

Forestry Theses  
Accepted by  
Colleges and Universities  
in the United States  
1900-1952

*Compiled by*

KATHERINE W. HUGHES  
Library

*Subject Index by*

RAY A. YODER and WILLIAM I. WEST  
School of Forestry  
Oregon State College



Bibliographic Series  
Number 3

OREGON STATE COLLEGE  
CORVALLIS, OREGON  
1953



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## PREFACE

In 1934 the Library of Oregon State College, at the suggestion of our School of Forestry, undertook, as an NYA project, the compilation of a list of theses in the field of Forestry. The resulting typescript bibliography, and the several supplements, were found to be immediately useful by Schools of Forestry throughout the country. As a result the Society of American Foresters suggested some time ago that a more complete list be published for general distribution. This larger bibliography we have now compiled and, with the cooperation of our School of Forestry, here present.

While the chief burden of preparing this record of graduate study in forestry and closely allied fields has fallen on Miss Hughes many other persons have contributed to it. Primary acknowledgment should go to Miss Carrie Thory, formerly of the Library Staff, who, under great handicaps, supervised preparation of the original NYA typescript lists. Miss Margaret Field, