FS

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958. RECORD, S. J. Banak [*Virola*] -- new British Honduras wood. *Veneers* 29(10):28-29. Illus. Oct.1925. 99.82 V55

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961. THE RESOURCES of British Honduras. Gt. Brit. Imper. Inst. B. 32:356-410. Nov.1934. 26 G79

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970. STEVENSON, N. S. Forest associations of British Honduras. *Carib. Forester* 3:164-172. July 1942. 1.9622 T2IC23

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979. BECKER, H. F. Land utilization in Guanacaste Province of Costa Rica. Geog. Rev. 33:74-85. Illus. Jan.1943. 500 Am35G

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980. BIERIG, A. Vagabunderías de un naturalista. Inst. de Defensa del Café de Costa Rica. Rev. 17:109-117. Illus. Sept.1946. 68.28 C82

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981. *CAVE, M. S. Forest legislation in Costa Rica. Washington, U. S. Off. of Inter-Amer. Affairs, 1945. 18 p. Pan Amer. Union Libr.

982. DAYTON, W. A. Copey oak [*Quercus copeyensis*] in Costa Rica. Agr. Amer. 4:134-135. Illus. July 1944. 1 F752A

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989. MERKER, C. A., and others. Accomplishments of Latin American Forest Resources Project in Costa Rica. Washington, U. S. Forest Serv., 1943. Various paging. 1.962 A2Ac24

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990. MERKER, C. A., and others. The forests of Costa Rica; a general report on the forest resources of Costa Rica made by the Forest Service of the United States Department of Agriculture in cooperation with the Office of the Coordinator of Inter-American Affairs. Washington, 1943. 84, 48 p. Illus. Map. 1.962 A2F762

W. R. Barbour, J. A. Scholten, and W. A. Dayton, joint authors. Contents: Geographical background; The forests; Exploitation of the forests; Potential wood requirements and uses; Some essential steps in a forestry program; Appendix, including a list of trees, some wood properties, wood prices, and trade statistics.

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993. MONTERO GOMEZ, J. Derivados forestales de Costa Rica. Rev. de Agr. [Costa Rica] 21:289-294,333-337,353,355-357; 22:23,25-29. July-Sept.1949,Jan.1950. 8 Es1

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995. PETERSON, L. E. Agricultural development prospects in Costa Rica. Washington, Inter-Amer. Devlpmt. Comn., 1947. 109 p. Maps. 281.15 P44

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1001. STANDLEY, P. C. A brief survey of the vegetation of Costa Rica. In Plants and Plant Science in Latin America, p.64-67. Waltham, Mass., Chron. Bot., 1945. 453 V58

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Annotated list of latex-yielding trees and shrubs of Guatemala.

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Based on a report by N. C. Stines. Contents: Forest areas; Commercial species; Ownership; Forest regulations; Commercial development; Logging and Transportation; Lumber production; Regulations affecting the lumber industry; Trade, etc.

Previous treatment with title Lumber industry and trade of Guatemala, issued as U. S. Bur. of Foreign & Dom. Com. Indus. Ref. Serv. Pt. 4, Forest Prod. 30,4 p. June 1941. 157.54 In23

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1009. KARLING, J. S. Couma guatemalensis as a possible future source of chicle. Amer. J. Bot. 22:580-593. Ref. Illus. June 1935. 450 Am36

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1014. *MORTON, F. Guatemala. In Karsten, G. Vegetationsbilder, Reihe 22, H. 1. 1931. 452.9 K142
1015. NUMERO extraordinario dedicado al Servicio Forestal. Rev. Agr. [Guatemala] 2(21-26):265-454. July/Dec.1946. 8 G934
Some timber species of our forests, p.298-303. Numerous photographs of trees and land conditions, and short articles on fire control, soil erosion, forest nurseries, and trade.
1016. PACHECO HERRARTE, M. Agriculture in Guatemala. Washington, Pan Amer. Union, 1944. 37 p. 31.6 P11
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1017. POPENOE, W. Guatemala. In Naturalist's guide to the Americas, p.596-600. Baltimore, Williams & Wilkins, 1926. 409 Ec7
1018. POPENOE, W. Plant resources of Guatemala. In Plants and Plant Science in Latin America, p.278-281. Ref. Waltham, Mass, Chron. Bot., 1945. 453 V58
Commercial tree species, p.280.
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1019. RECORD, S. J. Trees of Gualán, Guatemala. Trop. Woods 11:10-18. Sept.1927. 99.08 Y1Tr
Taxonomic descriptions preceded by a general discussion of topography in the Motagua Valley; prominent tree species and local utilization of timber.
1020. RECORD, S. J. Trees of Santa Inés, Guatemala. Trop. Woods 14:25-29. June 1925. 99.08 Y1Tr
Notes on the area's general appearance and notes on wood utilization, in addition to a list of common and scientific names of species.
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1022. ROJAS, U. Elementos de botánica general. Guatemala City, 1936. 985 p. Illus. (v. 3, p.677-1661, of series.)
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1023. ROQUE, J. M. Flora medicoguatemalteca, 1. Guatemala City, 1941. 187 p. Illus. 456.2 R68
Medicinal plants of Guatemala. Includes a discussion of vegetation zones, p.81-84; a list of timbers and their uses, p.90-95; and information about Guatemala conifers, p.120-127.
1024. SAMAYOA P., R., and SAGASTUME D., J. A. Algunas especies maderables de nuestros bosques. Rev. Agr. [Guatemala] (Ser. 2) 2:298-303. July/Dec.1946. 8 G934
1025. SAUNDERS, L. F. Mahogany production in Guatemala. Timberman 22(5):48,48B. Mar.1921. 99.81 T484
1026. SIERRA, H. M. Los encinos de Guatemala y América Central. Rev. Agr. [Guatemala] (Ser.2) 2:319-323. July/Dec.1946. 8 G934

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Oaks of Guatemala and Central America.

1027. SIERRA, H. M. Una madera de provenir -- el conacaste [*Enterolobium cyclocarpum*]. Rev. Agr. [Guatemala] (Ser.2) 2:354-356. July/Dec.1946. 8 G934

1028. STANDLEY, P. C., and STEYERMARK, J. A. Flora of Guatemala. Chicago Nat. Hist. Mus. Fieldiana (Bot. Ser.) 24(4-6), 3 v. April, Aug. 27, 1946; Dec. 27, 1949. 500 C432B

Includes British Honduras. For trees of commercial importance, gives occurrence, notes on range, common names, products, and utilization.

1029. STANDLEY, P. C. The forests of Guatemala. Trop. Woods 67:1-18. Sept. 1941. 99.08 Y1Tr

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1030. STANDLEY, P. C. Los pinos de Guatemala. Pan Amer. Union B. 82:96-98. Illus. Feb. 1948. 150.9 M76B

Utilization.

1031. STANDLEY, P. C., and STEYERMARK, J. A. The vegetation of Guatemala. In Plants and Plant Science in Latin America, p. 275-278. Ref. Waltham, Mass., Chron. Bot., 1945. 453 V58

Also in Chron. Bot. 7:315-318. 1943. 450 C46

1032. STEYERMARK, J. A. Flora of Guatemala. Ecology 31:368-372. Ref. Map. July 1950. 410 Ec7

1033. TERCERO, J. The chicle industry [Guatemala]. Pan Amer. Union B. 61:891-894. Sept. 1927. 150.9 M76

HONDURAS

1034. BURGOS, J. Forest wealth of Honduras. Pan Amer. Union B. 79:98-99. Illus. Feb. 1945. 150.9 M76

General comments on forest conditions.

1035. CARR, A. F., JR. Outline for a classification of animal habitats in Honduras. Amer. Mus. Nat. Hist. B. 94:563-594. Ref. Illus. Mar. 27, 1950. 500 N483B

Forest types figure largely in this vegetation classification of animal habitats.

1036. COLEMAN, F. B. Forest resources, lumber industry, and trade of Honduras. U. S. Off. Internatl. Trade, World Trade Comm. Pt. 6. Lumber & Allied Prod. 5, (25), 7 p. Oct. 1947. 157.54 In236

Based on report by A. K. Ludy, Jr.

Contents: Forest areas; Species of wood; Current exploitation; Land ownership and logging rights; Forestry practices; Sawmill industry; Lumber consumption; Foreign trade; Outlook for the industry; Decree No. 62, Law of valuable woods and useful trees.

1037. DURLAND, W. D. The pine forests of Honduras. Trop. Woods 10:8-9. June 1927. 99.08 Y1Tr

1037a. HARPER, J. Lumber heaven: three men think they've found it. South. Lumber J. 51(7):20, 22, 96. July 1947. 99.81 So8

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1038. MAYANS, J. J. Industrias forestales para Honduras; el tannino. Honduras Agr. 1(8):16. June 1, 1945. 8 H753

Briefly notes tannin sources in Honduras.

1039. MORALES Y SANCHEZ, A. Reseña forestal hondureña. Rev. de Agr. [Costa Rica] 14:563, 565, 567, 569-570; 15:233-235, 237;

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283,285-286;369,371; 411-412. Dec.1942,May-June,Aug.-Sept.1943.
8 Es1

A forest sketch of Honduras. Discusses commercial tree species, and the work of the Honduras Botanical Garden with respect to forest trees. Plants producing fruit, perfume, dyes, medicines, poisons, oils, gums, and resins also reviewed.

1040. POPENOE, W. El problema forestal de Honduras. Honduras Agr. 2(18):11-12. May 1946. 8 H753

1041. RECORD, S. J. Trees of Honduras. Trop. Woods 10:10-47. June 1927. 99.08 Y1Tr

Includes list of common and scientific names.

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1042. SHANK, P. J. Forest resources of Honduras. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources Proc. 1948:559-563. 150 In82 No.4

Estimates the resource; describes the forest and its utilization.

1043. STANDLEY, P. C. Flora of the Lancetilla Valley, Honduras. Chicago Nat. Hist. Mus., Bot. Ser. 10,418 p. Illus. Jan.15,1931. 500 C432B

1044. STANDLEY, P. C. The woody plants of Siguatepeque, Honduras. Arnold Arboretum J. 11:15-46. Jan.1930. 451 Ar6J

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U. S. Institute of Inter-American Affairs cooperating.

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1091. CROQUIS mostrando la distribución de los bosques en El Salvador. n. p., 1946. Map. 99.23 G28

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Thesis - Universidad de Chile.

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1127. FINER, H. The Chilean Development Corporation; a study in national planning to raise living standards. Montreal, Internatl. Labour Off., 1947. 84 p. 280.164 F49

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1128. FOREST resources of Chile. *Roy. Soc. of Arts J.* [London] 72:169-170. Jan.25,1924. 501 L847J

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1133. GREENE, S. B. Lumber industry of Chile. Timberman 28 (7):115. May 1927. 99.81 T484

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1134. GRIFFITHS, T. E. Timber resources of southern Chile. Timberman 24(5):45-46. Illus. Mar.1923. 99.81 T484

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1135. HAIG, I. T. Chilean forest mission. Yale Forest Sch. News 32:62-63. Oct.1944. 99.8 Y1

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1136. HAIG, I. T., and others. Forest resources of Chile, as a basis for industrial expansion. Washington, U. S. Forest Serv., 1946. 256 p. Illus. Map. 1.962 A2F7628

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1140. HARTARD EBERT, M. Nuestra industria maderera. Industria 66:787-788. Dec.1949. 297.9 So1

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1141. HEPP DUBIAU, R. Nuestros bosques. Unión Agr. del Sur 4(23):23-24; (24/25):5-6. May, July/Sept.1946.

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1144. HUERTA MUÑOS, J. M. Caja de forestación. Santiago, Uniatario, 1942. 107 p. Ref. 99.65 H87

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1145. INOSTROZA MANOSALVA, P. C. La industria maderera en Chile. Santiago, Universidad de Chile, Facultad de Ciencias Jurídicas y Sociales, 1944. 129 p. Ref. 99.75 In7

The lumber industry in Chile. Contents: Economic importance of the lumber industry; Destruction of the forests of the country; Lumber production; Forestry activities; The forestry problem; The systems of exploitation and lumber manufacture; classification of woods; other lumbering problems of a commercial and legal nature.

1146. INSTITUTO DE ECONOMIA AGRICOLA. Exportacion de maderera de laurel. *Industria* 66:727-728. Nov.1949. 297.9 So1

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1148. JIRKAL HOFFMANN, J. Standarización y comercio de las maderas. *In* Primera asamblea forestal nacional, p.209-213. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

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1149. KNOCHE, W. Über die nördliche waldgrenze in Chile. *Berlin, Z. f. Gesell. f. Erdk.* 1/2:41-45. 1923. 474 B45

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1150. LESCHNER. Über die forstverhältnisse in Chile. *Z. f. Weltforstwirtschaft.* 6:319-325. Feb.1939. 99.8 Z35

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1153. MAIGE A., J., and BERNATH, E. L. Viveros y plantaciones forestales de la Caja de Colonización Agrícola. *In* Primera asamblea forestal nacional, p.259-267. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

Forest nurseries and plantations of the Office of Agricultural Colonization. Lists nurseries in operation, forest tree species being raised in each, and gives the estimated production capacity of each nursery.

1154. MALDONADO, E. Contribución al estudio de la industria maderera y bosques chilenos. Santiago, *Le Ilustración*, 1925. 63 p. *Illus. Libr. Cong.*

Contents: General information on the forests; Actual state of forest exploitation; Description of the principal forest tree species.

1155. MALDONADO B., E. Tratado de arboricultura forestal y de adorno. Santiago, Artes y Letras, 1926. 2 v. *Illus.* 99.45 M29

Chile

A manual of forest and ornamental tree culture. Gives descriptions, ranges and uses of trees native to and introduced into Chile. Introductory chapters discuss forest conditions in general and the lumber industry.

1156. MARTIN, C. *Landeskunde von Chile*. Ed. 2. Hamburg, Friederichsen, 1923. 786 p. Ref. Illus. 125 M361

A study of the land of Chile. Flora, including forest vegetation, p.223-283.

1157. MATTHEI, A. *Klimaprovinzen und wälder in Chile*. Internatl. Cong. of Forest Res. Proc. 7:443-446. 1929. 99.9 In82V

Climate zones and forests in Chile.

1158. MATTHEI, A. *Landwirtschaft in Chile*. Leipzig, Velhagen & Klasing, 1929. 95 p. Ref. Illus. Map. 31.9 M43

Agriculture in Chile. Includes illustrations of forest vegetation, and a section on forest utilization, p.59-60.

1159. MEYER RUSCA, W. *El problema de la invasion del bosque en el Sur Chile*. In *Primera asamblea forestal nacional*, p.138-144. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

The problem of clearing for cultivation in the forest lands of south Chile.

1160. MILLER, D. *Chiefly on Chilean forests*. New Zealand J. Forestry 4:161-172. Maps. 1938. 99.8 C162

Also issued as *Cawthron Inst. of Sci. Res. P. 33,13 p.* 1939. 23 C31P

1161. MUÑOZ PIZARRO, C., and PISANO VALDES, E. *Estudio de la vegetación y flora de los parques nacionales de Fray Jorge y Talinay*. Agr. Tec. [Chile] 7:71-190. Dec.1947. Ref. 464.9 C432B

English summary in *Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources*, Proc. 1948:491-496. Ref. 150 In82 No.4

Includes an ecological analysis of forests.

1162. NAZARIT, C. E. *La algarroBILLA*. In *Primera asamblea forestal nacional*, p.115-120. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

Caesalpinia brevifolia as a source of tannin.

1163. NEIRA S., B. *Reforestación con pinos o con especies chilenas*. *Unión Agr. del Sur*. 2(10):21-22. Mar.1944. 9.3 Un3

The question of using exotic or indigenous species in Chile's reforestation projects. Further on the subject by A. Santa Cruz, p.19-21.

1164. *NOTES on Chilean timbers*. Timber Devlpmt. Assoc. *Timber Inform. Ref.* 29,3 p. 1946. 99.9 T48Tr

Timbers suitable for export are listed by common name, and their uses given.

1165. ORTIZ GARMENDIA, J. *Flora chilena: el chañar, valiosa especie forestal resistente a los suelos salinos*. *Campesino [Santiago]* 80(2):19-20. Feb.1948. 9.3 So12

Gourliea spinosa, a small tree used for fuelwood, occurring in northern Chile.

1166. ORTIZ GARMENDIA, J. *Flora chilena: servicios que nos presta el sauce amargo chileno*. *Campesino [Santiago]* 80(6):35-36. June 1948. 9.3 So12

Further information on varieties, 80(7):21. July 1948.

Salix humboldtiana, particularly in Chilean reforestation.

1167. ORTIZ GARMENDIA, J. *Flora espontanea, ganadería y forestación en el Norte Chico*. *Campesino [Santiago]* 77:287-289. May 1945. 9.3 So12

Interrelationships of vegetation, livestock grazing, and forest regeneration in Norte Chico.

Chile

1168. ORTIZ GARMENDIA, J. El quillay [Quillaja saponaria], valioso arbol industrial, en peligro de extinción. Campesino [Santiago] 79(3):29-30. Mar.1947. 9.3 So12

A tree valuable in various industries, chiefly for its bark which contains saponin and tannin. The author discusses legislation to prevent the extinction of the species in Chile.

1169. ORTIZ GARMENDIA, J. La reforestación de la Zona Norte [Chile]. Agr. del Norte 29, i. e. 30:37-39. Jan./Feb.1946. 9.3 So14

Reforestation plan for the north of Chile.

1170. PASTOR, V. Corrección de torrentes y repoblación de suelos erosionados. In Primera asamblea forestal nacional, p.43-45. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

1171. PETERS, K. Estudio experimental sobre selvicultura en Chile. Santiago, Nascimento, 1938. 50 p. Illus. 99.65 P44

1172. PISANO V., E. Observaciones sobre la renovación del bosque de laurel y ulmo en la región del Lago Llanquihue. Agr. Tec. [Chile] 10:22-31. June 1950. 464.9 C432B

English summary. A silvicultural analysis of regeneration in a forest in which *Laurelia aromatica* and *Eucryphia cordifolia* are dominants.

1173. PRIMERA asamblea forestal nacional. Santiago, Sociedad de Amigos del Arbol, 1943. 310 p. 99.9 As1

Discusses the forest problems and activities of Chile, and gives resolutions concerning action to be taken.

1174. THE PULP woods of Chile. Pan Amer. Mag. 32:246-247. Apr.1921. 110 P19

1175. RAMIREZ, R. Plantaciones forestales en la Provincia de Concepción. Agrario 10(378):3. Apr.15,1946. 9.3 Ag85

Also in Unión Agr. del Sur. 3(17):11. May 1945. 9.3 Un3

Forest plantations in the Province of Concepción, Chile.

1176. RECART, H. Algunos aspectos de la explotación racional del bosque virgen chileno. Primer Cong. Sudamer. de Ingen. 4: 355-365. 1939. Pan Amer. Union Libr.

Exploitation of Chile's virgin forests. Includes statistics regarding the forest resource and the lumber industry.

1177. RECART, H. Chile -- an asset to the State of Washington. Wash. U. Forest Club Q. 1(2):13-17. Illus. June 1922. 99.9 W275Q

Describes Chile's forests and lumber industry. Suggests reciprocal markets between Chile and Washington, in hardwoods and softwoods.

1178. RECART, H. La Corporación de Fomento a la Producción en su cooperación en actividades forestales y madereras del país.

In Primera asamblea forestal nacional, p.249-250. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

1179. RECART, H. Estudio sobre reservas forestales y parques nacionales. In Primera asamblea forestal nacional, p.214-221. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

Study of forest reserves and national parks in Chile. Discusses the resources and the use to which timber is put. Recommends policy for expansion.

1180. RECART, H. Preservación de maderas. Scientia 14:83-89. Mar./Apr.1947. 475 Sci25

Discusses wood preservation problems related to Chilean timbers.

1181. ROIVAINEN, H. Observaciones sobre la vegetación en los alrededores de Termas de Chillán, Prov. de Ñuble, Chile. Suomalainen eläin-ja kasvitieteellinen seura Vanamo, Helsingfors.

Chile

Kasvitieteelsiä Julkaisuja ... An. Bot. 5(4),30 p. Ref. Illus. 1934.
451 Su7

Forest vegetation in the Province of Nuble, Chile.

1182. RUBENS, E. Adelantos de la industria maderera y forestal. *Scientia* 14(11/12):338-343. Nov./Dec.1947. Ref. 475 Sci25

Recent technological developments in timber as they relate to the Chilean situation.

1183. RUIZ, C. Nuestro patrimonio forestal. *Agrario* 15(414):15-16,36. July 1950. 9.3 Ag85

Also in *Agr. Austral* 18:442-444. Oct.1950. 9.3 Ag842

Forests and forest industries of Chile. Includes a table of wood production by species from the main wood-producing area of the country.

1184. SKOTTSBERG, C. Einige bemerkungen über die vegetationsverhältnisse. *Göteborgs Kungl. Vetenskaps -och Vitterhets Samhälles Handl.* 28(3):23-29. Illus. 1924. 502 G71H

Plant relationships in West Patagonia (Chile), including trees.

1185. SLIFKO, C. W. Chile's plywood and veneer industry. U. S. Bur. Foreign & Dom. Com. Indus. Ref. Serv., Pt. 6, *Forest Proc.* 3 (2),2 p. July 1945. 157.54 In236

Also in *Veneers & Plywood* 39(12):26,28-29. Dec.1945. 99.82 V55

1186. SOZA W., H. El problema forestal en Chile. *Chile Min. de Agr. B.* 5(16):43-50. Apr./June 1938. 9.3 C433

1187. U. S. TARIFF COMMISSION. Agricultural, pastoral, and forest industries in Chile. Washington, 1945. 47 p. 173 T17Ag

Forest products and industries, p.7-8,40-42.

1188. VALENZUELA, H. Forests and forestry in Chile. *Mich. Forester* 26/27:26-28. 1946. 99.9 M588

1189. VECHSLER, M. J. Forestry Council established in Chile. *Com. Intel. J.* 69:250-252. Sept.25,1943. 286.8 C16

Also comments on the general lumbering situation in the country.

1190. VERGARA C., C. Enfermedades del lingue (*Persea lingue* Nees). In *Primera asamblea forestal nacional*, p.271-276. Santiago, Sociedad de Amigos del Arbol, 1943. 99.9 As1

Includes 1934-41 production statistics for lumber of a species valuable in woodworking and for tanbark.

1191. VIDAL, J. J. La silvicultura en Chile. *Agr. Austral.* 16:193-194. Apr.1949. 9.3 Ag842

Chiefly about forest plantations to provide industrial wood.

COLOMBIA

1192. ANCIZAR, E., and RANGHEL GALINDO, A. Proyecto de recomendación por el cual se establece el Fondo de Fomento Forestal. *Cong. Forest. de Colombia* 1:105-110. 1945. 99.9 C7697

Proposed law to establish a fund to promote forest credit.

1193. THE BASIS of a development program for Colombia. Report of a mission headed by Lauchlin Currie and sponsored by the International Bank for Reconstruction and Development, in collaboration with the government of Colombia. Washington, D. C., Internatl. Bank for Reconstr. & Devlpmt., 1950. 642 p. 280.165 M69B

General economic information, including land utilization, industries and transportation. Lumber and forest products are discussed p.416-417.

1194. BATES, M. Climate and vegetation in the Villavicencio region of eastern Colombia. *Geog. Rev.* 38:555-574. Oct.1948. Map. 500 Am35G

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Describes grassland, savanna and rain forest vegetation.

1195. BELL, P. L. Colombia; a commercial and industrial handbook. U. S. Bur. Foreign & Dom. Com., Spec. Agents Ser. 206, 423 p. Maps. 1921. 157.71 Sp3

Topographic features, p.25-29; forest products, p.76-95.

1196. BLOCH, H. Parcelación colonización y defensa forestal. Rev. Nac. de Agr. [Bogotá] 521/522:12-14. Sept./Oct.1948. 9.4 R32

Discusses the incompatibility of forest colonization with good land management and suggests a positive program to follow after parceling Colombian forest properties.

1197. BRAZIL wood [Haematoxylon brasiletto]. Kew Roy. Bot. Gard., Misc. Inform. B. 2:79-80. 1920. 451 K51B

The Brazilwood situation in Colombia and the decline in trade of this dyewood.

1198. CALDERON BUENDIA, C. Productos que podemos exportar del Amazonas. Vida Rur. [Bogotá] 4(47):28. June 1943. 9.4 V66

Lists exportable forest products of the remote Amazonas district of Colombia, and names commercial timber species.

1199. CASTRO R., J. Algunos conceptos de organización forestal para el Atlántico. Cong. Forest. de Colombia 1:375-378. 1945. 99.9 C7697

1200. CAVE, M. S. Forest legislation in Colombia. Washington, U. S. Off. of Inter-Amer. Aff., 1945. 38 p. Ref.

Pan Amer. Union Libr.

General introduction deals with the forestry situation in Colombia. A glossary of tree names is appended.

1201. CLUB ROTARIO DE BOGOTÁ. Conservación y repoblación forestal. Cong. Forest. de Colombia 1:111-123. 1945. 99.9 C7697

A plan for forest development in Colombia, centering around establishment of an Instituto de Fomento Forestal.

1202. CLUB ROTARIO DE BOGOTÁ. COMITÉ FORESTAL. Instituto de Fomento Forestal. Vida Rur. 7(76):27-30. Nov.1945. 9.4 V66

Includes text of a proposed bill for forest planting and conservation in Colombia.

1203. COLOMBIA. DEPT. DE CONTRALORIA. Geografía económica de Colombia. Bogota, 1943-47. 7 v. Pan Amer. Union Libr.

Regional analyses of States, some of which contain chapters on forestry. 1, Antioquia, 1935; 2, Atlántico, 1936; 3, Boyacá, 1936; 4, Caldas, 1937; 6, Choco, 1943; 7, Tolima, 1946; 8, Santander, 1947. The last two are in U. S. Dept. of Agriculture Library, 278.165 C71

1204. COLOMBIA. DEPT. DE TIERRAS. Problemas forestales de Colombia. Bogotá, Kelly, 1945. 115 p. 99.24 C71

1205. COLOMBIA. MINISTERIO DE LA ECONOMIA NACIONAL. Informe ... al Congreso de 1945. Bogotá, Imprenta Nac., 1945. 314 p. 280.9 C712

Reports on the work of the Sección de Bosques, Dept. de Tierras, p.35-68, covering a 5-year period. Other annual reports are also available, under titles which may vary. Continued by Memoria (280.9 C712M).

1206. COLOMBIAN COMMISSION OF INTER-AMERICAN DEVELOPMENT. Report presented to the Conference of Commissions of Inter-American Development ... on an outline of the present industrial situation in Colombia. Washington, Inter-Amer. Devlpmt. Com., 1944. 20 p. Pan Amer. Union Libr.

Lumbering, p.9-10; mangrove exploitation, p.15.

1207. CONDE GALOFRE, G. Colombian hardwoods. New Orleans Port Rec. 5(7):21-22. Mar.1947. 286.8 N472

Colombia

Lists hardwoods other than mahogany and balsa which found their way into American markets during World War II.

1208. CORTES, S. *Dendrologia y gilologia de Colombia*. Rev. de la Acad. Colombiana de Cien. Exact., Fís. y Nat. 2:60-66. Jan./Mar. 1938. 516 Acl

Chiefly botanical, but cites local names and briefly notes uses of various Colombian trees.

1209. CRIST, R. E. A geographical traverse across the Eastern and Central Cordilleras of Colombia. Pan Amer. Union B. 76:132-144. Illus. Mar.1942. 150.9 M76

Illustrations accompany the author's remarks on forest destruction and shifting agriculture along the route described.

1210. CRUZ RIASCOS, L. C. Colonización del Amazonas [Colombia]. Agr. Trop. [Bogotá] 3(5):45-51. May 1947. 26 Ag8

1211. CUATRECASAS, J. Observaciones geobotánicas en Colombia. Madrid, Mus. Nac. de Cien. Nat. Trab., Ser. Bot. 27,144 p. Illus Dec.31,1934. 451 M26

A detailed ecological analysis, including descriptions of woody vegetation in highland areas of Colombia.

1212. CUATRECASAS, J. Vistazo a la vegetación natural del bajo Calima. Acad. Colombiana de Cien. Exact., Fís. y Nat. Rev. 7:306-312. Illus. July 1947. 516 Acl

Describes forests adjacent to the river, and mangrove swamps. Economic plants, p.311-312.

1213. CUBILLOS, L. A. Memoria sobre el problema de aguas y bosques ... de los municipios de Armenia y Montenegro, Departamento de Caldas. Cong. Forest. de Colombia 1:90-101. 1945. 99.9 C7697

1214. CURRAN, H. M. The Lands of Loba, Colombia. Trop. Woods 19:11-38. Sept.1929. 99.08 Y1Tr

A general description of lands and forests in an area on the Caribbean side of Colombia, accessible chiefly by water. Principal commercial timber species are given, with some attempt to estimate average stands per acre, and to suggest possible ways to exploit and utilize these species. A list of species and a checklist of common and scientific names are appended.

1215. DANIEL, HERMANO Algunas especies maderables de Colombia. Carib. Forester 5(3):119-123. Apr.1944. 1.9622 T2C23

Discusses species suitable for carpentry and construction.

1216. DANIEL, HERMANO Divagaciones sobre la flora de Colombia. Carib. Forester 8:145-160. Apr.1947. 1.9622 T2C23

English translation, p.153-160. Also discusses *Hymenaea courbaril*, *Jatropha*, and their products.

1217. DIAZ GALINDO, F. M. Informe ... para estudiar las montañas de occidente, en relación con la posibilidad de la repoblación forestal a base de madera de comino. Colombia Dept. de Agr. y Ganad. B. de Agr. 4:377-406. Illus. June/Sept.1933. 9.4 In22

Account of a journey made to study possibilities of developing cabinet wood resources, especially *Aniba perutilis*.

1218. DUBEAU, N. P. Peligroso y grande; mahogany hunting in the Colombian Choco ... Monsanto Mag. 28:18-22. Feb.1949. 309.8 M75

Logging experiences in a wilderness area.

1219. DUGAND, A. Algunas leguminosas de la Amazonia y Orinoquia colombianas. Caldasia 5(21):65-76. Mar.20,1948. 516 C12

Clarification of geographic occurrence of certain species, many of which are timber trees.

1220. DUGAND, A. Árboles y arbustos notables o poco conocidos

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del Departamento del Atlántico. Colombia. Dept. Atlántico, Dept. de Agr., B. de Agr. y Ganad. 1(2):21-32. Apr.1935. 9.4 At6

1221. DUGAND, A. El carrito o cumula (*Aspidosperma dugandii* Stanl.). *Caldasia* 2:367-369. Jan.6,1944. 516 C12

Discusses distribution, common names and wood uses in Colombia.

1222. *DUGAND, A. Ensayo sobre las formaciones ecológicas vegetales en el Departamento del Atlántico. Apuntes sobre la Hist. del Dept. Atlántico [Baranquilla] 1933:21-29.

Trees, p.30-32.

1223. DUGAND, A. Estudios geobotánicos colombianos; descripción de una sinecia típica en la subxerofitia del litoral caribe. *Acad. Colombiana de Cien. Exactas, Fís. y Nat., Rev.* 4:135-141. Jan./July 1941. 516 Ac1

Also in *Amer. Sci. Cong. Proc.* 8(3):207-217. 1942. 330.9 Am3008

Ecological analysis of plant associations in the lower valley of Rio Magdalena.

1224. DUGAND, A. On the vegetation and plant resources of Colombia. In *Plants and Plant Science in Latin America*, p.289-293.

Ref. Waltham, Mass., *Chron. Bot.*, 1945. 453 V58

Also in *Chron. Bot.* 7:71-75. Mar.1942. 450 C46

Timbers, p.292.

1225. DUGAND, A. The transition forests of Atlántico, Colombia. *Trop. Woods* 40:1-14. Dec.1934. 99.08 Y1Tr

Describes lowland and upland forests. A checklist of scientific and common names of trees is appended.

1226. *DUQUE JARAMILLO, J. M. Agrupaciones geográficas y ecológicas de algunas especies arbóreas y más industriales de Colombia. *Acad. Colombiana de Cien. Exact., Fís. y Nat., Rev.* 7?:344-347. Dec.1947. 516 Ac1

Geographical and ecological grouping of certain economic tree species in Colombia.

1227. DUQUE JARAMILLO, J. M. *Botánica general colombiana*. Manizales, Colombia, 1943. 400 p. 457.5 D92

A textbook of general botany which contains a classification of commercial timbers according to uses, p.174-177, a table of mechanical properties of Colombian woods, p.340-341, and a taxonomic dictionary of the industrial flora, p.349-381.

1228. DUQUE JARAMILLO, J. M. *Manual de bosques y de maderas tropicales*, v. 1 & 2. Manizales, Colombia, 1931. 227 p. 457.5 D92M

V. 1 contains general articles on forestry and forest industries in Colombia and in other countries of the world. Ch. 3 concerns the need for forest legislation in Colombia; Ch. 4 compares Colombia's forest resources with that of other countries; Ch. 7 deals with vegetation zones in Colombia. V. 2 presents the forest botany of Colombia, including both native and introduced species. A list of scientific and vernacular names of trees is appended.

1229. DUQUE JARAMILLO, J. M. *Meliaceas colombianas*. *Tierras y Aguas* 3(21):27-32; (22):3-11. May-June 1940. 282.8 T44

In addition to botanical description, gives wood properties, uses, and possibilities of planting of such genera as *Cedrela*, *Guarea*, and *Swietenia*.

1230. ESPINA, R., and GIACOMETTO, J. *Trees of Sierra Nevada de Santa Marta*. *Trop. Woods* 30:17-37. June 1932. 99.08 Y1Tr

An introduction presents the vegetative zones in this section of Colombia, and describes sites on which collections were made. This is

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followed by a list of specimens collected and a checklist of common and scientific names.

1231. EXPORTACION de maderas colombianas. Com. e Indus. [Bogotá] 2(5):3-6. Jan.31,1941. 255.5 C7192

Possibilities of developing an Argentine market for Colombia woods. Lists 65 forest products used in Argentina and discusses adaptation of Colombian timbers to these uses. Detailed accounts of properties and uses are given for 3 Colombian timbers: *Lignum vitae*, balsa, and bamboo.

1232. FERNANDEZ BERTRAND, S. Apuntes de un viaje a Colombia. Soc. Cubana de Bot. Rev. 3:130-134. Sept./Oct.1946. 451 So123

Observations of land formations and vegetation zones.

1233. GEOGRAFÍA económica de Colombia. Bogota, Mes Financiero y Económico, 1948. 357 p. Internatl. Monetary Fund. Libr.

1234. GOMEZ AMOROCHO, R. Conservación de nuestros bosques. Santander (Dept.) Contraloría Dept. B. 10(40):26-31. Nov.1944. 255.5 C7152

The need for forest conservation in Santander, Colombia, particularly considering the destruction of forests for fuel and charcoal.

1235. GONZALEZ, A. Evolución de la política forestal. In Colombia. Dept. de Tierras. Problemas forestales de Colombia, p.15-20. Bogotá, Kelly, 1945. 99.24 C71

Background and work of the Sección de Bosques.

1236. GONZALEZ, A., and GARTNER, V. Evolución del problema forestal en Colombia. In Colombia. Dept. de Tierras. Problemas forestales de Colombia, p.7-14. Bogotá, Kelly, 1945. 99.24 C71

Reviews forest laws, and the general conditions of forest industries and resources.

1237. HENDRICKSON, R. Colombia's great forest resources. Amer. Lumberman 2531:75. Nov.17,1923. 99.81 Am3

An observer's opinion of the forest resource and lumber industry possibilities.

1238. JARAMILLO SIERRA, B. Valles de Colombia. Bogotá, Libreria Voluntad, 1949. 239 p. Ref. 56.7 J28

Land conditions and outline for improvements in several of Colombia's river valleys.

1239. KRAMER, J. H. Forest resources and lumber industry of Colombia. U. S. Bur. Foreign & Dom. Com., Indus. Ref. Serv. Pt. 6, Forest Prod. 3, 6 p. Dec.1945. 157.54 In236

Contents: General description; Forest regions; The principal species; The lumber industry; Exports and imports; Management and development; Future possibilities.

1240. LABORES desarrolladas a partir de 1940. In Colombia. Dept. de Tierras. Problemas forestales de Colombia, p.21-45. Bogotá, Kelly, 1945. 99.24 C71

Developments in forest policy and law since 1940. Discusses licensing of forest operations, the study of products development, of zones for exploitation and for reserves, and of reforestation. Further sections on protection laws (chiefly watershed protection) and law enforcement. Amount and value of all forest products exported from Colombia for 1942-44 are given on p.40.

1241. MIDKIFF, H. M. National economy of Colombia. Com. Pan Amer. 15(9/10), 72 p. Ref. Sept./Oct.1946. 280.8 C736

Forest products, p.16-17.

1242. PENNELL, F. W. Colombia. In Naturalist's guide to the Americas, p.623-636. Map. Baltimore, Williams & Wilkins, 1926. 409 Ec7

Includes description of forested regions.

Colombia

1243. PEREZ ARBELAEZ, E. *Hilea magdalenesa*; prospección económica del valle tropical del Río Magdalena. Bogotá, Colombia. Contraloría General, 1949. 191 p. Ref. Illus. 280.169 P41

Ch. 7, Forests, contains a table of woods and their uses, and several aerial photographs of forests along the Río Magdalena.

1244. PEREZ ARBELAEZ, E. Informe del botánico al Señor Ministro de Industrias. Rev. Indus. [Bogotá] 6:677-679. Jan./Feb.1931. 9.4 R322

An account of a scientific expedition to the Caquetá region, southwestern Colombia, describing trees and other economic plants encountered.

1245. PEREZ ARBELAEZ, E. Maderas. Arboles 2:242-244. May 1945. 99.8 Ar16

Timber resource problems: forest destruction, land laws, the mixed forests of Colombia, and future timber requirements of Colombia in terms of products.

1246. PEREZ ARBELAEZ, E. Plantas utiles de Colombia, ensayo de botánica colombiana aplicada. 537 p. Illus. Bogotá, 1947. 457.5 P41

Includes timber trees, arranged in botanical families. Appendices include a list of publications on timber, p.504-505, a list of species recommended for reforestation, p.512, and an index to vernacular names, p.521-529.

1247. PEREZ ARBELAEZ, E. Reservas naturales. Vida Rur. 6 (67):24. Feb.1945. 9.4 V66

1248. PEREZ SALAZAR, H. Forests and ranges. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948:514-518. 150 In82 No.4

Includes coordination of forestry with hydroelectric developments in Antioquia, Colombia.

1249. POZO RODRIGUEZ, P. DEL Estudios y soluciones de algunos problemas forestales colombianos. *In* Colombia. Dept. de Tierras. Problemas forestales de Colombia, p.47-56. Bogotá, Kelly, 1945. 99.24 C71

Chiefly about organizing a Service of Waters and Forests, and what the functions of such a Service should be. Flood control and soil conservation problems of the Valle de Nemocon, Sabana [Río Bogotá], and Río Magdalena areas are discussed, presumably by the same author, p.57-92.

1250. POZO RODRIGUEZ, P. DEL Orientaciones para una política forestal en Colombia. Tierras y Aguas 3 i.e 4(28/29):21-53. Apr./May 1941. 282.8 T44

Further with the title Bosques *in* (32/36):16-34. Aug./Dec.1941.

Outlines a forest policy for Colombia, including discussion of forest destruction, various types of forest growth and their economic possibilities.

1251. PRIMER Congreso Forestal de Colombia, 1945. Bogota, Colombia. Departamento de Tierras, 1945. 415 p. 99.9 C7697

Consists of problem analysis, plan of action, development, industrial possibilities of forest products, orientation of a reforestation campaign, and legislative outline.

1252. RANGHEL GALINDO, A. Abarco [*Cariniana pyriformis*]: importante árbol de nuestras selvas. Colombia. Min. de la Econ. Nac., Agr. 16:1201-1202. 1944. 9.4 In22

The tree and the wood formerly known as "Colombian mahogany".

1253. RANGHEL GALINDO, A. The Colombian forests; their use and conservation. New York, Natl. Fed. of Coffee Growers of

Colombia

Colombia, 1949. 27 p. Libr. Cong.

Presented to the United Nations Conference on Conservation and Utilization of Natural Resources. Pt. 1, an ecological classification of forests; individual tree species; estimates of forest area. Pt. 2, Forest economics and policy.

1254. RANGHEL GALINDO, A. El camino crespomadera preciosa de los bosques colombianos. *Agr. Trop.* 6:25-27. Jan.15,1950.

26 Ag8

Aniba, a timber suitable for railway ties.

1255. RANGHEL GALINDO, A. Los palos brasil de Colombia. *Carib. Forester* 5(2):84-93. Jan.1944. 1.9622 T2C23

English summary. Designates the principal dyewoods of Colombia, the availability and growth of the trees, and uses of their woods.

1256. RANGHEL GALINDO, A. Plan forestal colombiano. Bogotá, Colombia. Departamento de Tierras, 1946? 20 p. 99.24 C67

Typewritten.

A report outlining backgrounds of Colombian forest policy and suggesting programs for a Forest Institute, to cover: 1, Conservation of the forest resource; 2, Reforestation of denuded areas; 3, Study of forest industrialization, which last includes lists of forest species to be utilized in production of barbasco, cinchona, tannins, rubber and other guttas, balsams, balsa wood, fine woods, dye and chemical species, box lumber, fibers, chicle, palm oils and waxes, pulp and paper, and medicinal plants. Estimates the costs of implementing this forestry plan.

1257. RANGHEL GALINDO, A. Las potencialidades forestales de la República de Colombia. *Cong. Forest. de Colombia* 1:53-74. 1945. 99.9 C7697

Similar title in *Colombia* 6/7:189-200. *Illus.* June/July 1944. 280.8 C712

Describes forest regions and lists commercial species for each, with some discussion of forest products.

1258. RECALDE DE LA ESPRIELLA, V. Consideraciones sobre el problema forestal en el Departamento del Tolima. *Cong. Forest. de Colombia* 1:369-373. 1945. 99.9 C7697

1259. RECORD, S. J., and KUYLEN, H. Santa Marta Valley, Colombia. *Trop. Woods* 23:9-23. Sept.1930. 99.08 Y1Tr

Northeastern Colombia forests, commercial species therein, and their utilization. An annotated list of trees and shrubs collected by the authors and a checklist of common and scientific names are appended.

1260. SAMPER, A. El fomento forestal y la política agraria. *Rev. Nac. de Agr. [Bogotá]* 41(512):14-16. Dec.1947. 9.4 R32

1261. SEIFRIZ, W. Die höhenstufen der vegetation in der Sierra Nevada von Santa Marta (Colombia). *Bot. Jahrb.* 68:107-125. *Ref. Map.* Nov.16,1936-Apr.14,1937. 450 En3B

Delineates vegetation zones and describes dominant plants in each zone.

1262. STANDLEY, P. C. The Colombian species of *Aspidosperma* and *Tabebuia*. *Trop. Woods* 36:13-20. Dec.1933. 99.08 Y1Tr

1263. TOBON VILLEGAS, A. El exagerado uso de la leña es causa de la crisis forestal. *Arboles* 2:141-144. Jan.1945. 99.8 Ar16

The excessive cutting of fuelwood and the forest situation in Colombia.

1264. U. S. TARIFF COMMISSION. Agricultural, pastoral, and forest industries in Colombia. Washington, 1949. 45 p. Maps.

173 T17Agc

Colombia

Reviews basic factors affecting development of forest industries. P.39 summarizes lumber and wood products, rubber and balata, tanning materials and dyewoods.

1265. URIBE RAMÍREZ, G. La campaña del árbol. Rev. Nac. de Agr. [Bogotá] 41(510/511):28-30. Oct./Nov.1947. 9.4 R32

Proposed organizations and laws to forward forestry in Colombia.

1266. URIBE RAMÍREZ, G., and BELTRAN, P. P. La Ley de Tierras perjudica la conservación de las reservas forestales de Colombia. Rev. Nac. de Agr. [Bogotá] 38(480):23-24. June 1944. 9.4 R32

Asociación de Amigos del Arbol considers the land law in relation to forest reserves.

1267. WYLIE, K. H. The agriculture of Colombia. USDA Foreign Agr. B. 1,160 p. Oct.1942. 1 F752F

Forest resources section, p.8-9.

ECUADOR

1268. ACOSTA SOLIS, M. Algunas consideraciones sobre la futura industria del papel en el Ecuador. Ecuador Dept. Forest. P.5,11 p. Oct.1949. 99.9 Ec9P

Also in Manabí, Ecuador, Consorcio de Cent. Agr. B. 11(60):27-34. Nov./Dec.1949. 9.5 M31

Some considerations of the future of the pulp and paper industry in Ecuador.

1269. ACOSTA SOLIS, M. Algunas consideraciones sobre la tierra ecuatoriana y su colonización. Quito, 1945. 20 p. 282.2 Ac7

Includes the place of timber development and forest products in colonizing the forested areas of Ecuador.

1270. ACOSTA SOLIS, M. Commercial possibilities of the forests of Ecuador -- mainly Esmeraldas Province. Trop. Woods 89:1-47. Mar.1947. 99.08 Y1Tr

After a physiographic description of the country as a whole, the author reviews agricultural conditions, and makes an analysis of forest composition. He estimates forested areas by provinces. Further section headings are: Forest exploitation; Economics of forest products in Ecuador; Reasons for locating a forest industry in Ecuador; Areas suitable for immediate exploitation; The forests of Esmeraldas Province; Labor and tools in Ecuador; Alphabetical checklist of the principal forest species of Ecuador.

1271. ACOSTA SOLIS, M. Contribuciones a la geobotánica ecuatoriana; anotaciones sobre la vegetación del norte de Quito desde Cotacollao y San Antonio hasta Río Guayllabamba. Quito, Universidad Central, 1942. 120 p. Ref. Illus. 457.4 Ac7

Also in Ecuador U. Cent. An. 67(313):5-83. Jan./Mar.1942. 516 Ec9
Contributions to Ecuadorian geobotany; notes about the vegetation north of Quito. Has English summary.

1272. ACOSTA SOLIS, M. Especies forestales y ornamentales leñosas aconsejadas para las regiones y climas del Ecuador. Ecuador Dept. Forest. P. 7,41 p. Dec.1949. 99.9 Ec9P

Forest tree species and ornamental woody plants deemed suitable for the regions and climates of Ecuador. Lists species by botanical names, common names, and gives notes on occurrence.

1273. ACOSTA SOLIS, M. El eucalipto en el Ecuador. Ed.2. Quito, Editorial "Ecuador", 1949. 47 p. Ref. Illus. 99.35 Ac7E

1274. ACOSTA SOLIS, M. The forests of Ecuador. Ann Arbor Mich. U., 1947. 18 p. 99.24 Ac7

Ecuador

1275. ACOSTA SOLIS, M. La gran riqueza forestal del Ecuador como mercado para EE.UU. Ecuador. Cám. Agr. Prim. Zona 4:58-59. Jan./Mar.1941. 9.5 Ec96

Discusses United States hardwood requirements and Ecuador's forests as a possible source of supply.

1276. ACOSTA SOLIS, M. Guía comercial maderera del Ecuador. Ecuador. Cám. Agr. Prim. Zona Rev. 4:170-179. Aug.-Oct.1941. 9.5 Ec96

Commercial timber guide, Ecuador.

1277. ACOSTA SOLIS, M. Maderas más conocidas y usadas en la Prov. de Esmeraldas (Ecuador). Maderil 14(167):13-16; (168):11-16. May-June 1946. 99.82 M26

Timbers best-known and used in the Province of Esmeraldas. There is a table of common and scientific names, as well as lists classified by properties and uses of timbers.

1278. ACOSTA SOLIS, M. Nature protection in Ecuador. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948: 328-331. 150 In82 No.4

1279. ACOSTA SOLIS, M. Nuevas contribuciones al conocimiento de la Provincia de Esmeraldas, I. Quito, 1944. 606 p. Ref. Illus. 280.165 Ac7

Includes chapters on forest vegetation and timbers, in addition to accounts of geography, climate, agriculture, and ethnology.

1280. ACOSTA SOLIS, M. Plan de organización del Instituto de Conservación y Fomento Forestal. Quito, 1949. 3 p. 99.9 Ec9PL

Organization plan for an Institute of Conservation and Forest Development in Ecuador.

1281. ACOSTA SOLIS, M. Plan sobre la protección y fomento forestal del Ecuador. Quito, Editorial "Ecuador," 1949. 45 p. 99.65 Ac7P1

A plan for the protection and development of Ecuador's forests.

1282. ACOSTA SOLIS, M. Por la protección y fomento forestal del Ecuador. Ed.2. Quito, Editorial "Ecuador," 1949. 40 p. Illus. 99.65 Ac7P

Protection and development of Ecuador's forests, specifying land and forest conditions in need of immediate attention.

1283. ACOSTA SOLIS, M. Principal timbers used in the Sierra del Ecuador. Trop. Woods 57:1-6. Mar.1939. 99.08 Y1Tr

1284. ACOSTA SOLIS, M. Productos forestales del Ecuador. Maderil 12(133):7-10,27-28. July 1939. 99.82 M26

Discussion of products. Lists woods known in international commerce, woods not known in international commerce, woods used only in Ecuador, species which have been introduced, and other species which would do well in Ecuador.

1285. ACOSTA SOLIS, M. La tagua [Phytelephas]. Quito, Ecuador, 1944. 37 p. Illus. 99.35 Ac7

Includes utilization in building.

1286. ACOSTA SOLIS, M. Vegetación y riqueza forestal de la Provincia de Esmeraldas (Ecuador). Maderil 14(164):11-14,25-28; (165): 13-16. Jan.,Mar.1942. 99.82 M26

Chiefly notes about outstanding tree species.

1287. ACOSTA SOLIS, M. Woods of Ecuador, I-II. Ann Arbor, Mich. U., 1947-48. 2 v. 457.4 Ac7W

I, Principal woods used in the Sierra; II, Principal woods used in the Western Region. Lists woods by scientific name, common name, and locality. The list represents a micro-slide collection prepared by the author. Another numbered list of woods and woody plants is in

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Flora [Quito] 7(17/20):7-77. Dec.1950. 450 F662

1288. AUBERT DE LA RUE, E. Quelques aspects de vegetation des Andes de l'Equateur. Soc. Natl. d'Acclim. et de Protect. de la Nature B. 95:57-66. Ref. Apr./June 1948. 410.9 P21

Some aspects of the vegetation of the Ecuadorian Andes.

1289. Balsa ECUADOR LUMBER CORPORATION. Balsa -- a madeira forte e leve. Fazenda 41(8):44-45. Illus. Aug.1946. 6 H11P

1290. BANDA C., F. Ecuador's balsa. Pan Amer. Union B. 77: 626-630. Illus. Nov.1943. 150.9 M76

1291. BANDA C., F. Ecuador's balsa goes to war. Agr. Amer. 3: 211-213. Illus. Nov.1943. 1 F752A

1292. BURBANO R., J. Monografía botánica de la Provincia de Imbabura. Flora [Ecuador] 1(2):23-39. Oct.1937. 450 F662

Describes vegetation zones and lists timber species occurring in forested regions.

1293. CAVE, M. S. Forest legislation in Ecuador. Washington, U. S. Off. of Inter-Amer. Aff., 1945. 9 p. Ref. Pan Amer. Union Libr.

Introduction deals with general forest conditions in Ecuador. A glossary of tree names is appended.

1294. CEVALLOS M., H. G. Observación del aspecto forestal maderero de Santo Domingo y Esmeraldas, con Misión Técnica Norteamericana. Ecuador. Cám. de Agr., Prim. Zona Rev. 6(53/55):16-31. Jan./Mar.1944. Pan Amer. Union Libr.

Forests and timbers of Santo Domingo and Esmeraldas, as observed during the tour of the U. S. Forest Service technical mission to Ecuador.

1295. DIELS, L. Beiträge zur kenntnis der vegetation und flora von Ecuador. Bibliot. Bot. 16,190 p. Ref. Map. 1937. 452.4 B47

Ecological description of vegetation zones, in addition to botanical listings of species.

1296. ECUADOR. MINISTERIO DE ECONOMIA. Informe a la nación 1948-1949. Quito, 1949. 144 p. 280.9 Ec94

Report of the Director of the Departamento Forestal, p.64-75.

1297. ESPINOSA, R. Algo sobre la destrucción de los suelos; la obra ruinoso del fuego. B. de Inform. Cient. Nac. 3(20/21):23-28. June/July 1949. 475 B633

Soil destruction in Ecuador; especially as observed in Zaruma Cantón, where forest fires have reduced a once-valuable timber resource

1298. FLETCHER, M. I. Balsa industry of Ecuador. Econ. Geog. 25(1):47-54. Illus. Map. Jan.1949. 278.8 Ec7

1299. FRANCKE, A. Die forstlichen verhältnisse von Ecuador. Z. f. Weltforstwirt. 5:452-453. Mar.1938. 99.8 Z35

Forest conditions in Ecuador.

1300. GARCIA, A., and ORELLANA, H. Problema de la conservación de los bosques y de la reforestación en el Ecuador. Manabí, Ecuador. Consorcio de Cent. Agr. B. 11(53):6-8. Jan./Mar.1948. 9.5 M31

1301. GARCIA SOLÓRZANO, A. Ecuador and its present natural resources. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948:426-443. Maps. 150 In82 No.4

One map delineates land-use areas, another the distribution of certain forest species. Charts, p.435-441, list principal woods, names, and general localities.

1302. GARCIA S., A. El problema de la conservación de suelos y de la reforestación en el Ecuador. Manabí, Ecuador. Consorcio de Cent. Agr. B. 12(61):48-54. Jan./Mar.1950. 9.5 M31

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1303. GREENHOUSE, S. The culture of the balsa tree in Ecuador. J. Forestry 33:870-876. Ref. Oct.1935. 99.8 F768
1304. GUAYAQUIL, ECUADOR. CHAMBER OF COMMERCE, and others. Report ... to His Excellency, Mr. Henry A. Wallace ... on decreased production of balsa-wood due to decision of the Board of Economic Warfare against Ecuadorian producers. Guayaquil, 1943. 8 p. 99.76 G93
Guayaquil Chamber of Agriculture and Chamber of Industries, joint authors. Text also in Spanish.
1305. HORN, E. F. Forest resources and forest types of the Province of El Oro, Ecuador. Carib. Forester 6:209-218. July 1945. 1.9622 T2C23
Spanish and French summaries.
1306. HORN, E. F. Forest resources of western Ecuador. Agr. Amer. 7:46-49. Illus. Mar.1947. 1 F752A
1307. HORN, E. F. Growing balsa [*Ochroma lagopus*] in western Ecuador. Carib. Forester 7:285-295. Oct.1946. 1.9622 T2C23
Spanish and French summaries.
1308. LITTLE, E. L. A collection of tree specimens from western Ecuador. Carib. Forester 9:215-298. Ref. Map. July 1948. 1.9622 T2C23
Spanish and French summaries. Includes general forest description and notes on occurrence of individual trees.
1309. LITTLE, E. L. Does mahogany (*Swietenia*) occur in Ecuador? Trop. Woods 92:41-43. Dec.1947. 99.08 Y1Tr
1310. LITTLE, E. L. Trees in Ecuador. Foreign Agr. 12:54-59. Illus. Mar.1948. 1.9 Ex7For
1311. MCCLURE, F. A. Bamboo in Ecuador's highlands. Agr. Amer. 6:164-167. Oct.1946. 1 F752A
Discusses utilization of the native species and their occurrence.
1312. MCCLURE, F. A. Bamboo in Ecuador's lowlands. Agr. Amer. 5:190-192,194. Oct.1945. 1 F752A
Chiefly *Guadua angustifolia* and the uses to which it is adapted.
1313. MARRERO, J. El cultivo del eucalipto en la Sierra del Ecuador. Carib. Forester 7:57-69. Jan.1946. 1.9622 T2C23
English and French summaries. Includes utilization aspects.
1314. MARRERO, J. Utilización de la caña Guadúa en Ecuador. Carib. Forester 5:145-151. Apr.1944. 1.9622 T2C23
English summary. Illustrations show growth habit, and uses of the split and round canes in construction.
1315. MILLE, L. Nociones de geografía botánica aplicadas al Ecuador. Ed.2. Quito, 1922. 72 p. 457.4 M61
Ideas on geographic botany applied to Ecuador.
1316. MOLESTINA O., E. Reseña agrícola del Ecuador. Chron. Bot. 7:167-169. July 1942. 450 C46
1317. NOTES on Ecuadorian timbers. Timber Devlpmt. Assoc., Timber Inform. Ref. 35,5 p. 1948. 99.9 T48Tr
Timbers are listed by common names. Scientific names, notes on properties, and uses are given.
1318. ORELLANA B., R. La balsa; arbol de la floresta ecuatoriana. Banco Hipotecario del Ecuador B. (Epoca 2) 5(9):37-59. Illus. Dec.1941. 281.8 B222
History of the wood; regions of production; economic importance; characteristics and uses; conditions affecting growth of trees; associated plants; felling; seasoning; commercial grading; enemies and defects; statistics of exports; cost of reforestation; laws for conservation.

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1319. PAREDES C., A. Anotaciones acerca de la vegetación y la flora de la hoya de Tulcán. Ecuador. U. Cent. Inst. Bot. B. 8, i.e. 6(8): 39-56. Illus. July 1949. 451 Ec9

Notes about the vegetation and flora of the Tulcán River valley.

1320. PAREDES C., A. Especies industriales de la flora ecuatoriana. B. Inform. Cien. Nac. 3:164-176. July/Aug. 1950. 475 B633
Chiefly timber trees.

1321. POPENOE, W., and ANTHONY, H. E. Ecuador. In Naturalist's guide to the Americas, p.662-674. Ref. Baltimore, Williams & Wilkins, 1926. 409 Ec7

1322. RIMBACH, A. The forests of Ecuador. Trop. Woods 31:1-9. Sept. 1932. 99.08 Y1Tr

Describes the forests in three regions: The Coast Region, the Oriental Region and the Interandine (Sierra) Region. A checklist of common and scientific names of trees is appended.

1323. SAUNDERS, L. F. Sawmilling in Ecuador. Timberman 22 (8):158-159. June 1921. 99.81 T484

1324. SHINOL, J. W. Forest resources, lumber industries, and trade in Ecuador. U. S. Off. of Internatl. Trade, Indus. Ref. Serv. Pt. 6, Forest Prod. 4(51), 14 p. Illus. Sept. 1946. 157.54 In236

Contents: Regional descriptions; ownership and practices; commercial development; commercial species; the forest industry; production; logging methods and operations; the sawmill industry; consumption; laws affecting the sawmill industry; trade.

1325. SODIRO, PADRE L. Ojeada general sobre la vegetación ecuatoriana. Ecuador. U. Cent. Inst. Bot. B. 5(6/7):192-247. June 1947. 451 Ec9

A general review of Ecuador's vegetation zones.

1326. SVENSON, H. K. The vegetation of Ecuador, a brief review. In Plants and Plant Science in Latin America, p.304-306. Waltham, Mass., Chron. Bot., 1945. 453 V58

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1327. TEESDALE, L. V. Production, seasoning and shipping of balsa. Timberman 44(11):38,40,42-43; (12):37-38,40,44; 45(1):20,22-23,26,28. Illus. Sept.-Nov. 1943. 99.81 T484

Pt. 1, Log production; Pt. 2, Milling methods; Pt. 3, Kiln seasoning.

1328. TEESDALE, L. V. Timber of Ecuador best suited for wooden ships. Madison, Wis., U. S. Forest Serv., Forest Prod. Lab., 1944 54 p. Illus. 1.962 F6T48

Part of a general report of the Forest Service mission to Ecuador, item 1330 in this bibliography.

1329. TEESDALE, L. V. Wooden boats of Ecuador. Amer. Forests 52:410-412,444-445. Illus. Sept. 1946. 99.8 F762

Discusses Ecuadorian timber species utilized, and the properties for which these timbers are valued.

1330. U. S. FOREST SERV. The forests of western and central Ecuador. Washington, 1947. 134 p. Ref. Illus. Map. 1.962 A2F7627

L. R. Holdridge, L. V. Teesdale, J. E. Myer, E. L. Little, E. F. Horn, and J. Marrero, joint authors.

U. S. Office of the Coordinator of Inter-American Affairs cooperating.

Partial contents: The country; The forests; Forest exploitation; Future forest use and management.

1331. U. S. OFF. OF FOREIGN AGRICULTURAL RELATIONS. Ecuador: agricultural, pastoral and forest industries. Washington, 1945. 46 p. 1.943 Ec9

Ecuador

Forest products and industries, p.33-43.

1332. WIGGINS, I. L. The Australian blue gum (*Eucalyptus globulus* Labill.) in Ecuador. *Lloydia* 9:310-314. Dec.1946. 442.8 L77
Includes wood utilization.

1333. WYLIE, K. H. Ecuador's forests and the War. *Foreign Agr.* 10:75-80. May 1946. 1.9 Ec7For

In addition to timber and balsa, discusses rubber, cinchona, tagua, kapok, and tanning materials.

THE GUIANAS

1334. BEEBE, W., and GLEASON, H. A. The Guianas. In *Naturalist's guide to the Americas*, p.649-662. Baltimore, Williams & Wilkins, 1926. 409 Ec7

1335. DEMERARAGREENHEART. Amsterdam Kolon. Inst., Afd. Handelsmus. 17:41-48. 1937. 503 Am82

Discussion of the greenhearts [*Ocotea* and *Tabebuia*?] of British Guiana and Surinam.

1336. FIDEL, C. Les trois Guyanes; française, néerlandaise, britannique. *Rev. Internatl. des Prod. Colon.* 4:303-313. Dec.1929. 286.8 R326

Summary comparisons of the situation and economy (including the forest economy) of the three Guianas.

1337. LARDNER, G. B. S. Timbers of British and Dutch Guiana. *Wood* [London] 13:280-282. Illus. Oct.1948. 99.82 W855

1338. SMITH, A. C. The vegetation of the Guianas, a brief review. In *Plants and Plant Science in Latin America*, p.295-297. Ref. Waltham, Mass., Chron. Bot., 1945. 453 V58

Also in *Chron. Bot.* 6:449-452. Ref. Map. Dec.1951. 450 C46

1339. SPOON, W. Toepassing van walaba of bijlhout. Amsterdam Indisch Inst., Afd. Handelsmus. Ber. 218, 11 p. 1947. 503 Am82B

Applications for walaba [*Eperua*]. Reviews occurrence and uses in Surinam and the other Guianas, particularly with regard to tests for use as pulpwood, fuelwood, distillation products, and a tannin source.

BRITISH GUIANA

1340. AITKEN, J. B. The wallabas of British Guiana. *Trop. Woods* 23:1-5. Sept.1930. 99.08 Y1Tr

Discusses occurrence and accessibility of the *Eperua* wallabas in British Guiana forests. Properties include tests for usefulness as pulp, fuel, and charcoal.

1341. BRADT, G. W. The tropical rain forest of British Guiana. *Mich. Agr.* 8(8):3,9. May 1929. 276.8 M582

1342. BRASNETT, N. V. Some problems of sustained yield management in the colonies. *Empire Forestry Rev.* 29:9-12. Mar.1950. 99.8 Em72

Includes a discussion of management plans in British Guiana.

1343. BRITISH GUIANA. FOREST DEPT. Empire forests and the war; British Guiana. London, Brit. Empire Forestry Conf., 1947. 48 p. 99.65 B77

1344. BRITISH GUIANA. FOREST DEPT. Report, 1925-1949. Georgetown, Demerara, 1926-50. 15 v. 99.9 B777

Preceded by reports of British Guiana. Institute of Mines and Forests (294.9 B77).

Guianas -- British Guiana

1345. *BRITISH GUIANA. FOREST DEPT. Timber supply, consumption and marketing in British Guiana. Leg. Council Paper 5. 1935.

A statement prepared for the 4th British Empire Forestry Conference, South Africa, 1935.

1346. BRITISH GUIANA. FOREST DEPT. Timbers of British Guiana; notes on four timbers recently tested at the Forest Products Research Laboratory, Princes Risborough: Greenheart [*Ocotea rodiaei*], wallaba [*Eperua falcata*], purpleheart [*Peltogyne pubescens*], crabwood [*Carapa guianensis*]. Georgetown, Demerara, 1933. 10 p. 99.79 B773

Also discusses timber-producing areas of the Colony, methods of extraction, and utilization.

1347. BRITISH GUIANA. INTERIOR DEVELOPMENT COMMITTEE. Handbook of natural resources of British Guiana. Georgetown, Demerara, 1946. 243 p. Illus. Maps. 280.166 B77

Contents, by various authors: Physical characteristics; Climatological characteristics; Mineral resources; Forest resources; Soil resources; Water supply resources; Power resources; Wild life resources; Notes on problems affecting industrialization of interior. An index is appended. For separate publication of Forest resources section, see item 1373, this bibliography.

1348. BRITISH GUIANA woods for paper-making, 1-2. Gt. Brit. Imper. Inst. B. 22:14-26; 26:4-17. 1924,1928. 26 G79

Paper-making qualities of commonly occurring timbers, likely to provide wood waste when the forests are exploited. A table in Pt. 1, p.15, presents information on nomenclature and occurrence of the timber trees tested.

1349. CASE, G. O. British Guiana timbers. London, Metcalfe & Cooper, 1934. 73 p. Illus. 99.79 C26

Contents: Description of British Guiana and the forests; Accessibility of timber and methods of exploitation; Estimated cost of logging under general exploitation; Hydro electric power; Labour available; Seasoning of timber; Market considerations; Comparison of British Guiana forests with other forests; General description of most important British Guiana timbers; Strength of British Guiana timbers; Uses of British Guiana timbers.

1350. *CASE, G. O. Report on possibilities of manufacturing veneers and plywood in British Guiana. Georgetown, Brit. Guiana Secondary & Minor Indus. Bd., 1947. 9 p.

1351. CHARCOAL from British Guiana. Gt. Brit. Imper. Inst. B. 28:138-146. July 1930. 26 G79

1352. CLARK, H. S. Use of amaranth [*Peltogyne pubescens* from British Guiana, also known as purpleheart] for interior trim and flooring. Trop. Woods 25:1-3. Mar.1931. 99.08 Y1Tr

Finishing characteristics of the wood.

1353. CREGAN, K. H. The forests of British Guiana. Amer. Forests 41:626-629,662. Illus. Nov.1935. 99.8 F762

1354. DANKS, F. S., and HUGHES, J. H. Notes on British Guiana timbers. U. S. Off. Tech. Serv. PB Rpt. 68042, 28 p. 1945. 157.8 R29

1355. DAVIS, T. A. W. Notes on an expedition to the Rupununi District, British Guiana. Kew Misc. Inform. B. 10:526-530. 1936.

451 K51B

Description of forests visited with the chief objective of studying balata sources.

*Not examined.

Guianas -- British Guiana

1356. DAVIS, T. A. W. Report on the balata industry in British Guiana, with special reference to the Rupununi District. Georgetown, Demerara, 1933. 30 p. 77 D29

Contents: Description of the locality; The silviculture of the balata; The exploitation of the balata forests; Production and economic importance of the industry; A discussion of certain factors affecting the control of the industry; The effect of the regulations controlling the balata industry and recommendations for their modification.

1357. DAVIS, T. A. W. Some observations on the forests of the Northwest District. Brit. Guiana Agr. J. 11:157-166. Map. Sept. 1929. 9.6 B774

1358. DAVIS, T. A. W., and RICHARDS, P. W. The vegetation of Moraballi Creek, British Guiana; an ecological study of a limited area of tropical rain forest, I-II. J. Ecol. 21:350-384; 22:106-155. Ref. Illus. Aug.1933, Feb.1934. 450 J829

1359. EMORY, L. T. Timber resources of British Guiana. Forest Leaves 20:186-188. Dec.1926. 99.8 F763

Also comments on actual operating experiences.

1360. EXPLOITATION of the forests of British Guiana. Empire Forestry Rev. 29:4-6. Mar.1950. 99.8 Em72

Emphasizes the problems of utilizing secondary timber species. Markets as a key to successful operation.

1361. FANSHAWE, D. B. Forest products of British Guiana. 1, Principal timbers. Brit. Guiana Forest Dept. Forestry B. (n. s.) 1, 101 p. Ref. 1948. 99.9 B777F

Description of principal trees and timbers, p.10-81; tree frequency and wood use classification tables, p.82-91; glossary of scientific names, p.92-99.

1362. FANSHAWE, D. B. Forest products of British Guiana. 2, Minor forest products. Brit. Guiana Forest Dept. Forestry B. (n. s.) 2, 81 p. 1950. 99.9 B777F

Includes tannin plants, resins, and balata.

1363. FANSHAWE, D. B. Studies of the trees of British Guiana. 5 Pts. Trop. Woods 90:30-34; 92:25-40; 93:1-28. Ref. June, Dec.1947; Mar.1948. 99.08 Y1Tr

1, Crabwood (*Carapa guianensis*); 2, Greenheart (*Ocotea rodiaei*); 3, Wallaba (*Eperua* spp.); 4, Purpleheart (*Peltogyne* spp.); 5, Mora (*Mora excelsa*). For each, discusses botany and ecology, silviculture, properties of wood and utilization. Some comments on trade status.

1364. FRANCIS, W., and MULLIN, J., eds. The British Guiana handbook. Georgetown, 1923. 300 p. Illus. 255.6 B34

Forests and forest industries, p.92-105.

1365. GILMOUR, J. D. Exploitation of the forests of British Guiana. Empire Forestry Rev. 28:131-136. June 1949. 99.8 Em72

1366. GRAHAM, E. H. Flora of the Kartabo Region, British Guiana. Carnegie Mus., Pittsburgh, Ann. 22:17-292. Ref. Illus. Feb.1,1934. 500 P68A

Forest vegetation section, p.40-50, analyzes six forest plant associations.

1367. HAMAN, M., and WOOD, B. R. The forests of British Guiana. Trop. Woods 15:1-13. Sept.1928. 99.08 Y1Tr

Describes four plant zones, closely correlated with soils, water, and climate. Appends a list of forest products from typical species, and a checklist of common and scientific tree names.

1368. HINGSTON, R. W. G. The Oxford University Expedition to British Guiana. Geog. J. 76:1-24. Illus. July 1930. 472 G29

Describes forest vegetation. Comment by forest officer T. A. W. Davis, p.21-22.

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1369. HOHENKERK, L. S. Forestry in British Guiana. Statement prepared for the British Empire Forestry Conference, London, July 1920. London, H. M. Stationery Off., 1920. 32 p. Ref. 99.24 B773
Bound with the British Guiana Forest Conservator's statement to the 1928 Conference, by B. R. Wood.
1370. HOHENKERK, L. S. The forests of British Guiana. Empire Forestry J. 3:169-179. Illus. Dec.1924. 99.8 Em72
1371. HOHENKERK, L. S. A review of the timber industry of British Guiana. Georgetown, Demerara, 1923. 22 p. 99.79 H68
Partial contents: Area of forests; composition of forests; the timber industry; greenheart -- logging, uses, and trade; mora and other woods; utilization for sleepers, paving blocks, mine timbers, and pulp; problems connected with exploiting the forests of British Guiana; a list of common trees, with average number per acre.
1372. HOLDRIDGE, D. An investigation of the prospect for white settlement in British Guiana. Geog. Rev. 29:622-642. Illus. Oct. 1939. 500 Am35G
Includes aerial photographs of the interior area under consideration. Discusses shifting agriculture and soil indicators.
1373. HUGHES, J. H. Forest resources of British Guiana; being section 5 of Handbook of natural resources of British Guiana, comp. under the direction of the Interior Development Committee of British Guiana. Georgetown, Demerara, Daily Chron., 1947. 191 p. Illus. Map. 99.24 H87
Contents: British Guiana forests; The accessible commercial forests of British Guiana; The description of several trees and their wood; Forest industries.
See also item 1347 in this bibliography.
1374. HUNT, L. G. Colonial timbers. Gt. Brit. Colon. Devlpmt. Corp., Colon. Devlpmt. 1(1):10-11. Illus. Spring 1950. 280.9 G7933C
Briefly describes operations in British Guiana being forwarded by the Colonial Development Corporation.
1375. MYERS, J. G. Savannah and forest vegetation of the interior Guiana plateau. J. Ecol. 24:162-184. Ref. Feb.1936. 450 J829
1376. *OLIPHANT, F. M. Commercial possibilities and development of the forests of British Guiana. Leg. Council Paper 20. 1936.
1377. PULP and paper developments in British Guiana. U. S. Off. of Internat'l. Trade, Indus. Ref. Serv. Pt. 6, Forest Prod. 4(62), 2 p. Dec.1946. 157.54 In236
Digest of a report by R. J. Bay. Gives reasons for lack of developing domestic pulpwood resources, especially wallaba [*Eperua falcata*].
1378. RECORD, S. J. Jacaranda copaia in British Guiana. Trop. Woods 3:6-8. Sept.1925. 99.08 Y1Tr
1379. SMITH, A. C. Botanical exploration of interior British Guiana. Trop. Woods 57:6-11. Mar.1939. 99.08 Y1Tr
Observes character and composition of forests in the unexplored interior and notes certain differences between it and the typical Guiana forest known nearer the coast.
1380. SWABEY, C. Note on the development of forest policy in British Guiana. Timehri 29:27-35. Aug.1950. 9.6 T48
1381. SWABEY, C. Timber handling in British Guiana. Wood [London] 15:370-371. Illus. Oct.1950. 99.82 W855
1382. WOOD, B. R. Greenheart [*Ocotea rodiaei*]. Indian Forester 53:54-56. Jan.1927. 99.8 In2
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1383. WOOD, B. R. Report by the Conservator of Forests on the valuation of the forests of the Bartica-Kaburi area. Georgetown, Demerara, 1926. 25 p. Map. 99.24 B773R

Describes principal forest types and the silviculture of principal species; survey and valuation of the Bartica-Kaburi area, with suggestions for exploitation. A table in the Appendix lists tree species and their average incidence per acre.

FRENCH GUIANA

1384. BAZIRE, J. La forêt guyanaise. Figaro Artistique Illus. 8, (spec. no.):30-32. Illus. Aug./Sept.1931. Libr. Cong.

1385. BÉNA, P. L'exploitation forestière doit servir de tremplin à l'essor économique du Département Français de la Guyane. Bois et Forêts des Trop. 11:251-268. Illus. Third Q. 1949. 99.8 B632

Forestry in French Guiana. Vegetation zones, administration of the Colony's economy, forest exploitation, wood transport, forest industries, and wood trade.

1386. BENOIST, R. Les bois de la Guyane française. Arch. de Bot. 5, Mem. 1, 292 p. Ref. Illus. 1931. 450 Ar25M

Timbers of French Guiana, with a list of vernacular names and notes on utilization. Description of the forests, p.5-11.

1387. BENOIST, R. La forêt et les bois de la Guyane française. Lyon, Soc. Linnéene Ann. 71(1924):37-44. 1925. 505 L992

1388. BENOIST, R. La végétation de la Guyane française. Soc. Bot. de France B. 71:1169-1177; 72:1066-1078. 1924-25. 451 F84B

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1389. BERTIN, A. Les bois coloniaux, leur utilisation. Paris, Larose, 1920? 51 p. 99.27 B46

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1390. BERTIN, A., BETTENFELD, M., and BENOIST, R. Les bois de la Guyane française et du Brésil. France Min. de La Guerre, Mission d'Etudes Forest. 5, 321 p. Illus. 1920. 99.27 F84

Timbers of French Guiana and of Brazil. Contents: 1, The Guiana forest; 2, Outlook; 3, Botanical study and wood technology; 4, Industrial classification of woods; classification by comparison with European timbers; 5, Botanical survey; 6, Actual methods of forest exploitation; 7, Suitable means of creating a forest industry in Guiana; 8, Colonial timbers and their utilization; development of colonial timbers and safeguarding French forests. App. 1, Tables of wood names, properties and uses; App. 2, The timbers of Brazil, by M. Bettenfeld, including a comparison of the forests of Brazil and Africa, and classification and properties of woods used most in Brazil.

1391. BETTS, A. W. Timber hunting in French Guiana. Veneers 20(2):22-23; (3):22-23; (4):22-23. Illus. Feb.-Apr.1926. 99.82 V55

1392. LES BOIS et la Guyane française. Monde Colon. Illus. 6(61): 219. Sept.1928. 280.8 M74

1393. CHATELAIN, G. L'exploitation de bois de rose en Guyane française. L'Agron. Colon. 24:133-137; (211):16-21. May, July 1935. 26 Ag812

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1394. *CHATELAIN, G. L'exploitation forestière à la Guyane française. Assoc. Colon.-Sci. [Paris] Actes & Compt. Rend. 8:217-222. Dec.1932.

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1395. CHEVALIER, A., and NORMAND, D. Forêts vierges et bois coloniaux. Paris, Presses Universitaires de France, 1946. 127 p. Ref. 99.25 C42

Virgin forests and colonial timbers. Includes the forests and timbers of French Guiana, with notes on their utilization and management.

1396. COMITE NATIONAL DES BOIS TROPICAUX. Nos bois tropicaux. Paris, 1949. 30 p. 99.79 C73

Includes notes on the utilization of commercial timbers from French Guiana.

1397. DEMOUGEOT, M. Les bois de la Guyane française: l'angelique et ses usages. Rev. Internatl. du Bois 3:527-534,537-538. Dec. 1936. 99.8 R326

Dicorynia paraensis and its uses.

1398. *DEMOUGEOT, M. Les bois de la Guyane française: le manil et le parcouril. Rev. Internatl. du Bois 1(11):54-59. Nov.1934.

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1399. DEMOUGEOT, M. Les bois de la Guyane: le teck [Dicorynia paraensis]. Rev. Internatl. des Prod. Colon. 4:24-28. Jan.1929. 286.8 R326

1400. DEMOUGEOT, M. Les bois de tonnellerie. Rev. Internatl. des Prod. Colon. 4:327-329. Dec.1929. 286.8 R326

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1402. DEVEZ, G. Les plantes utiles et bois industriels de la Guyane. L'Agr. Pratique des Pays Chauds 3 (n. s.):133-148,303-314. Apr.,June 1932. 26 Ag81

Classes industrial woods by uses, then lists them by common name, with botanical notes and utilization notes. Includes the balata-producers.

1403. EVOLUTION et possibilités de la production forestière de la Guyane. Rev. Internatl. du Bois 13:41-43. Feb.1946. 99.8 R326

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Exploitation of Guiana's forests for timber, bois de rose, and balata.

1404. LA GUYANE française. France Agence Gén. des Colon. B. 20:743-757,927-952. Illus. May-June/July 1927. 260 C71B

Forests and forest products, p.933-942.

1405. HEIM DE BALSAC, F. Contribution à l'étude des écorces tannifères de la Guyane française. France. Agence Gén. des Colon. B. 22:36-48,119-137,340-368. Jan.-Feb.,Apr.1929. 260 C71B

A. Deforge, H. Heim de Balsac, and L. Lefèvre collaborating.

Tannin sources of French Guiana. 23 species are analyzed, with discussions of tree occurrence and wood utilization.

1406. LAPIE, G. Les forêts des colonies françaises. France. Ecole Natl. des Eaux et Forêts Ann. 2:107-136. Ref. 1928. 99.9 F845

The forests of French Guiana, p.128-130.

1407. LECOMTE, H. Les bois coloniaux. Paris, Armand Colin, 1923. 194 p. Ref. 99.79 L49B

French colonial woods. Guiana, p.150-153, with certain timbers

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discussed in chapters on different kinds of utilization.

1408. MARCHENAY, L. La Guyane française: terre d'avenir. Rev. Internatl. du Bois 13:198-201. Dec.1946. 99.8 R326

Forests and forest industries of French Guiana; their future.

1409. MÉNIAUD, J. L'exploitation forestière en Guyane française. Rev. Internatl. de Prod. Colon. 4(48):320-326. Illus. Dec.1929. 286.8 R326

Similar title in France Agence Gén. des Colon. B. 22:955-965. Sept. 1929. 260 C71B

Includes regulation of exploitation, labor problems, principal commercial species, and a discussion of the future of forest exploitation in French Guiana. An illustrated appendix contains pictures of forests and lumbering operations, p. I-IV.

1410. MÉNIAUD, J. Nos bois coloniaux. Paris, France, Agence Général des Colonies, 1931. 286 p. Illus. 99.27 M52N

Commercial woods of the French colonies, with scattered information on French Guiana. A forest map, p.134a; forest administration and other comments, p.371-374; botanical, technological, and commercial information regarding specific timbers, such as *Dicorynia*, *Qualea*, *Ocotea*, and *Symphonia*.

1411. POULALION, M. Palétuvier blanc dans les industries de tannerie, tonnellerie et papeterie. Rev. Internatl. des Prod. Colon. 4: 333-336. Dec.1929. 286.8 R326

An interview with an administrator of French Guiana regarding the possibilities of mangrove as a tannin source, as cooperage stock, and as pulpwood.

1412. PREISSIG, R. Les bois de la Guyane. Rev. Internatl. des Prod. Colon. 3:32-33. Jan.1928. 286.8 R326

The need to diversify and expand utilization of Guiana timbers beyond the cabinet wood export stage.

1413. RAIBAUDI, M. Le bois de rose. Rev. Internatl. des Prod. Colon. 4:330-332. Dec.1929. 286.8 R326

Aniba rosaeodora in French Guiana.

1414. RAZOUS, P. Le commerce des bois en France et dans les pays de l'Union Française d'Amérique. Bois et Scieries 55:118-121. Feb.3,1949. 99.81 B632

Timber commerce in French Guiana, p.119-120.

1415. RENAUD, M. Contribution a l'étude des bois de la Guyane française. France. Agence Gén. des Colon. B. 25:970-1031; 1120-1177; 1265-1308; 1372-1434. Illus. June-Sept.1932. 260 C71B

An account of the forests and forest industries of French Guiana, in addition to descriptions of principal timbers.

1416. RENAUD, M. Etude de quelques bois de la Guyane. Paris, J. d'Ameublement, 1932. 92 p. 99.31 R29

1417. *RIQUEZAS florestais da Guiana, Martinica e Guadelupe. Bras. Madeireiro 5(58):21-25. Illus. 1949.

The forest wealth of French Guiana, Martinique, and Guadelupe.

1418. SIRRETTA. La forêt guyanaise. Quinz. Natl. de la Prod. Agr. d'Outre-Mer 9:123-129. 1931. (Congrès de la Production Forestière Coloniale et Nord Africaine.) 5 Q4

1419. STONE, H. Les bois utiles de la Guyane française. Marseille Mus. Colon. An. 24(2):39-135; 25(3):3-159; 26(2):3-68; 28(2):1-98; 28 (sup.):1-37. 1917-24. 99.79 St6B

Useful timbers of French Guiana. Supplement is an index to common and scientific names.

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1420. VIDAL, L. Essai de fabrication de papier avec le bois dit palétuvier blanc [*Avicennia marina*] de Guyane. Rev. Internatl. du Bois 1(6/7):25-29. June/July 1934. 99.8 R326

A pulping test indicates some of the limitations of this plant.

1421. WOLOWITCH, D. Ressources forestières de la Guyane française. Bois et Forêts des Trop. 7:222-226. Map. Third Q. 1948. 99.8 B632

Describes the known forests in a general way, and discusses the practicability of exploitation.

SURINAM (Dutch Guiana)

1422. BURGER, D. H. Bos en bosbeheer in Suriname. Landbouwk. Tijdschr. 60:170-173. May 1948. 105.2 Or3

Forests and forestry in Surinam.

1423. CRUISER, C. A. Seeking crabwood in Dutch Guiana. Veneers 21(11):18-19. Nov.1927. 99.82 V55

Carapa guianensis.

1424. DIJKMANS, M. A. F. Bosexploratie en -research ter activering van het Surinaamse bos. Tectona 40:36-50. Mar.1950. 99.8 B65

Forest investigations and research for the development of Surinam's forest.

1425. EYMA, P. J. The Polygonaceae, Guttiferae and Lecythidaceae of Surinam. Amsterdam, de Bussy, 1932. 223 p. Ref. Illus. 457.5 Ey5

Chiefly botanical, with notes on the distribution of species. Includes brief remarks on wood uses, edible products, chemical and medicinal products, p.86-92; and an index to scientific and common names of species within these families which contain several important Surinam timber trees.

1426. FRANCKE, A. Die holz-und forstwirtschaft in Surinam Kolonforst. Mitt. 2:406-407. Mar.1940. 99.9 K83

Lumbering and forestry in Surinam.

1427. GEIJSKES, D. C. Plants of the Surinam coastland; some observations on the littoral vegetation of Dutch Guiana. N. Y. Bot. Gard J. 46:229-236. Oct.1945. 451 N48J

Includes the forest vegetation of sand reefs and swamps.

1428. GONGGRYP, J. W., and BURGER, D. Bosbouwkundige studiën over Surinam (Studies about forestry in Surinam). Fonds Landb. Explortbur. P. 32, 262 p. Ref. Illus. 1948. 12 F73

Chapter summaries in English. Extensive bibliography, p.212-257.

Contents: The forests of Surinam; The quantity of timber; Forest byproducts; Damaging influences; Management; Recommendations; Index of forest tree species.

1429. GONGGRIJP, J. W. On bleeding balata. Georgetown, Demerara, 1923. 12 p. (Brit. Guiana Government Notice 53.) 99.77 G58

Balata bleeding practices in the Guianas and Venezuela. Discusses legislation and general economy, with emphasis on the author's experimental work in Surinam.

1430. GONGGRIJP, J. W. Over Demerara greenheart, manbarklak en een nieuwe tegen paalworm bestande houtsort. West Indië, Landbouwk. Tijdschr. v. Suriname en Curaçao 6(4):3-10. Sept.1921. 9.6 L23

Ocotea rodiaei and *Eschweilera*.

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1431. GONGGRYP, J. W. Quelques remarques sur l'emploi d'essences exotiques et indigènes dans la sylviculture tropicale. Bois et Forêts des Trop. 7:251-257. Illus. Third Q. 1948. 99.8 B632

Some remarks on using exotic and indigenous species in tropical silviculture. Based chiefly on the author's observations in Surinam, where, after many years' absence, he noted the regeneration of native species.

1432. GONGGRIJP, L. Boschexploratie in Suriname. Surinam Dept. Landbouw, Nijverheid en Handel, B. 48, 100 p. Ref. Maps. Mar. 1925. 9.6 D95

Forest investigations and surveys in Surinam.

1433. JUNKER, L. De toekomst van de houtexploitatie in Suriname. West-Indische Gids 28 i. e. 27:69-88. Ref. Mar. 1946. Libr. Cong.

Future of lumbering and forestry in Surinam. Includes historical review.

1434. KLUGE, H. C. Curious loggers of the world: the boschneger of Suriname. Hardwood Rec. 55(10):18-20, 22. Illus. Sept. 10, 1923. 99.81 H225

1435. KONING, DE La sylviculture dans les Pays-bas et dans les colonies néerlandaises, 3. Indes occidentales. Rev. des Eaux et Forêts 64:75-81. Feb. 1926. 99.8 R322

Includes forests and forestry in Surinam.

1436. KOSTERMANS, A. J. G. H. Studies in South American Malpighiaceae, Lauraceae, and Hernandiaceae, especially in Suriname. Utrecht U. Bot. Mus. Meded. 25, 70 p. Ref. 1936. 451 Ut7

Also separate, 457.5 K84

Geobotanical remarks, p. 49-55. Useful plants, including timbers, p. 56-65.

1437. LANJOUW, J. The Euphorbiaceae of Surinam. Amsterdam, de Bussy, 1931. 2 pts. 452.3 L27

Pt. 1, 84 p. Ref. Maps. Utility and use by natives, p. 51-69. Geobotanical remarks, p. 70-84.

1438. MAGUIRE, B. The first botanical exploration of Table Mountain in Surinam; a report of the New York Botanical Garden's Tropical Expedition of 1944. I-II. N. Y. Bot. Gard. J. 46:253-272, 277-287. Illus. Nov.-Dec. 1945. 451 N48J

1439. NYSTROM, J. W. Surinam; a geographic study. New York, Netherlands Inform. Bur., 1942? 109 p. Ref. Illus. Maps. 278.166 N99

Forest industry, p. 96, 98-99.

1440. PERCIVAL, T. B. The Mora forests of Surinam. Hardwood Rec. 53(1):38, 43. Illus. Apr. 25, 1922. 99.81 H225

1441. PFEIFFER, J. P. De houtsoorten van Suriname. Amsterdam, Kolon. Inst., Afd. Handelsmus. 6, Meded. 22, 2 v. Ref. Illus. 1926-27. 503 Am82

Woods of Surinam. Chiefly wood technology. Contains notes on utilization, common names, and botany.

1442. *PFEIFFER, J. P. Rapport aangaande de wijze, waarop de regering in Nederland en het gouvernement van Suriname in de toekomst werkzaam zullen kunnen zijn ter bevordering van den houtuitvoer van Suriname. 's-Gravenhage, Algemeene Landsdrukkerij, 1929. 110 p. Maps.

Forests of Surinam, with particular reference to their industrial development.

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1443. PULLE, A. A. Explorações botânicas de Surinam. Primeira Reunião Sul-Amer. de Bot., An. 1:239-248. 1939. 451 R31

In addition to describing the background and present condition of botanical knowledge of Surinam, describes the vegetation of explored areas. Pages cited above are an English translation preceding the Portuguese version.

1444. SNELLEN, E. De houtcap in Suriname. Tijdschr. v. Econ. Geog. 25:341-353. Nov.1934. 280.8 T44

1445. SPOON, W. Dwarssliggers uit Suriname. Nederland. Boschbouw Tijdschr. 18:33-35. Feb.1946. 99.8 N28

Railway ties from Surinam. Also issued as K. Ver. Indisch Inst. Afd. Handelsmus. Ber. 209, 3 p. Illus. 1946, with an English summary. 503 Am82B

1446. SPOON, W. De hout-exploitatie in Suriname tijdens den oorlog. K. Ver. Indisch Inst. Afd. Handelsmus. Ber. 207,5 p. 1946. 503 Am82B

Timber exploitation in Surinam during the war. Emphasis is on trade conditions, but commercial species, their uses, and lumbering developments are indicated. Has English summary.

1447. SPOON, W. Houtverkoling in overzeesch Nederland voor metallurgische doeleinden, 1-2. Nederland. Boschbouw-Tijdschr. 18: 273-280; 19:17-26. Dec.1946-Jan.1947. 99.8 N28

Charcoal preparation in Netherlands overseas territories, for metallurgical use. Has English summary, and includes Surinam timber species tested for their suitability.

1448. SPOON, W. Surinaamsch hout voor fineer en triplex. Amsterdam, Kolon. Inst., Afdeeling Handelsmus. Ber. 191,8 p. Illus. 1943? 503 Am82B

Surinam wood for veneer and plywood. Has English summary.

1449. STAHEL, G. The forests of Surinam. Carib. Forester 1(1): 29. Oct.1939. 1.9622 T2C23

1450. STAHEL, G. The natural resources of Surinam. In Plants and Plant Science in Latin America, p.107-108. Waltham, Mass., Chron. Bot., 1945. 453 V58

1451. STAHEL, G. De nuttige planten van Suriname. Surinam Dept. Landbouwproefsta. B. 59,239 p. Ref. Aug.1944. 9.6 D95

Useful plants of Surinam. Kinds of timbers, their nomenclature, properties, and uses, p.123-164.

1452. STAHEL, G. De sawarie-noot, Caryocar nuciferum L., an enkele andere in Suriname in het wild groeende noten. Indische Mer-cuur 58:689-691. Illus. Map. Nov.6,1935. 286.8 In2

Discusses the tree Caryocar nuciferum with reference to developing the nut industry in Surinam. The timber has local uses.

1453. SURINAM. AGRICULTURAL EXPERIMENT STATION. Surinam timbers. Surinam, 194-? 39 p. 99.24 D95

Short descriptions of 34 native woods and information about their use.

MEXICO

1454. ACLARACIONES sobre el consumo doméstico de carbón vegetal y leña. Méx. Forest. 19:27-28. Mar./Apr.1941. 99.8 M57
Domestic consumption of charcoal and fuelwood.

1455. ALLOUARD, P. Les forêts et les industries forestières au Mexique. Bois et Forêts des Trop. 15:223-234. Third Q. 1950. 99.8 B632

Includes description of the government's "Integrated Units" plan. English summary.

Mexico

1456. AMERICAN WOOD PRESERVERS' ASSOCIATION. Proceedings 36-43. 1940-47. 300.9 Am3

Includes listing of wood preservation plants in Mexico and Central America.

1457. ARIES, R. S., and SERRANO, J. Summary of Mexican paper industry. Paper Indus. & Paper World 29(1):69-71. Apr. 1947. 302.8 P1923

After an historical review of the industry, discusses the forest resource. Table 2 gives areas and volumes of pine timber by States. Table 1 locates Mexican pulp and paper mills and estimates capacity of each.

1458. ARMOUR RESEARCH FOUNDATION, CHICAGO. Productos forestales. México, D. F., Banco de México, 1950. 122 p. 99.75 Ar5

The Spanish version of a report also appearing in the Foundation's Technological Study of Various Mexican Industries, item 1520 in this bibliography. Statistics are from official and commercial sources. Contents: Forest products; Lumber; Pulp and paper; Products of Destructive Distillation; Naval stores; Candelilla wax; Other forest products; Conclusion; Recommendations.

1459. ASOCIACION NACIONAL DE PRODUCTORES DE MADERAS DE PINO. Memoria de la ... convención, Nos. 1-3. Durango, México, 1948-50. 3 v. 99.9 C7622

Transactions of the National Association of Pine Producers include speeches presenting the viewpoint of industry, research, and government in Mexico. Lumber grading and standardization, wood utilization, forest management, forest protection, forest credit and forest administration are the principle subjects discussed.

1460. ATTOLINI, J. Economía de la cuenca del Papaloapan. México, D. F., Instituto de Investigaciones Económicas, 1950. 176 p. 281.14 At8E

Describes the forests; estimates resources and production, p.9-26.

1461. ATTOLINI, J. Las especies forestales en la cuenca del Papaloapan. Rev. de Econ. [Mexico] 11(11):29-34. Nov. 15, 1948. 280.8 R3293

A statistical study of forest resources in the Papaloapan region.

1462. AVILA HERNANDEZ, M. Aspecto general del problema forestal de México. Chapingo 24:75-76. Aug. 1948. 102 C36

1463. BAROJAS ARMIÑO, S. Aprovechamiento de los recursos forestales de México, 1-3. Méx. Dir. Gen. Forest. y de Caza B. 3(3): 6-9; 4(1):10-14; 5:13-17. May/June 1942, Jan./June 1943, Jan./June 1944. 99.9 M574

V. 3, including Pt. 1 is issued as Boletín Bimestral, Méx. Dir. Forest y de Caza.

Utilization of Mexico's forest resources. Pt. 1 discusses Mexico's forest economy in general; Pt. 2 reviews forest zones and areas, with summary statistics from the 1930 census, and discusses ownership of forest property; Pt. 3 concerns forest products, and summarizes again the place of timber in the national economy.

1464. BAROJAS ARMIÑO, S. Datos relativos a la Ley del Impuesto Forestal y la reglamentación del mismo. Méx. Dept. Forest. y de Caza y Pesca B. 1(3):23-29. Feb./Apr. 1936. 99.9 M573

Mexico's forest tax law and its enforcement.

1465. BAROJAS ARMIÑO, S. La tributación forestal en México. México. Dir. Gen. Forestal y de Caza. Memoria de la primera convención nacional forestal, p.251-265. México, D. F., 1942. 99.9 C7699

Mexico

Forest taxation. Appendices 1-7 analyze tax quotas by various products and by States. Included also are production statistics derived from the forest levy records.

1466. BARRENA, R. Zonas forestales vedadas. México. Dir. Gen. Forest. y de Caza. Memoria de la primera convención nacional forestal, p.69-77. México, D. F., 1942. 99.9 C7699

Forest reserves and national park areas.

1467. BELL, P. L., and MACKENZIE, H. B. Mexican west coast and Lower California; a commercial and industrial survey. U. S. Bur. Foreign & Dom. Com. Spec. Agents Ser. 220,340 p. Illus. 1923. 157.71 Sp3

Forest products, p.180-186, include reports on lumber, fuelwood, and dyewood.

1468. *BELTRAN, E. El problema de la conservación de los recursos naturales en México, y un proyecto para resolverlo. México, D. F., Sociedad Mexicana de Historia Natural, 1946. 15 p.

1469. *BELTRAN, E. La protección de la naturaleza. México, D. F., Secretaría de Educación Pública, (Biblioteca Enciclopedia Popular, 206). 1949. 92 p.

1470. BELTRAN, E. Los recursos naturales de México y su conservación. México, D. F., Secretaría de Educación Pública, 1946. 96 p. (Biblioteca Enciclopedia Popular 106). Libr. Cong.

1471. BENJAMIN, R. S. Green gold in Yucatán. Américas 2(9):12-15. Sept.1950. 150.9 Am34

Concerns the lumbering operations of Alfredo Medina V., and Colonia Yucatán, his model lumber camp.

1472. BLANCO, C. E. Como explota sus bosques La Cía. Madera de Durango, S. A. Mensajero Forest. 7(67):9-11. Sept./Oct. 1949. 99.8 M522

Plans for forest operations in the Sierra Madre area.

1473. BLANCO, C. E. La Ley Forestal y algunas dificultades que la práctica señala para cumplirla. Méx. Forest. 7:25-28. Map. Feb. 1929. 99.8 M57

Tariffs and transportation differentials in Mexico.

1474. BLANCO, G. The water supply of Mexico City: its relation to renewable natural resources. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948:361-369. 150 In82 No.4

1475. BUENROSTRO, E. Sustitución de combustibles vegetales de uso domestico: carbon. Méx. Dir. Gen. Forest. y de Caza. Memoria de la primera convención nacional forestal, p.117-122. México, D. F., 1942. 99.9 C7699

Charcoal production.

1476. CABALLERO, P. J. Los resultados de la preservación de maderas en los Ferrocarriles Nacionales de México. Méx. Dir. Gen. Forest. y de Caza. Memoria de la primera convención nacional forestal, p.111-115. México, D. F., 1942. 99.9 C7699

Also in Méx. Dir. Gen. Forest. y de Caza B. Bimest. 3(1):3-7. Map. Jan./Feb.1942. 99.9 M574

Charts show tie renewals on Mexico's national railways.

1477. CAMILO, C. DEL. La silvicultura y las industrias como bases para el empleo permanente de emergencia. Carib. Forester 5: 138-144. Apr.1944. 1.9622 T2C23

Provisions which should be made to protect sources of industrial timber in Mexico from excessive exploitation, especially in time of war.

*Not examined.

Mexico

Has English summary.

1478. CARBON. Nosotros [Mexico] 1(13):35-44. July 15, 1944. Libr. Cong.

Largely a pictorial presentation of charcoal and fuelwood exploitation.

1479. CASTELLANOS R., O. A. Principales aspectos que ofrece el problema forestal en Chiapas y su posible resolución. México, D. F., 1944. 76 p. Illus. Libr. Cong.

Thesis (Ingen. Agron.)

Reproduced from typewritten copy. Contents: Objectives of the work; Various operations in Chiapas; Exploitation of indigenous species; Reforestation; Protection problem; Conclusions.

1480. CASTRO F., F. Importancia del conocimiento de nuestros recursos forestales y de su capacidad productiva [Mexico]. Indus. Forest. 1(2):12-14. Mar.1945. 99.8 In23

Discusses the lack of knowledge of Mexican forest resources and productive capacity.

1481. CAVE, M. S. Forest legislation in Mexico. Washington, U. S. Off. Coordinator Inter-Amer. Aff., 1945. 47 p. Ref.

Pan Amer. Union Libr.

In addition to abstracting laws published in *Diario Oficial*, this publication summarizes the forest situation in Mexico, deriving its information from U. S. Bureau of Foreign and Domestic Commerce sources. A list of common names, scientific names, and wood uses for species mentioned in the report, is appended.

1482. CID Y BERGMAN, M. La resinación como una industria de porvenir para México. Méx. Dir. Gen. Forest. y de Caza B. Bimest. 3(2):21-24. Mar./Apr.1942. 99.9 M574

Lists resin-producing pines and States in which they occur. Discusses the possibilities of other resin developments in addition to naval stores.

1483. CIMENTAL, C. Formación de Parques Nacionales en el Estado de Durango. Méx. Forest 8:42-44. Mar.1930. 99.8 M57

1484. COLE, D. S. Large areas of timber land in Mexico awaiting development. Foreign Trade 4:331-333. Aug.14,1948. 286.8 C162

Describes timbered areas and estimates the volumes in better stands, for hardwood and pine forests. Also discusses lumber and plywood industries, and the factors limiting exploitation.

1485. COLE, D. S. Mexican processed wood products fail to obtain export market acceptance. Foreign Trade 4:520-522. Sept.11,1948. 286.8 C162

Discusses production and trade, and outlines steps for the improvement of Mexican forest-products industries.

1486. CONSIDERACIONES que deben guiar la formulación de un nuevo convenio de comercio entre México y los Estados Unidos de Norteamérica en lo referente a maderas. Indus. Forest. 2(12):15-21. Mar.15,1947. 99.8 In23

Discusses duties and tariffs.

1487. LAS COOPERATIVAS forestales y la explotación de montes comunales y ejidales. Méx. Dept. Forest. y de Caza y Pesca B. 1(1):117-126. Sept./Oct.1935. 99.9 M573

Forest cooperatives and the exploitation of communal and ejidal forests. Includes statistics of forest production on collective held lands and lists authorized forest cooperative societies.

1488. CORPORACIONES de defensa contra incendios de montes. Méx. Dept. Forest. y de Caza y Pesca B. 2(7): facing 96. Apr./Aug. 1937. 99.9 M573

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A map and a chart showing forest fire-fighting organizations in Mexico.

1489. COXE, G. R. Pulp and paper industry -- Mexico. U. S. Off. Internatl. Trade, World Trade in Commod. Pt. 6, Pulp & Paper 5(27), 7 p. Oct.1947. 157.54 In236

1490. CREACION de reservas forestales de la fauna sylvestre y zonas de reforestación en la frontera con los Estados Unidos del Norte. Méx. Dept. Forest. y de Caza y Pesca B. 1(2):159-181. Nov.1935/Jan.1936. 99.9 M573

1491. DUPRE CENICEROS, E. The forest problem of Mexico. Inter-Amer. Conf. on Conserv. of Renewable Nat. Resources, Proc. 1948:418-425. 150 In82 No.4

In Spanish, Méx. Dir. Gen. Forest. y de Caza B., Jan./Dec.1949:3-15. 1950. 99.9 M574

Botanical-geographical regions of vegetation; Forest areas; Influence of forest resources on Mexico's economy; People who make their living from these resources; Industries that depend on forest resources; Causes of deforestation; Measures taken by Mexico to preserve its forest resources; Inventory plans.

1492. DUPRE CENICEROS, E. Los recursos forestales de México y su conservación. Chapingo 21:37-41; 22:19-20,29. May-June 1948. 102 C36

Estimates the forest area and tabulates production over the period 1941-45.

1493. DURLAND, W. D. Magnífico porvenir de los bosques del occidente de México. Méx. Forest. 7:211-212. Oct.1929. 99.8 M57

1494. ECONOMIA de los Estados: Campeche. Rev. Econ. 4(12):22-32. Dec.20,1941. 280.8 R3293

Over 60 percent of the total land area is forested. In the section on forest products, p.26-27, chicle exploitation receives the fullest treatment.

1495. ESCUDERO, A., and SALAS, D. Estadística forestal del Estado de Jalisco. Méx. Forest. 3:4-9. Jan.1925. 99.8 M57

1496. ESPEJEL DIAZ, L. Cual es y qué significa la riqueza forestal de Chihuahua. B. Forest. 2(21):14-20,24; (22):4-5,17-18,20-21; (24):10-11,24. Aug.1950,Oct.1950. 99.8 B633

Nos. 21 & 22 dated August. No. 22 presents developments in the lumber industry of Chihuahua, with the following charts: Schematic drawing of roads constructed for the lumber industry of Chihuahua; Laborers and families supported by the lumber industry; Investment in the lumber industry; Taxes paid by the lumber industry to the national government, to the State and to the municipality; Taxes and annual expenditures.

1497. FERNANDEZ R., J. Breves apuntes sobre la industria resinera. Méx. Forest. 23:28-34,51-54. Mar.-Sept.1945. 99.8 M57

1498. FERRIZ Saviñon, A. Un riqueza forestal no explotada en México. Méx. Forest. 1(11/12):10-11. Nov./Dec.1923. 99.8 M57

Tannin sources, an unexploited forest resource in Mexico.

1499. FLEMING, G. R. Timbers and trade of Mexico. Wood [London] 4:341-345. Aug.1939. 99.82 W855

Includes a table of information about Mexico's principal timbers.

1500. FOGLIO MIRAMONTES, F. Geografía económica agrícola del Estado de Michoacán. México, D. F., Secretario de Agricultura y Fomento, 1936. 3 v. & atlas. 278.14 F68

V. 2, Sec. 2, Forests. Analyzes the area resource, chief tree species, degree of exploitation, and products.

Mexico

1501. FOREMAN, W. J. Changing land tenure patterns in Mexico. Land Econ. 26:65-77. Feb.1950. 282.8 J82

Includes discussion of land reform legislation affecting ownership and use of woodlands.

1502. GAITAN, G. Los incendios de los bosques. Méx. Forest. 6: 218-223. Nov.1928. 99.8 M57

Further statements on forest fire policy, by the same author, in 8: 145-151. July 1930.

Gives the causes of forest fires in Mexico and discusses the general forest economy in relation to fires. An analysis of the article in English, by A. N. Weber, appears in J. Forestry 27:433-435. Apr. 1929. 99.8 F768

1503. GALICIA, D. F. Los Parques Nacionales de México. Méx. Dept. Forest. y de Caza y Pesca B. 3(10):75-85. Mar./May 1938. 99.9 M573

Lists the parks, gives area in hectares, and notable characteristics, such as virgin forests.

1504. GALICIA, D. F. Trabajos preliminares de ordenación de bosques, propiedad de indígenas tarahumaras. Méx. Dir. Gen. Forest y de Caza y Pesca B. Bimest. 3(2):12-17. Map. Mar./Apr.1942. 99.9 M574

A preliminary management plan applied to collectively-held lands. Further developments in this project are reported in Indus. Forest. 1(1)*, (2):23-24; (3):26-29; (4)*. Jan.-Dec.1945. 99.8 In23

1505. GARCÍA DIAZ, E. Algunas consideraciones sobre aprovechamientos en México de productos forestales intermedios, principalmente para ferrocarriles. Méx. Forest. 6:4-6. Jan.1928. 99.8 M57

1506. GARCÍA DIAZ, E. Una explotación forestal en Méjico. Montes 3:148-155. Illus. Mar./Apr.1947. 99.8 M763

The history of La Gavia forest operations in the State of Mexico, producing commodities ranging from lumber and pulpwood to fuelwood. Estimates existing volumes in pine and fir and discusses regulation of the cut.

1507. GARCÍA DIAZ, E. Los grandes daños que producen los "ocoteros" en los pinares de la República. Méx. Forest. 11:58-61. Mar.1933. 99.8 M57

Naval stores practices in Mexico, particularly excessive wounding practices.

1508. GARCÍA DIAZ, E. Interés económico de la restauración de la zona forestal mexicana. Méx. Forest. 2:94-97. Nov.1924. 99.8 M57

1509. GARCÍA MARTINEZ, J. Desarrollo y utilización de los recursos forestales de México. Carib. Forester 5:124-135. Apr.1944. 1.9622 T2C23

Similar title in Rev. Agr. [Guatemala] (ser.2) 2:410-418. July/Dec. 1946. 8 G934

Separate, with title Desarrollo y utilización de los recursos forestales en los países americanos. México, D. F., Segunda Conferencia Inter-Americana de Agricultura, 1944. 22 p. 99.75 G16

The development and utilization of Mexico's forest resources, with estimates of wood production, forest cover, and number of trees per hectare. English summary.

1510. GARCÍA MARTINEZ, J. La explotación de carbón vegetal en la región central de la República. Méx. Dept. Forest. y de Caza y Pesca B. 3(11):83-103. Maps. June/Aug. 1938. 99.8 M573

*Not examined.

Mexico

Charcoal operations in the central region of Mexico. Gives the forest resource in 10 States and the Distrito Federal; estimates production by municipalities. Appended material tabulates consumption of charcoal and fuelwood.

1511. GARCIA MARTINEZ, J. La explotación de los pinos en México. Méx. Dept. Forest. y de Caza y Pesca B. 4(12):183-229. Map. Sept./Nov.1938. 99.9 M573

Also published separately (99.22 M572)., and in Méx. Forest. 16:63-77; 17:9-26. Oct.1938-Mar.1939. 99.8 M57

A report on the composition, distribution, and utilization of Mexico's pine forests. Much of its information is in tabular form. Contents: Pine species in the Republic and their classification; Geographic distribution of pines in Mexico; Area covered by pine in the Republic; General inventories; Possibility of pine-forest production; Forest production of all pine woodlands in the Republic; Prices and value of pine products.

1512. GARCIA MARTINEZ, J. La legislación forestal como base de una mejor administración de los recursos naturales de los bosques de nuestro país. Méx. Dir. Gen. Forest. y de Caza. Memoria de la primera convención nacional forestal, p.233-242. México, D. F., 1942. 99.9 C7699

Also in Méx. Dir. Gen. Forest. y de Caza B. 2(4):19-36. Nov./Dec. 1941. 99.9 M574

1513. GARCIA MARTINEZ, J. Las superficies forestales de la Republica. Méx. Dept. Forest. y de Caza y Pesca B. 3(8):127-140. Map. Sept./Nov.1937. 99.9 M573

Delineates forest areas by climatic zone and by altitude zone, with some mention of the dominant vegetation in the various areas. The map of forest zones is one often reproduced in other writings about Mexico's forest resources.

1514. GAY, E. C. The naval stores industry in Mexico. Gamble's Internatl. Naval Stores Ybk. 1930/31: 111-112. 1930. 309 G14N

Mentions seven species of pine of which four produce turpentine. Important features of the law regulating ownership or leasing of timber lands in Mexico are given.

1515. GENERAL MOTORS CORPORATION. GENERAL MOTORS OVERSEAS OPERATIONS. Economic survey of Mexico. New York, 1942. 131 p. Maps. Libr. Cong.

Forestry, p.19-22. Table 2 gives forest products production estimates, 1937-41. Figure 4 is a map of timber areas.

1516. GERARD, F. Las explotaciones de maderas tropicales; eventualidades económicas a que se encuentran expuestas. Indus. Forest. 1(2):10-11. Mar.1945. 99.8 In23

Expected developments and some problems realized in Mexico, with regard to exploiting tropical timbers.

1517. GERARD, F. La industria de maderas no coníferas y nuestro comercio exterior. Indus. Forest. 1(3):10-12. July 1, 1945. 99.8 In23

The Mexican hardwood industry and foreign trade.

1518. GERARD, F. La industria maderera dentro de la economía general de México. Indus. Forest. 1(1):8-11. Jan.1945. 99.8 In23

The place of the lumber industry in Mexico's economy.

1519. GILL, T. H. Los recursos forestales de México. Timberman 31(10):37-38. Aug.1930. 99.81 T484

Spanish version, Méx. Forest. 9:22-27. Feb.1931. 99.8 M57
Historical background; early forest law; railroad and mining expansion; forest reserves and forest zones; business outlook.

Mexico

1520. GODWIN, F., NELSON, M. E., and VILLASEÑOR, R. Report to the Banco de México, S. A., México, D. F. Technological audit of selected Mexican industries with industrial research recommendations. Chicago, Armour Res. Found., 1946. 208 p. 280.14 Ar5

Ch. 5, Forest Products, divided as follows: Mexico's forests; Lumber; Cellulose, pulp and paper; Destructive distillation; Naval stores; Candelilla wax; Other Mexican forest products.

1521. GOMEZ ROMERO, F. Breve comentario a una excursión por el Norte de la Republica [Mexico]. Chapingo 16, p.16-21,32-33. Aug.1947. 102 C36

To observe lumbering operations in Durango.

1522. GOMEZ Y GUTIERREZ, A. Datos valiosos sobre la reforestación en México. Mensajero Forest. 8(74):4-5,16-17. June 30, 1950. 99.8 M522

Reviews the history of forest destruction in México and outlines program for reforestation, with cost estimates.

1523. GONZALEZ DE LA CADENA, E. Sugestiones para una mejor organización de los núcleos campesinos del país, con el fin de que obtengan la mayor utilidad en la explotación de sus montes, preferentemente en relación con el crédito forestal y la eliminación de intermediarios. Méx. Dir. Gen. Forest y de Caza. Memoria de la primera convención nacional forestal, p.163-169. México, D. F., 1942. 99.9 C7699

Suggestions for better rural organizations to obtain fuller wood utilization, preferably in relation to forest credit and elimination of intermediate marketing agents.

1524. GONZALEZ GALLARDO, A. The forest situation and forest problems of Mexico; statement before the Forestry Committee. Food & Agr. Organ. of the United Nations, Doc. of the Conf., 1st sess., 200, 9 p. Oct.31, 1945. 389.9 F735D

1525. GUERRERO, Q. A. La nueva ley forestal y la industria de la madera. Mensajero Forest. 6(54):1,10-11,13. Mar./Apr.1948. 99.8 M522

Mexico's new forest law and the lumber industry.

1526. GUERRERO, S. Conveniencia de que el Estado controle técnica y económicamente la producción forestal. Méx. Dept. Forest. y de Caza y Pesca B. 2(7):121-133. Apr./Aug.1937. 99.9 M573

State controls over forest operations.

1527. GUERRERO, S. Estudio económico y jurídico sobre la propiedad forestal en Mexico. Problemas Agr. de Méx. 1:199-215. 1934. 281.9 P25

An economic and legal study of forest ownership in Mexico.

1528. GUERRERO, S., and CASTRO, F. Proyecto de ordenación del bosque comunal del pueblo de Capacuaro [Michoacán]. Mex. Dept. Forest. y de Caza y Pesca B. 1(4):245-321. Ilus. Map. May/Aug. 1936. 99.9 M573

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1530. GUTIERREZ, R. J. Lumber opportunities in Mexico. Timberman 44(6):72. Apr.1943. 99.81 T484

1531. GUTIERREZ ROLDAN, F. Aspectos de la industria forestal [Mexico]. Indus. Forest. 1(1):5-6. Jan.1945. 99.8 In23

Mexico

1532. HAJJAR, F. Pulp and paper industry -- Mexico. U. S. Off. Internatl. Trade, World Trade Commod. Pt. 6., Pulp & Paper 5(27), 7 p. Oct.1947. 157.54 In236
1533. INTER-AMERICAN DEVELOPMENT COMMISSION. A statement of the laws of Mexico in matters affecting business in its various aspects and activities. Washington, 1948. 161 p. Libr. Cong. Forestry legislation, p.122-123.
1534. JOERNS, A. Doing business in Mexico. *Timberman* 45(9): 72,74. July 1944. 99.81 T484
- Briefly discusses government, taxes, labor, transportation and equipment from the viewpoint of the lumberman considering forest operations in Mexico.
1535. JOERNS, A. Mexico's timber resources. *Timberman* 43(4): 46,48,50. Map. Feb.1942. 99.81 T484
- Discusses factors affecting timber operations in Mexico, such as legislation and transportation. Names the commercial tree species. A map delineates areas where tropical hardwoods, temperate hardwoods, and coniferous species occur.
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- Possibilities of establishing wood distillation operations in Mexico, utilizing oak. Discusses localities in which such operations are most likely to succeed.
1537. JUAREZ HERRERA, R. Cuáles son los caminos que debe seguir la economía forestal para llegar a obtener un mejor redimiento de los bosques de México. *Méx. Forest.* 22:33-36. Mar./Apr.1944. 99.8 M57
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1538. JUAREZ HERRERA, R. Cuánto pierde nuestro país con no destilar las maderas para atender su consumo doméstico de metileno, acetona, aceites pesados de alquitrán y cuanto por los imperfectos métodos de elaboración del carbón. *Méx. Forest.* 24:69-71. Oct./Dec. 1946. 99.8 M57
- Possibilities of developing the products of destructive distillation in Mexico.
1539. JUAREZ HERRERA, R. Estudio dasonómico formulado para regir los aprovechamientos del bosques ejidal y comunal de Santiago Cuautengo, Amecameca, México. *Méx. Forest.* 20:77-84; 21:7-22. Oct./Dec.1942-Jan./Feb.1943. 99.8 M57
- A working plan for ejidal and communal forest areas includes discussion of economic factors affecting such areas.
1540. JUAREZ HERRERA, R. Plan de trabajos de investigación sobre el desarrollo moderno de la utilización de las maderas. *Méx. Forest.* 22:16-18. Jan./Feb.1944. 99.8 M57
- Plans for studying wood utilization, applied to Mexico's forests.
1541. KATZE, M. B. Turpentine production in Mexico. *Timberman* 24(10):152,154. Aug.1923. 99.81 T484
- Discusses operations, markets, and labor.
1542. KESHEN, A. S. "South of the border." Government dominates Mexican lumber industry. *South. Lumber J.* 53(11):14,16,108. Nov.1949. 99.81 So8
- Discusses government controls and mentions some of the larger timber operations in Mexico.
1543. LANG, D. M. Report on the lumber industry and forest conditions in Mexico. Albuquerque?, U. S. Forest Serv., S. West. Reg.,

Mexico

1941. 36 p. 1.9621 R3R29

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Possibilities and recent developments of forest industries.

1545. LENZ, H. La reforestación como base de las industrias del papel. Méx. Forest. 22:41-48. May/June 1944. 99.8 M57

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1546. LEZAMA MICHEL, R. El abastecimiento de durmientes y maderas para los ferrocarriles del país. Méx. Forest. 22:1-2. Jan./Feb.1944. 99.8 M57

Supplying ties and timbers to the National Railroads.

1547. LOOCK, E. E. M. The pines of Mexico and British Honduras Union of So. Africa Dept. of Forestry B. 35,244 p. Ref. Illus. Maps. 1950. 99.9 So84

Report on a reconnaissance made in 1947, in relation to seed sources for South African plantings. Contents: South African aspects; Regional description of Mexico and British Honduras; Description of the forests of Mexico and British Honduras by physiographic divisions; Forestry practice in Mexico and British Honduras; Systematics of Mexican and British Honduras pines.

1548. LUMBER markets and timber resources of Mexico. U. S. Bur. Foreign & Dom. Com., Com. Rpt. 51:1242-1249. Mar.3,1921. 157.7 C76D

Also in West Coast Lumberman 39(467):34,43-44. Mar.15,1921. 99.81 W52; Pan Amer. Union B. 52:325-338. Apr.1921. 150.9 M76

1549. MCGILLICUDDY, B. H. Observaciones [on timber resources] in Mexico. Timberman 45(10):80,82. Aug.1944. 99.81 T484

1550. MCMANAMA, G. P. Lumbering in Yucatan. Lumberman 77(8):53-59,99. Aug.1950. 99.81 W52

The operations of A. Medina V.

1551. MCMULLEN, W. H. Lumber possibilities of Mexico. Timberman 22(3):39. Jan.1921. 99.81 T484

1552. MADERAS finas. Rev. Econ. 5(4):7-8. Apr.27,1942. 280.8 R3293

Lumbering operations and marketing timber in Quitana Roo.

1553. MARES ESPARZA, H. En los bosques de Chihuahua. Todo [Mexico] 825:43-45. Illus. June 30,1949. Pan Amer. Union Libr.

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1554. MARTINEZ BACA, R. Crédito y conservación forestal. Méx. Dir. Gen. Forest y de Caza. Memoria de la primera convención nacional forestal, p.267-281. México, D. F., 1942. 99.9 C7699

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1555. MARTINEZ GARCIA, J. Inventarización forestal de Campeche [Mexico]. Chapingo 4(32):357-358. Aug.1949. 102 C36

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1556. MELL, C. D. Timber conditions in Mexico. Pulp & Paper Mag. Canada 43:775. Sept.1942. 302.8 P96

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1559. MEXICO. DEPT. FORESTAL Y DE CAZA Y PESCA. OF. ESTADISTICA. El impuesto forestal ... 1936. México, D. F., 1938. 546 p. Maps. 99.9 M5732

Forest taxation records by States and by land-ownership types. Includes tables of forest products production, species cut, and the amount of tax imposed.

1560. MEXICO. DIRECCION FORESTAL Y DE CAZA Y PESCA. Circular, nos. 1-5. 1923. 99.9 M57

1, Plan of work, organization of forestry personnel; 2, What should be understood about forested and deforested lands; 3, Mensuration tables; 4, Instructions for sending back botanical specimens and wood samples for testing; 5, Instructions for making provisional working plans.

1561. MEXICO. DIRECCION FORESTAL Y DE CAZA. Directorio general de explotadores de productos forestales de la República Mexicana. México, D. F., 1940. 366 p. 225 M573

A directory of lumbermen and other producers of forest products in Mexico. Products are listed under each State, the timber species employed, name and address of operator, holdings in hectares, and estimated potential annual production.

1562. MEXICO. DIRECCION FORESTAL Y DE CAZA Y PESCA. El problema forestal en la República Mexicana. Hacienda 26:313-314. July 1931. 6 H11

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1563. MEXICO. DIRECCION GENERAL DE ESTADISTICA. Anuario estadístico de los Estados Unidos Mexicanos, 1943-1945. México, D. F., 1950. 832 p. 254.5 F73A

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Hectares in national parks, protection areas and forest reserves for each State, p.568-569; production and value statistics, forest products, p.569-571.

1564. MEXICO. DIRECCION GENERAL FORESTAL Y DE CAZA. Memoria de la primera convención nacional forestal. México, D. F., 1942. 313 p. 99.9 C7699

1565. MEXICO. SECRETARIA DE AGRICULTURA Y GANADERIA. Resumen del informe de labores ... 1940/41-1949/50. 8 M5711

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1566. MEXICO'S lumber and furniture industries. Mex.-Amer. Rev. 11(4):6-9,28,30. Apr.1943. 287 M572
1567. MEYER, H. A. Forestry and forest resources in Mexico. Carib. Forester 4:1-8. Map. Oct.1942. 1.9622 T2C23
1568. MEYER, H. A. Forestry in Mexico. In Plants and Plant Science in Latin America, p.265-270. Ref. Waltham, Mass., Chron. Bot., 1945. 453 V58
- Also in Chron. Bot. 6:395-399. Nov.1941. 450 C46. Spanish version, Soc. Venezolana de Cien. Nat. B. 9:167-175. May/June 1944. 516 C172 Méx. Forest. 20:53-60. July/Sept.1942. 99.8 M57
- 1, History of the Mexican forestry movement; 2, Area, distribution and types of forests; 3, Forest legislation and organization of the Mexican Forest Service; 4, Forest production; 5, Accomplishments and future problems of Mexican forestry.
1569. MEYER, H. A. Mexican forest law of March, 1943. J. Forestry 42:213-214. Mar.1944. 99.8 F768
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1571. MORAL, C. DEL La situación forestal en México. Problemas Agr. de Méx. 1:167-197. 1934. 281.9 P25
- Contents: The technical aspect; The economic aspect; The social aspect. Includes sections on protection, management, exploitation and industry. A table, p.189, lists amounts of lumber, naval stores, charcoal, and railway ties produced by each State in 1930, and gives forested areas in hectares.
1572. MORENO VILLANUEVA, A. La multa forestal. Indus. Forest. 1(4):2-3. Sept.1945. 99.8 In23
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1573. MULLER, J. L. Forest resources and lumber economy of Mexico. U. S. Bur. Foreign & Dom. Com., Indus. Ref. Serv. Pt.6, Forest Prod. 3(16),19 p. Ref. Maps. Oct.1945. 157.54 In236
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1575. MULLERRIED, F. K. G. Conviene establecer Parques Nacionales en el Estado de Chiapas. Mex. Dir. Gen. Forest. y de Caza, B. Jan./Dec.1949:31-34. 1950. 99.9 M574
1576. MUÑOZ AGUILAR, E. Estudio de los recursos forestales del Estado de Chihuahua. Méx. Forest. 12(10/11):197-200. Oct./Nov. 1934. 99.8 M57
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1577. NAJERA, E. G. Como proteger los montes ejidales en beneficio de los campesinos y la nación? Méx. Agr. 6:169-173. July/Sept.1944. 280.8 M57
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1579. LA NECESIDAD de una política de protección forestal de parte de nuestras Empresas Ferrocarrileras. Méx. Forest. 2:43-45. May/June 1924. 99.8 M57

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1580. NIX, L. A. Wood survey for new Mexican mill. Paper Indus. & Paper World 28:1131-1136. Illus. Nov.1936. 302.8 P1923

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1581. PAN AMERICAN UNION. DIV. OF AGRICULTURAL COOPERATION. CONSERVATION SECT. Report on activities ... (1943-1946). Washington, 1946. 148 p. Ref. 150.9 R29

Activity reports include survey reports of Mexico, Guatemala, Chile and Venezuela, and reviews of research and education work of the Section. The appendices include the text of The Convention on Nature Protection and Wild Life Preservation in the Western Hemisphere p.23-27; a bibliography on conservation problems in Mexico, p.88-111; a memorandum by William Vogt on observations in Chile, p.119-140; and the text of a Mexican law on conservation of soil and water, p.144-148.

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1587. PRINCIPALES características de los Parques Nacionales. Méx. Dir. Forest. y de Caza B. 1(4):5-8; (5):4-8; 2(1):10-13. Sept.-Nov.1940, Feb.1941. 99.9 M574

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1588. PROGRAMA de Protección Forestal y de Caza y Pesca que se propone desarrollar este Departamento Autónomo del Ramo en el Estado de Puebla, de acuerdo y con la cooperación del Gobierno de la misma entidad y de la Sociedad Forestal Problana. Méx. Dept. Forest. y de Caza y Pesca B. 1(2):153-158. 99.9 M573

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- Fir (especially *Abies religiosa*) and its utilization. Includes statistics of production in Mexico, wood property comparisons with other woods, and utilization in the pulp and paper industry.

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1654. GENTRY, H. S. Notes on the vegetation of Sierra Surotato in northern Sinaloa. *Torrey Bot. Club. B.* 73:451-462. Sept./Oct.1946. 451 T63B

1655. GENTRY, H. S. Río Mayo plants; a study of the flora and vegetation of the valley of the Río Mayo, Sonora. *Carnegie Inst. of Washington P.* 527,328 p. Maps. 1942. 456.1 G28

Forest vegetation description, p.27-50. Also discusses forest succession on abandoned milpas.

1656. GENTRY, H. S. Sierra Tacuichamona -- a Sinaloa plant locale. *Torrey Bot. Club. B.* 73:356-362. July/Aug.1946. 451 T63B

A vegetation analysis of eight forest types.

1657. GONZALEZ ORTEGA, J. Amapa prieta, *Tabebuia palmeri*, Rose (Estado de Sinaloa). *Méx. Forest.* 4:31-35. Mar./Apr.1926. 99.8 M57

1658. GONZALEZ ORTEGA, J. Arellano o palo colorado [*Brasi-lettia platyloba*]. *Méx. Forest.* 4:84-85. July/Aug.1926. 99.8 M57

1659. GONZALEZ ORTEGA, J. Candelon, *Rhizophora mangle* L.; guacima [*Guazuma ulmifolia*]. *Pro-Cult. Region. B.*, [Mazatlán] 38-41:14-18. Sept./Dec.1934. 276.4 B63

1660. GONZALEZ ORTEGA, J. El ebano de México [*Libidibia sclerocarpa*]. *Méx. Forest.* 4:21-23. Jan./Feb.1926. 99.8 M57

1661. GONZALEZ ORTEGA, J. Ebano [*Libidibia sclerocarpa*]; arellano o palo colorado [*Brasilettia platyloba*]; amapas [*Tabebuia* spp.]; tecomate ayele o guaje cirial, *Crescentia alata*, H. B. K.; guayacan [*Guaiacum coulteri*]; and haba, *Hura polyandra*, Baill. *Pro-Cult. Region. B.*, [Mazatlán] *Bot. Sec.*, 33:3-12. Illus. Mar.1934. 276.4 B63

Chiefly botanical description, but includes notes on distribution, rate of growth, vernacular names, and illustrations of the trees.

1662. GONZALEZ ORTEGA, J. Guayacan [*Guaiacum coulteri*]. *Méx. Forest.* 5:139-141. Nov./Dec.1927. 99.8 M57

Similar material in 12:217-218. Dec.1934.

1663. GONZALEZ ORTEGA, J. La guázima [*Guazuma ulmifolia*]. *Méx. Forest.* 12:166-168. Sept.1934. 99.8 M57

1664. GONZALEZ ORTEGA, J. El haba o habilla de San Ignacio [*Hura polyandra*]. *Méx. Forest.* 5:8-11. Jan./Feb.1927. 99.8 M57

1665. GONZALEZ ORTEGA, J. Tecomate, ayele o guaje cirial [*Crescentia alata*]. *Méx. Forest.* 4:98-100. Sept./Oct.1926. 99.8 M57

1666. HARPER, R. M. Useful plants of Yucatan. *Torrey Bot. Club B.* 59:279-288. May 24,1932. 451 T63B

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1667. HERRERA, H. *Monografía del Río Hondo* (Quintana Roo). *Soc. Mex. de Geog. y Estadís. B.* 56:209-241. Ref. Mar./Apr.1942. *Amer. Geog. Soc. Libr.*

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1668. *HOFFMANN, C. C. *Investigaciones en las selvas virgenes del sur de la Península de Yucatán*. *Inst. Higiene [México, D. F.] B.*, Ser. 2, 2:227-264. Jan.1936.

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1669. JOERNS, A. *The commercial timbers of Mexico*. Chicago, Author, 1944. 21 p. 99.76 J59

Brief descriptions under common names.

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1670. KETELHUT, F. Proyecto sobre explotación lucrativa del eucalipto en México. *Méx. Forest.* 24:76-79. Oct./Dec.1946. 99.9 M57

1671. LAMB, W. H. The pines of Mexico. *South. Lumberman* 108 (1422):143-144. Map. Dec.23,1922. 99.81 So82

Estimates distributions, also shown on a sketch map, and discusses species.

1672. LEAVENWORTH, W. C. A preliminary study of the vegetation of the region between Cerro Tancitaro and the Rio Tepalcatepec, Michoacan, Mexico. *Amer. Midland Nat.* 36(1):137-206. Illus. Map. July 1946. 410 M58

Forest vegetation analysis, p.141-152. Map and illustrations, p.197-206. Turpentine forests are included in this area.

1673. LEOPOLD, A. S. Vegetation zones of Mexico. *Ecology* 31: 507-518. Ref. Map. Oct.1950. 410 Ec7

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1674. LESUEUR, H. The ecology of the vegetation of Chihuahua, Mexico, north of parallel twenty-eight. *Tex. U. P.* 4521,92 p. Illus. Maps. June 1,1945. 463.89 L56

1675. LOOCK, E. E. M. Los bosques de pino de México; observaciones generales. *Mensajero Forest.* 5(47):7,9-10. June 30,1947. 99.8 M522

General observations of Mexico's pine forests by a South African forester.

1676. LUNDELL, C. L. Preliminary sketch of the phytogeography of the Yucatan peninsula. *Carnegie Inst. of Washington, Contrib. to Amer. Archaeol.* 2(12):253-320. Ref. Oct.1934. 500 C21C

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1677. MARTINEZ, M. Los Abies mexicanos. *Méx. Inst. de Biol. An.* 19:11-104. 1948. 442.9 M57

1678. MARTINEZ, M. El ahuehuete (*Taxodium mucronatum* Ten.) *Méx. Inst. de Biol. An.* 21:25-82. Ref. 1950. 442.9 M57

1679. MARTINEZ, M. Arbol del balsamo [*Myroxylon balsamum*]. *Méx. Dir. Estud. Biol. B.* 3(3):49-51. May 1926. 516 M575

1680. MARTINEZ, M. Catálogo de nombres vulgares y científicos de plantas mexicanas. México, D. F., 1937. 552 p. Ref. 452.14 M362

An earlier publication by the same author was entitled *Catálogo alfabético de nombres vulgares y científicos de plantas que existen en México*. México, D. F., Secretaría de Agricultura y Fomento, 1923-29. 670 p. Ref. 456.1 M572

An alphabetical list of common names, listing botanical name and States in which the plants occur.

1681. MARTINEZ, M. Los Cupressus de México. *Méx. Inst. de Biol. An.* 18(1):71-149. 1947. 442.9 M57

Similar information in *Soc. Bot. de Mex. B.* 6:1-6. Mar.1948. 451 So125; *Mensajero Forest.* 6(53):6-7. Feb.1948. 99.8 M522

1682. MARTINEZ, M. Los Juniperus mexicanos. *Méx. Inst. de Biol. An.* 17(1/2):3-128. 1946. 442.9 M57

1683. MARTINEZ, M. *Picea chihuahuana*. *Méx. Inst. de Biol. An.* 19:393-405. 1948. 442.9 M57

1684. MARTINEZ, M. Los pinos mexicanos. Ed. 2. México,

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Ediciones Botas, 1948. 361 p. Illus. Maps. 456.1 M36Pi

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1685. MARTÍNEZ, M. *Plantas útiles de México*. Ed. 2. México, Ediciones Botas, 1936. 400 p. Ref. 456.1 M36

Earlier edition entitled *Las plantas mas útiles que existen en la República mexicana*, 1928. Includes timber species and briefly reviews geographical distribution, botany, utilization and nomenclature of these. Brief bibliographies accompany the description of each species.

1686. MARTÍNEZ, M. *Las Pseudotsugas de México*. *Méx. Inst. de Biol. An. 20*:129-184. Map. 1949. 442.9 M57

1687. MARTÍNEZ, M. *Los recursos forestales en las regiones del secano de México*. *Méx. Forest. 4*:1-10. Illus. Jan./Feb.1926. 99.8 M57

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Tannin-yielding plants. Tannin in *Schinus molle*.

1689. MEXICO. DEPT. FORESTAL Y DE CAZA Y PESCA. SERV. DE CONSERVACION FORESTAL. *Lista de las especies forestales del Estado de Guerrero cuya madera tiene alguna aplicación industrial y puede aprovecharse en construcciones o emplearse en durmientes y ademes de mina. Protec. a la Nat. 1*(6/7):33; (8/9):33; (10/12):33. June/July-Oct./Dec.1936. 279.8 P94

Vernacular and scientific names of timbers, with utilization notes, State of Guerrero.

1690. MEYER, H. A. *Estudio sobre la constitución normal de los bosques vírgenes del Estado de Durango*. *Méx. Dept. Forest. y de Caza y Pesca B. 3*(9):125-154. Dec.1937/Feb.1938. 99.9 M573

1691. MEYER, H. A., and TREVIÑO SALDAÑA, C. *Estudio sobre la constitución normal y el crecimiento de la bosques vírgenes de la serranía del Estado de Puebla*. *Méx. Dept. Forest. y de Caza y Pesca B. 2*(6):165-222. Illus. Jan./Mar.1937. 99.9 M573

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1693. MIRANDA, F. *Datos sobre la vegetación en la cuenca alta del Papaloapan*. *Méx. Inst. de Biol. An. 19*:333-364. 1948. 442.9 M57

1694. MIRANDA, F. *Estudios sobre la vegetación de México*, 1-4. *Méx. Inst. de Biol. An. 12*:569-614; 13:53-70, 417-459; 14:407-421. 1941-43. 442.9 M57

1, La vegetación de los cerros al sur de la Meseta de Anáhuac, el Cuajitotl; 2, Observaciones preliminares sobre la vegetación de la región de Tapachula, Chiapas; 3, Notas generales sobre la vegetación del s. o. del Estado de Puebla, especialmente de la zona de Itzacan de Matamoros; 4, Algunas características de la vegetación y de la flora en la zona de Acatlan, Pue.

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1695. MIRANDA, F. Estudios sobre la vegetación de Mexico. V. Rasgos de la vegetación en la Cuenca del Río de las Balsas. Soc. Méx. de Hist. Nat. Rev. 8:95-114. Ref. Dec.1947. 516 So15

1696. MIRANDA, F. El genero Nyssa en Mexico. Méx. Inst. Biol. An. 15:369-374. 1944. 442.9 M57

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1699. MULLER, C. H. Vegetation and climate of Coahuila, Mexico. Madroño 9:33-57. Apr.1947. Ref. 450 M26

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1702. OCHOTERENA, I. Esquemas biotípicos y sinecias características de las regiones geográfico-botánicas de México. Méx. Inst. Biol. An. 8:463-597. Illus. Dec.1937. 442.9 M57

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1703. QUEVEDO, M. A. DE Exploración forestal y de Caza y pesca en el sureste del Estado de Veracruz. Méx. Dept. Forest. y de Caza y Pesca B. 3(11):1-5. June/Aug.1938. 99.9 M573

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1714. ROLDAN, A. Cultivo y explotación del nogal [*Carya*] aprovechando nuestras nogaleras espontáneas. Méx. Forest. 3:30-32. Feb. 1925. 99.8 M57

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1718. SANCHEZ, E. P. El Parque Nacional del Chico. Méx. Forest. 5:19-25. Map. Mar.[Apr.1927. 99.8 M57

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1719. SANCHEZ, R., and BOURNET, E. Informe rendido sobre la exploración practicada en la Sierra de San Blas de Pabellon, Ags. Méx. Dir. Forest. y de Caza y Pesca B. 2(7):169-183. Illus. Apr./Aug.1937. 99.9 M573

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1722. SHARP, A. J. Informe preliminar sobre algunos estudios

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1723. SHREVE, F. Lowland vegetation of Sinaloa. Torrey Bot. Club. B. 64:605-613. Illus. Dec.1937. 451 T63B

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1724. SHREVE, F. Observations on the vegetation of Chihuahua. Madroño 5:1-13. Ref. Jan.1939. 450 M46

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1726. SOSA, A. H. Algunas consideraciones sobre el *Juniperus* de México. Méx. Forest. 13:117-122. Nov./Dec.1935. 99.8 M57

1727. SOSA, A. H. Los bosques de Colima. Méx. Forest. 13:65-70. July/Aug.1935. 99.8 M57

1728. SOSA, A. H. Los bosques de Huitzilac y las lagunas de Zempala en el Estado de Morelos. Méx. Forest. 13:39-45. May/June 1935. 99.8 M57

1729. SOSA, A. H. Los bosques de la "Malinche". Méx. Forest. 5:91-96. Sept./Oct.1927. 99.8 M57

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1730. SOSA, A. H. Los bosques de la Tenería, Estado de Guerrero. Protec. a la Nat. 1(6/7):26-31. June/July 1936. 279.8 P94

1731. SOSA, A. H. Los bosques de Zacualtipan, Estado de Hidalgo. Méx. Dept. Forest. y de Caza y Pesca B. 1(1):173-183. Sept./Oct. 1935. 99.9 M573

1732. SOSA, A. H. Los bosques del Valle de Bravo. Méx. Forest. 14:11-17. Jan./Feb.1936. 99.8 M57

1733. SOSA, A. H. Los bosques ejidales de Tequexquipan, Estado de México. Méx. Forest. 13:19-22. Mar./Apr.1935. 99.8 M57

1734. SOSA, A. H. En la inexplorada "Malinche." Méx. Forest. 7:177-181. Sept.1929. 99.8 M57

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1736. SOSA, A. H. Exploración forestal en el litoral del Estado de Colima. Méx. Dept. Forest. y de Caza y Pesca B. 4(14):183-207. Illus. Mar./May 1939. 99.9 M573

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1738. SOSA, A. H. Exploración forestal en la región de Rincón de Romos, Estado de Aguascalientes. Méx. Forest. 14:84-90. Nov./Dec. 1936. 99.8 M57

1739. SOSA, A. H. Exploración forestal en la ruta Matachic-Mesa del Correo, Estado de Chihuahua. Méx. Dept. Forest. y de Caza y Pesca B. 4(12):233-260. Sept./Nov.1938. 99.9 M573

1740. SOSA, A. H. Importancia de la geología en la carrera de ingeniero civil. Méx. Dept. Forest. y de Caza y Pesca B. 2(6):233-249. Illus. Jan./Mar.1937. 99.9 M573

Discusses relations of topography to vegetation, with several illustrations of Mexico's forest types.

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1741. SOSA, A. H. Las montañas Tequila Jalisco. Méx. Forest. 12:114-119. Illus. 1934. 99.8 M57

Includes forest types.

1742. SOSA, A. H. El Parque Nacional "Alexjandro de Humboldt" y región de Taxco de Alarcon, Estado de Guerrero. Méx. Dept. Forest. y de Caza y Pesca, B. 4(15):241-289. Illus. June/Aug.1939. 99.9 M573

Describes and illustrates the forests in the Alexander Humboldt National Park. Discusses forest economy and exploitation in the Taxco region.

1743. SOSA, A. H. El Parque Nacional "Chacahua" en el Estado de Oaxaca. Méx. Dept. Forest. y de Caza y Pesca B. 3(8):263-298. Sept./Oct.1937. 99.9 M573

1744. SOSA, A. H. El Parque Nacional Cumbres del Ajusco. Méx. Forest. 16:31-35. Apr./June 1938. 99.8 M57

1745. SOSA, A. H. El Parque Nacional del Desierto de los Leones. Méx. Forest. 18:25-31. Mar./Apr.1940. 99.8 M57

1746. SOSA, A. H. El Parque Nacional "Nauhcampateptl." Méx. Dept. Forest. y de Caza y Pesca B. 2(7):269-292. Illus. Apr./Aug. 1937. Illus. 99.9 M573

1747. SOSA, A. H. Proyecto del Parque Nacional "Río Blanco-Barranca de Metlac," Estado de Veracruz. Méx. Dept. Forest. y de Caza y Pesca B. 3(10):187-222; (11):181-234. Mar.-Aug.1938. 99.9 M573

1748. SOSA, A. H. La Sierra de Puebla. Méx. Forest. 9:119-125. June 1931. 99.8 M57

1749. SOUZA NOVELO, N. Apuntes relativos a la flora de Yucatán (1942). Mérida, Instituto Técnico Agrícola Henequenero, 1945. 73 p. 456.1 So8A

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1750. STANDLEY, P. C. Flora of Yucatan. Chicago Mus. of Nat. Hist., Bot. Ser. 3:157-492. Sept.11,1930. 500 C432B

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1751. STANDLEY, P. C. Las relaciones geográficas de la flora mexicana. Méx. Inst. Biol. An. 7:9-16. 1936. 442.9 M57

1752. STANDLEY, P. C. Trees and shrubs of Mexico. U. S. Natl. Herb. Contr. 23, 1721 p. Ref. Oct.11,1920-Nov.15,1926. 450 C76

Published in 5 parts. Includes notes on distribution, uses, and common names of species.

1753. TAYLOR, W. P., and others. The Sierra del Carmen in northern Coahuila. Tex. Geog. Mag. 10(1):11-22. Spring 1946. 331.8 T31

W. B. McDougall, C. C. Presnall, and K. P. Schmidt, joint authors. An ecological study.

1754. VARGAS, F. Guanajuato; monografía geográfico-histórica. Soc. Mex. de Geog. y Estadís. B. 50:65-110. Ref. Apr.1939. Amer. Geog. Soc. Libr.

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1755. VILLA, J. L. El mezquite y sus aprovechamientos. Mensajero Forest. 6(56):9. June 1948. 99.8 M522

Utilization of Prosopis juliflora as it grows in northern Mexico.

1756. THE WALNUTS of Mexico. Hardwood Rec. 50(7):40. Jan.25, 1921. 99.81 H225

Discusses possibilities of commercial exploitation.

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1757. WHITE, S. S. The vegetation and flora of the region of the Río de Bavispe in northeastern Sonora, Mexico. *Lloydia* 11:229-302. Ref. Map. Dec.1948. 442.8 L77

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1867. MEZZOTTONI, C. Derivaciones de los estudios de aprovechamiento y arborización de los Bañados de Carrasco. Montevideo U. Facul. de Agron. Rev. 31:55-109. Feb.1948. 102.5 M76R
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1868. POPLAR paper. Business Week 697:62. Jan.9,1943. 280.8 Sy8
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1873. QUINTEROS, M. Estudios forestales. Montevideo, n.d. 56 p. Illus. 99.24 Q4
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1874. RAMBO, B. La vegetación del Alto Uruguay. Rev. Sudamer. de Bot. 2:108-110. Oct.1935. 450 R3242
Gives the specific and common names of trees found in "high forests" and "low forests."
1875. ROSENGURTT GURVICH, B. La vegetación del Uruguay. In Plants and Plant Science in Latin America, p.142-143. Ref. Waltham, Mass., Chron. Bot., 1945. 453 V58
1876. SANCHEZ ROGE, H. Los árboles forestales. Montevideo, 1943. 256 p. Illus. 99.24 Sa5
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1877. SANTOS BILONI, J. De Colonia al Chuy, con un resumen fitogeográfico y geológico del Uruguay. *Rev. Geog. Amer.* 25:333-347. Illus. June 1946. 475 R322

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1884. VILLEGAS SUAREZ, E. Pinos y pinares del Uruguay. *Asoc. Rur. Uruguay Rev.* 69(11):33-34. Nov.1942. 9.9 As5

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The timber problems of Venezuela are treated as follows: forest capacity, forest composition, forest exploitation, timber marketing conditions, peculiarities of the lumber industry in Venezuela, reforestation, forest fires, merchantable timber, and wood treating. A list of timbers on the Caracas market, p.139.

1887. BARNES, V. Far away from well known trails (Puerto Paez and Parguasa Valley, Upper Orinoco). *Rev. de Agr. de Puerto Rico* 38:193-202. May/Dec.1947. 8 R325

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Savanna and rain forest vegetation.

1888. BEARD, J. S. Notes on the vegetation of the Paria Peninsula, Venezuela. *Carib. Forester* 7:37-46. Jan.1946. 1.9622 T2C23
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1889. BEEBE, W., and CRANE, J. Ecology of Rancho Grande, a subtropical cloud forest in northern Venezuela. *Zoologica* 32:43-60. Illus. May 8,1947. 410 Z722

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1891. BELL, P. L. Venezuela; a commercial and industrial handbook. U. S. Bur. Foreign & Dom. Com. Spec. Agents Ser. 212, 472 p. Maps. 1922. 157.71 Sp3
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1892. BRICEÑO VALERO, A. Riqueza forestal del Estado Trujillo. *Agr. Venezol.* 13(132):8-9. Oct./Dec.1948. 9.95 Ag8
The forested regions, tree species found therein, and factors affecting exploitation in the State of Trujillo.
1893. CAVE, M. S. Forest legislation in Venezuela. Washington, U. S. Off. of Inter-Amer. Aff., 1945. 42 p. Ref.
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The introduction discusses the general forest regions of Venezuela. A glossary of tree names is appended.
1894. COLL REYNA, A. Geografía económica de Venezuela. Caracas, 1940. 150 p. 278.169 C69
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1895. COROTHE, H. Maderas de Venezuela. Caracas, 1948. 321 p. Ref. 99.31 C812
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1896. CRIST, R. E. Along the llanos-Andes border in Zamora, Venezuela. *Geog. Rev.* 22:411-422. July 1932. 500 Am35G
Describes the vegetation as well as the topography, and on p. 421 gives some available timber species.
1897. CRIST, R. E. Etude géographique des llanos du Venezuela occidental. Grenoble, France, Allier, 1937. 180 p. Ref.
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1898. CRIST, R. E. Life on the llanos of Venezuela. *Geog. Soc. Phila. B.* 35:13-25. Illus. Apr.1937. Libr. Cong.
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1899. CRIST, R. E. Mérida, Venezuela -- from isolation to integration. *Sci. Mon.* 55:114-131. Illus. Aug.1942. 470 Sci23
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1901. FONTANA, E. Regeneración de los montes altos y medios de los llanos occidentales de Venezuela; causas de la desvalorización de nuestros montes. *Agr. Venezol.* 12(125):26-30. July/Aug.1947. 9.95 Ag8
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1902. FONTANA Y MENENDEZ, E. Reglas generales para el establecimiento de la ordenación en los bosques altos tropicales, "Tropófilos y ombrófilos pluviales." Caracas, Crisol, 1945. 61 p.

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(Conferencia Interamericana de Agricultura. 3. Caracas, 1945. Comité Organizador. Cuadernos Verdes, No. 33) 99.65 F73

Chiefly the theoretical management of tropical forests in Venezuela. A table p.10-11 gives kind and quantity of forest products produced in Venezuela, 1942-44.

1903. GLEASON, H. A. Botanical results of the Tyler-Duida expedition. Torrey Bot. Club. B. 58:277-506. Map. May-Nov.1931. 451 T63B

A general description of vegetation in this Orinoco region, and a vegetation map, p.277-298. Articles of the same series, omitted from this bibliography, are chiefly botanical.

1904. GONGGRIJP, J. W. Verslag over een studiereis door een gedeelte van Venezuela (balata, chicle, veeteelt). Surinam Dept. van den Landbouw B. 43, 66 p. June 1921. 9.6 D95

Report of a tour through part of Venezuela, to investigate balata, chicle, and livestock.

1905. GONZALEZ VALE, M. A. Estudio forestal sobre los llanos occidentales de Venezuela. Caracas, Crisol, 1945. 99 p. Illus. 99.65 G58

1, General description of the western llanos; 2, Vegetation classification and composition; 3, Forest values; 4, Enemies of the forest; 5, The lumber industry -- evolution and peculiarities; 6, Four links in the lumber industry chain: the resource, exploitation, manufacture, and distribution; 7, Possibilities of the lumber industry; 8, Conclusions, recommendations, and final considerations.

1906. GONZALEZ VALE, M. A. Un plan nacional forestal venezolano. Trujillo, Venezuela, 1942. 28 p. 99.71 G58

1907. GONZALEZ VALE, M. Recursos forestales de Venezuela; descripción succincta; su valor económico presente y probable futuro; su conservación. Amer. Sci. Cong. 5(1940):79-93. Map. 1942. 330.9 Am3008

English summary in Chron. Bot. 7:37-38. Jan.1942. 450 C46

Describes the three principal forest regions with the most important timber species growing in each; chief forest products, the economic value of the forest, and steps taken in forest conservation.

1908. GONZALEZ VALE, M. A. Temas forestales. Agr. Venezol. 4/5(60/61):43-53; 6(62/63):27-35. Illus. Apr./May-June/July 1941. 9.95 Ag8

Two articles written as a result of survey trips through Cojedes, Portuguesa, Barinas, and Apure. 1, A forestry study of the Venezuelan llanos; 2, The lumber industry.

1909. GONZALEZ VALE, M. Venezuela forestal. Carib. Forester 1(3):10-14. Apr.1940. 1.9622 T2C23
English summary.

General remarks about the forests's place in Venezuela's total economy, and about the development of the forest resource.

1910. HELLMUND TELLO, A. En el Bajo Orinoco. Caracas, Artes Gráficas, 1944. 286 p. 125 H36

Scattered information on forest products and forest life on the lower Orinoco, including mangrove exploitation, balata extraction, and descriptions of the inundated and dryland forests.

1911. INTER-AMERICAN DEVELOPMENT COMMISSION. The industries of Venezuela. Washington, 1948. 64 p. 280.169 In81

Indicates the relative position of wood industries in the total Venezuelan economy. Lumbering is listed as an industry in urgent need of development. Exploitation and utilization are discussed p.40-41.

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Opinion regarding Venezuela's forest resource and industry potential.

1913. LASSER, T. Exploraciones botánicas en el Estado Mérida. Caracas, 3d Conferencia Interamericana de Agricultura, 1945. 25 p. 457.5 L33

Timber trees, p.12-13.

1914. LICHY, R., and DE CIVRIEUX, M. Exploración por la región amazónica de Venezuela. Caracas, 3d Conferencia Interamericana de Agricultura, 1945. 111 p. 125 L61

Exploration of the Amazon region of Venezuela.

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1915. MATALLANA, R. P. B. DE La gran Sabana; tres años de mision en los confines de Guayana. *Soc. Venezol. de Cien. Nat. B.* 4 (29):10-82. *Illus.* Jan./Aug.1937. 516 C172

Section 2 is devoted to geography and vegetation.

1916. MELL, C. D. Planting mahogany in Venezuela. *Pan Amer. Union B.* 57:599-601. Dec.1923. 150.9 M76

Discusses Venezuelan mahogany (*Swietenia candollei*) in commerce, and compares it with other mahoganies.

1917. MEYER, H. A. Forest legislation in Venezuela. *J. Forestry* 42:285-286. Apr.1944. 99.8 F768

1918. MONSANTO, L. E. Forêts vénézuéliennes. *Rev. Internatl. du Bois* 6:140-142. Apr.1939. 99.8 R326

Estimates the total forested area in Venezuela, and lists the common names of timbers, classified as follows: precious woods, construction wood, dyewood, tannin sources, and others.

1919. NOTES on Venezuelan timbers. *Timber Devlpmt. Assoc., Timber Inform. Ref.* 32, 4 p. 1947. 99.9 T48Tr

Information on 21 timbers, consisting of notes on scientific names, properties, and uses.

1920. OXFORD-LOPEZ, E. Apuntaciones para una geografía económica del Estado Bolivar. Caracas, Garrido, 1948. 324 p. 279.169 Ox2

Notes for an economic geography of the State of Bolivar in Venezuela include statistics of balata and chicle production, and a discussion of forest resources.

1921. PERRET, G. Le Venezuela au point de vue forestier. *Rev. Internatl. du Bois* 1(3):11-19. Mar.1934. 99.8 R326

Chiefly a list of commercial timbers.

1922. PITTIER, H. Acerca de nuestras maderas. Caracas, *Cultura Venezolana*, 1922. 23 p. 457.5 P68A

1923. PITTIER, H. Arboles y arbustos ... de Venezuela. Caracas, *Tipografía Americana*, 1921-29. 5 v. (Contribuciones para la Flora de Venezuela). 457.5 P68C

In addition to botanical descriptions of trees and shrubs, contains a general discussion of forest flora, and has additional notes on occurrence, distribution, and utilization of species.

1924. PITTIER, H., and RECORD, S. J. La caoba venezolana. Caracas, *Tipografía Americana*, 1921. 14 p. 99.35 P68

1925. PITTIER, H. Clasificación de los bosques. *Soc. Venezol. de Cien. Nat. B.* 4(30):93-110. Sept./Oct.1937. 516 C172

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1926. PITTIER, H. Consideraciones acerca de la destrucción de los bosques y del incendio de las sabanas. *Soc. Venezol. de Cien.*

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1927. PITTIER, H. Esbozo de las formaciones vegetales de Venezuela, con una breve reseña de los productos naturales y agrícolas. Caracas, Litografía del Comercio, 1920. 44 p. 457.5 P68Me

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1928. PITTIER, H. El estudio de los productos forestales en Venezuela. Venezuela Mus. Com. B. 1(1):3-44. Jan. 1927. 516 C17B & 457.5 P68S

Describes the undertakings of the Museo Comercial, and gives a list of woody plants with their common names.

1929. PITTIER, H. Exploraciones botánicas y otras en la cuenca de Maracaibo. Caracas, Tipografía Mercantil, 1923. 100 p. Illus. 457.5 P68Ex

Describes the savanna and rain forest regions.

1930. PITTIER, H. Manual de las plantas usuales de Venezuela. Caracas, Litografía del Comercio, 1926. 458 p. Ref. Illus. 457.5 P68M
Also, Supplemento. Caracas, Ed. Elite, 1939. 129 p. Ref. 457.5 P68M Suppl.

1, Investigation of the flora of Venezuela and the actual state of knowledge. 2, Distribution of plants in Venezuela. 3, Plants of Venezuela. Sections of particular application to forestry include a forest description, p.20-27; timbers and other useful tree species, p.71-92. This last section includes a list of common names of timbers, some information on their properties and their uses for charcoal, lumber, and otherwise.

1931. PITTIER, H. Mapa ecológico de Venezuela, que demuestra las zonas naturales, los cultivos, las vías de comunicación y los principales centros mineros, etc. Caracas?, 1920. Map. 457.5 P86Ma

A detailed discussion in English of this map, and of the vegetation zones delineated by it, appears in Geog. Rev. 12:300-302. Apr. 1922. (500 Am35G). The author's descriptive text in Spanish, intended to accompany the map's use, is entitled Esbozo de las Formaciones Vegetales de Venezuela, item 1927 in this bibliography.

1932. PITTIER, H., and WILLIAMS, L. A review of the flora of Venezuela. In Plants and Plant Science in Latin America, p.102-105. Waltham, Mass., Chron. Bot., 1945. 453 V58

1933. PITTIER, H. Trabajos escogidos. Caracas, Venezuela Ministerio de Agricultura y Cría, 1947. 246 p. Illus. 457.5 P68T

Selected works of the author include his geobotanical notes on the country, and his classification of forest vegetation.

1934. PITTIER, H., and BAKER, H. B. Venezuela. In Nat. Geog. Soc. of America's guide to the Americas, p.637-648. Baltimore, Williams & Wilkins, 1926. 409 Ec7

1935. RECORD, S. J. The wood of the Venezuelan mahogany (*Swietenia candollei* Pittier). Yale Sch. of Forestry Contr. 16, 7 p. 1921. 99.9 Y1C

In addition to giving the anatomical characteristics of the wood, compares Venezuelan mahogany with *Swietenia mahagoni* and discusses commercial developments.

1936. SIROTTI, L., and MALAGUTTI, G. La agricultura en el Territorio Amazonas. Caracas, Venezuela. Ministerio de Agricultura y Cría, 1950. 107 p. Ref. Illus. Map. 31.9 V554A

Includes general information about climate, soils and transportation. Trees most usually encountered, p.37-38; Forest products, p.91-92;

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1937. STANDLEY, P. C. Flora of Venezuela. Pan Amer. Union B. 60:978-990. Oct.1926. 150.9 M76

Discusses vegetation zones and the trees occurring in each zone.

1938. STEYERMARK, J. A. Exploración botánica a las regiones orientales de Venezuela. Soc. Venezol. de Cien. Nat. B. 10:259-276. Apr./June 1946. 516 C172

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A list of timber trees, with common names and uses, p.265-267.

1939. TAMAYO, F. Estudio del medio xerofilo venezolano. Caracas, Venezuela. Ministerio de Agricultura y Cría, 1949. 24 p. Illus. 99.47 V55

A land restoration plan for dry, eroded uplands. Includes a list of arborescent species for planting and natural revegetation.

1940. U. S. SOIL CONSERVATION SERV. Land conditions in Venezuela and their relations to agriculture and human welfare. Washington, 1942. 154 p. Ref. Maps. 1.96 Ad6L22

A report of the Soil Conservation Mission to Venezuela, headed by H. H. Bennett. Includes analyses of land types and vegetation.

1941. U. S. TARIFF COMMISSION. Agricultural, pastoral, and forest industries in Venezuela. Washington, 1945. 27 p. 173 T17Agv
Forests, p. 6; forest products, including lumber, balata, chicle, and divi-divi, p.22-23.

1942. URBANEJA, L. A. Maderas de Venezuela. Caracas, Col. de Ingen. de Venezuela Rev. 20:338-352. Oct./Dec.1942. Pan Amer. Union Libr.

In addition to wood technology, discusses nomenclature, distribution, tree description, and utilization of each timber listed.

1943. VEILLON, J. P. Los baldíos de la selva de Turén. Agr. Venezol. 15(144):19-23. Illus. Maps. July 1950. 9.95 Ag8

General description, forest composition, forest operations, the forest's part in the economy of Portuguesa, forest management, and administration, in the public lands of Turén.

1944. VEILLON, J. P. Cuenca del bajo y medio Caura, Estado Bolívar, mapa forestal. Caracas?, 1948. Map. 99.24 V53

A vegetation map of the middle and lower Caura Valley, Venezuela. Estimates timber in three forest zones.

1945. VENEZUELA.DEPT. DE DIVULGACION AGROPECUARIA. Observaciones y recomendaciones en materia forestal para el Estado Trujillo, por H. M. Curran, J. P. Veillon y G. Budowski. Caracas, 1949. 27 p. Map. 99.65 V55

1946. VENEZUELA. DIRECCION FORESTAL Y DE CONSERVACION DE SUELOS. La erosión de los suelos, sus causas y sus daños. Ed. 3. Caracas, 1949. 19 p. 56.7 V55

1947. VENEZUELA. SEC. DE DIVULGACION AGROPECUARIA. Estudio de las zonas forestales del Estado Portuguesa. Caracas, 1949. 65 p. Illus. Maps. 99.65 V55E

The Venezuelan Ministry of Agriculture obtained its original information from M. R. Turner, J. P. Veillon, H. M. Curran and L. Cieslinski.

1, Description of the plains country; 2, The silvicultural problem; 6, Forest exploitation; 7, Economic aspects of the lumber industry; 8, The Forest Service and its organization; 9, Investigation of Venezuelan timbers; 10, Forest fires; 11, Problems related to the mountainous area; 12, Reforestation.

1948. VENEZUELA. SEC. DE DIVULGACION AGROPECUARIA. Vegetación y agricultura en la Isla de Margarita, by G. Budowski.

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Caracas, 1949. 18 p. Illus. Maps. 457.5 V55

1949. VENEZUELA timber resources described. *Timberman* 35(4): 43. Feb.1934. 99.81 T484

Description by a business observer who noted logging methods, species logged, and other industrial factors affecting forestry in Venezuela.

1950. VOGT, W. The population of Venezuela and its natural resources. Washington, Pan Amer. Union, 1946. 52 p. Illus. 280.15 V86Po

1951. WALKEY, R. A. Tanning and shoemaking in Venezuela. *Shoe & Leather Rptr.* 250(9):13-14. May 29, 1948. 303.8 Sh7

Indicates divi-divi, mangrove, and imported quebracho extract as major tanning materials.

1952. WILLIAMS, L. Botanical exploration in the middle and lower Caura, Venezuela. *Trop. Woods* 62:1-20. June 1940. 99.08 Y1Tr

An illustrated account entitled The Caura Valley and its forests, appears in *Geog. Rev.* 31:414-429. July 1941. 500 Am35G

1953. WILLIAMS, L. Exploraciones botánicas en la Guayana venezolana. Caracas, Venezuela Ministerio de Agricultura y Cría, 1942. 468 p. 457.5 W67

Pt. 1 includes a description of the forests, and a list of forest products including timber trees and tannin plants; Pt. 2 is an annotated list of genera and species, with an index to vernacular names.

1954. WILLIAMS, L. Forests of the upper Orinoco. *Trop. Woods* 91:17-38. Sept.1947. 99.08 Y1Tr

In addition to listing the forest tree species by regions, makes some attempt to evaluate possibilities of exploitation.

1955. WILLIAMS, L. Forests of the Venezuelan Guiana. *Trop. Woods* 68:13-40. Dec.1941. 99.08 Y1Tr

1956. WILLIAMS, L. Maderas económicas de Venezuela. Venezuela. Venezuela Ministerio de Agricultura y Cría B. Téc. 2, 97 p. Ref. 1939. 9.95 Ag82

Utilization of the principal timbers of Venezuela, including a glossary of terms, and descriptions of 65 trees and their woods.

1957. WILLIAMS, L. Natural resources of Venezuela. In *Plants and Plant Science in Latin America*, p.293-295. Ref. Waltham, Mass, *Chron. Bot.*, 1945. 453 V58

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Timbers, p.294-295.

- BRASIL MADEIREIRO.** 94 Ave. Churchill, Rio de Janeiro, Brazil. Monthly, since about 1945. Industrial and technical aspects of forestry.
- CARIBBEAN FORESTER.** U. S. Forest Service, Tropical Forest Experiment Station, Rio Piedras, Puerto Rico. Quarterly, since October, 1939.
- ECUADOR, DEPARTAMENTO FORESTAL, PUBLICACIONES.** Quito. A numbered series begun in 1949. Forest policy and special problems are treated.
- FORESTRY ABSTRACTS.** Commonwealth Forestry Bureau, Oxford, England. A quarterly abstract journal of world-wide scope, first issued in 1939. A section at the end of each issue, entitled Forestry the World Over, briefly reviews current events. The annual index to this publication is arranged by author, subject, species, and geographical location.
- MADERIL.** 268 Bolivar, Buenos Aires, Argentina. Irregular, first issued in 1928. A lumber industry periodical containing occasional articles on technology and forest legislation.
- MEXICO, DEPARTAMENTO FORESTAL Y DE CAZA Y PESCA, BOLETIN.** Mexico, D. F. Irregular, since 1935. Includes Department reports and reviews of division activities, with some general articles on policy, education, cooperatives, fire-fighting, and reforestation. Reproduces forest legislation, and some issues tabulate production statistics.
- MEXICO FORESTAL.** Sociedad Forestal Mexicana, Mexico, D. F. Now irregular, issued since 1923. Articles on professional subjects, legislation, and statistics from official sources.
- TROPICAL WOODS.** Yale University, School of Forestry, New Haven, Conn. Formerly a quarterly periodical, now irregular. Begun by S. J. Record in 1925, to publish information on identity, properties, and uses of all tropical woods, with some emphasis on those of the New World. Has two unnumbered cumulative indexes, one a general subject index and index to scientific names (December, 1949), and the other an index to vernacular and trade names (May, 1950.).
- UNASYLVA.** Food and Agriculture Organization of the United Nations, Forestry Division, Rome, Italy. Quarterly, begun in 1947. Separate articles on Latin-American forestry, and a section in each issue entitled News of the World.
- WOOD.** Tothill Press, London. Monthly, since 1936. Chiefly wood products and utilization.
- ZEITSCHRIFT FUR WELTFORSTWIRTSCHAFT.** Bundesanstalt für Forst-und Holzwirtschaft, Reinbek, Germany. Formerly monthly; irregular since World War II. Begun in 1933. Separate articles on Latin-American forestry, and a section in each issue entitled International Forestry Review.

<u>Item</u>				<u>Item</u>
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Abarco. <u>See</u> Cariniana pyriformis.				
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			887	Colombia			1231 1256
British			167	Costa Rica			989
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British Honduras			960		1303 1304		1333
Chile			1105	Ochroma lagopus			136
Colombia	1227	1228	1246	Costa Rica			994 1003
Ecuador	1272	1287	1322	Ecuador	1307	1318	1327
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Guatemala	907	1022	1028				1335 1410
Honduras		907	1041	Ocotea pretiosa			801
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Mexico	1466	1483	1490 1503		692 728 796
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Mexico	1507	1543		1578					
Guatemala				1030					
Mexico	1457	1459		1482					1484
1506	1511	1514		1547					
1605	1615	1638		1647					1671
1675	1684	1746		1757					
Uruguay				1884					
Pinus caribaea				957					
British Honduras		928		935					
		940		976					
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Piptadenia				510					
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371	419	433		509					
Brazil				670					
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Canal Zone				1079					
Chile	1108	1130	1153	1175					1191
				1003					
Costa Rica				1010					
Guatemala				1864					1884
Uruguay	1849	1861		1864					
Platonia insignis				1398					
Platt R R			90	1812					
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Plywood									
Argentina	278	291		316					
				317					333
Brazil	567	592		612					652
		690		695					740
British Guiana				1350					
Central America				910					
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Mexico			1484	1629					
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86	92	94	111	119					
			223	1776					
Argentina		54	257	261					
270	286	307	310	325					
326	346	348	349	355					357
Bolivia		54	525	538					
Brazil	54	548	562	563					
580	581	584	590	601					
618	628	633	645	648					
656	658	665	682	689					
			708	797					
Amazonia				593					
Ceará				558					
Maranhão				558					
Northeast				681					
Paraíba				577					
Pernambuco			654	655					
			661	680					
Santa Catarina				552					
São Paulo				673					
South		672	686	700					
British Guiana			27	41					
54	1344	1356	1369	1376					1380
British Honduras			27	41					
922	931	934	938	952					
954	955	959	969	971					
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Chile	54	1107	1112	1116	1116	Poulalion M						1411			
	1126	1127	1135	1136	1142	Poulsenia						238			
	1145	1173	1178	1179	1189	Pozo Rodríguez P del						1249			
					1776							1250			
Colombia		1192	1193	1196	1196	Prado O de A						664			
	1199	1201	1204-1206	1235	1235	Precious woods									
	1238	1240	1248-1251	1253	1253	Argentina						514			
			1256	1260	1265	Brazil		790				792			
Costa Rica		54	978	987	987	British Guiana						1352			
			990	991	995	Colombia						1256			
Ecuador		1278	1280-1282			Mexico	1644	1650				1711			
	1296	1300	1302	1330	1330	Panama						1066			
French Guiana			1390	1410	1410	El Salvador						1086			
Guatemala		1012	1015	1776	1776	Venezuela						1918			
Mexico	54	1455	1458	1459	1459	Preissig R						1412			
	1468-1470	1477	1491	1502	1502	Preservation									
	1521	1523	1543	1557	1560	Central America						1456			
	1562	1564	1567	1579	1581	Chile						1180			
	1594	1597	1598	1604	1607	Mexico						1456			
	1610	1621	1631	1632	1646	Venezuela						1886			
Chiuhahua					1586	Presnall C C						1753			
Durango					1627	Pretel Vidal A R						1823			
México (State)					1506	Primavera. <u>See</u> Cybistax donnell-smithii.									
Puebla			1588	1619	1619	Production									
Tlaxcala					1617	Brazil		562				622			
Nicaragua					1055	British Honduras						941			
Panama					1075	Central America						912			
Paraguay		1767	1771	1776	1776	Chile	1139	1140	1145	1183	1183	1183			
Peru	54	1813	1826	1836	1836							1190			
					1815	Ecuador			1304	1324	1324	1324			
					1820	Guatemala						1006			
Tingo Maria					1820	Mexico	1460	1465	1487	1492	1492	1492			
El Salvador					1085		1509	1511	1515	1554	1558	1558			
Surinam		54	1422	1424	1424				1568	1582	1600	1600			
			1428	1432	1432	Peru						1817			
Uruguay		1850-1852	1854	1854	1854	<u>See also</u> Statistics.									
	1858	1859	1873	1878	1879	Products	39	46	50	69	69	69			
				1881	1882		84	89	117	216	216	216			
Venezuela		54	1776	1905	1905	Argentina		270	348	409	409	409			
	1906	1907	1909	1917	1928					458	458	458			
			1939	1945-1947	1947	Brazil	570	572	575	617	617	617			
Polygonaceae								677	692	698	698	698			
Surinam					1425	Amazon basin			643	650	650	650			
Popenoe W		917	1017	1018	1018					829	829	829			
			1040	1321	1321	Amazonas				631	631	631			
Poplar. <u>See</u> Populus.						British Guiana			108	1362	1362	1362			
Populus															
Argentina		287	372	388	388	British Honduras		108	924	924	924	924			
			404	493	493			929	930	946	946	946			
Chile					1108	Chile		1125	1136	1187	1187	1187			
Uruguay					1868	Colombia		1193	1195	1198	1198	1198			
Porsch O					996			1240	1241	1245	1256	1256			
Porto, P. C. <u>See</u> Campos Porto, P.										1257	1264	1264			
Portuguesa (Venezuela) Serv.						Costa Rica				993	995	995			
Forestal					1947	Ecuador		1262	1270	1284	1284	1284			
Posts			264	692	692						1333	1333			
Pouderoux R					195	French Guiana			1403	1404	1404	1404			

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Mexico	1458	1463	1505	1511		1348	1371	1377	
	1521	1558	1559	1561	British Honduras	925	963		
		1565	1571	1591	Chile		1174		
Baja California			1467		Colombia		1256		
Campeche			1494		French Guiana	1411	1420		
Michoacán			1500		Guianas		1339		
West			1467		Mexico	1457	1486	1506	1580
Nicaragua	1055	1061	1064				1646	1653	
Paraguay	1761	1770	1776		Panama		1082		
			1777		Paraguay		1761		
Peru	1800	1817	1824	1838	Peru		1790	1802	
				1844	Uruguay		1849	1868	
El Salvador			1093		<u>See also</u> Pulp and paper.				
Surinam			1428		Purdue University, Dept of				
Venezuela	1891	1895	1902		Forestry			910	
	1907	1928	1941		Purpleheart. <u>See</u> <i>Peltogyne</i>				
Amazonas			1936		<i>pubescens</i> .				
Guiana			1953		Qualea		152	1410	
Llanos		1897	1898		Quebracho	9	172	176	
Orinoco basin			1910			312	315	322	340
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e. g. Charcoal; Lumber.						274	286	302	314
Prosopis		467	1815			335	336	341	348
Prosopis alba			438				378	408	429
Prosopis caldenia		444	466		Brazil		692	864	
Prosopis juliflora			1755		Paraguay	431	1762	1773	
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Policies and programs.					stocking			429	
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Pulle A A			1443		sperma quebracho-blanco.				
Pulp and paper		17	123		Quebracho colorado. <u>See</u>				
Argentina			266		<i>Schinopsis lorentzii</i> .				
Brazil	617	664	692	699	Quercus		192		
British Guiana			1377		Central America	978	1026		
industry		56	87		Guatemala		1026		
Argentina			293		Mexico	1536	1757		
Brazil	551	556	565	568	property comparisons		702		
	611	621	629	630	Quercus copeyensis	978	982		
			707		Quevedo M A de	92	1589		
Ecuador			1268			1590-1600	1703-1707		
Mexico	1457	1489	1532		Quillaja saponaria		1168		
		1545	1580		Quillay. <u>See</u> <i>Quillaja saponaria</i> .				
Mexico	1458	1520	1545		Quintanar F		1601		
Pulpwood	168	215	235		Quinteros M	1871-1873			
		241	248	718	Rafalski J		865		
Argentina		278	293	319	Ragonese A E	485-	491		
	342	347	371	404	Raibaudi M		1413		
			507	516	Railway ties. <u>See</u> Ties.				
Brazil	551	570	585	621	Railways				
	677	694	707	795	Mexico	1505	1546	1579	1625
			871	883	Rain forest			37	
Amazon basin		556	724		British Guiana	1341	1358		
			725		Colombia		1194		
Pará			626		Costa Rica		977		

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Rancourt E de				867	Surinam		1424		1432
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Recalde de la Espriella V				1258	88	98	114	120	125
Recart H	1055	1176-1180			Amazon basin				45
Recke Graf				997	Argentina	270	289		301
Record S J		95- 100		184	Misiones		313	332	359
198- 218	869	958- 960			Santiago del Estero				281
963 1019-1021	1041	1062			Bolivia	526	529	533	538
1077 1081 1082	1259	1378			Brazil	565	566	588	590
1709 1924	1935				620	657	678	699	706
Reeseman Fryer E				538	793				811
Reforestation				348	Amazon basin			561	650
Argentina	280	282		337	Espírito Santo			697	719
341	346			350	Jequitinhonha River basin				838
Buenos Aires (Prov)				338	Minas Gerais				685
Nahuel Huapi area				454	São Paulo				553
Pampas				481	British Guiana		22		42
San Luis				432	1343 1347	1370			1373
Brazil	585	586	596	674	British Honduras		22		42
Alagoas				646	931 936 961	962			964
Amazon basin				643	Caribbean region				90
Bahia				642	Central America		910		916
Minas Gerais		550		676	Chile	1101	1111	1113	1117
Chile	1102	1107	1108	1115	1125 1128 1129	1136			1137
1119 1138 1142	1144			1163	Colombia	1203	1214		1228
				1169	1236	1237			1257
Colombia				1251	Costa Rica	977	987		990
Ecuador		1300		1302	Ecuador	1274	1275		1301
laws and regulations				73	1305	1306			1330
Mexico	1479	1490	1522	1545	European interest		51		1912
Peru			1816	1823	French Guiana				1417
El Salvador				1085	Guatemala				1006
Uruguay	1867	1873		1882	Honduras				1042
Venezuela	1886	1946		1947	Mexico	1463	1470	1480	1509
Regeneration					1510 1520 1543	1557			1567
Brazil				794	1574 1599 1600	1601			1651
British Honduras				940	Baja California				1700
Chile		1167		1172	Campeche				1555
Mexico				1543	Jalisco		1495		1580
Venezuela				1901	Michoacán				1500
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Sonora		1604	
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Nicaragua	1052-1055	1060	
Panama		1075	
Paraguay	1770	1771	1776
			1778
Peru		1788	1800
El Salvador			1100
Surinam	1428	1450	
United States interest	1	26	
30	44	63	107
			137
	218	678	1275
Uruguay		1854	1863
Venezuela	1886	1912	1950
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1549 1551	1556	1559	1561		1895 1900	1907	1908	1918	
1568 1573	1582	1595	1609		1919 1921	1922	1927	1930	
1629 1647	1652	1669	1685		1942 1947	1949	1956	1957	
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			1373	1383	
British Honduras	906	923			
			963		
Central America			920		
Chile	1105 1107a	1120 1128			
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Colombia	1200	1208 1216			
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Santa Marta Valley			1259		
Sierra Nevada de Santa Marta			1230		
Costa Rica	977 980	983 990			
Ecuador	1270	1272 1284			
	1286 1295 1301	1308 1310			
		1322			
French Guiana		1390 1410			
growth rate			816		
Guatemala	906	907 1005			
	1015 1019-1022	1028 1029			
Honduras	907	1039 1041			
Mexico	918 1543	1652 1661			
	1680 1685 1711	1722 1752			
East			1692		
Guanajuato			1754		
Michoacán			1500		
Oaxaca			1697		
Quintana Roo		918 1667			
Tehuantepec			1758		
Yucatán	1666	1676 1749			
			1750		
Nicaragua		1055 1062			
Panama	1066 1073	1077 1078			
Peru	1807 1808	1811 1825			
		1830 1833			
poisonous			920		
El Salvador	1085 1089	1090 1097			
	1092 1093	1096 1097			
Surinam	1425 1428	1431 1441			
Uruguay	1853 1855	1861 1861			
	1865 1873	1876 1883			
Venezuela	1893 1900	1923 1923			
	1925 1928 1930	1936 1937			
		1939 1942 1956			
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Mérida			1913		
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				166	Baja California				1700
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	990	1330	1481		Sonora				1757
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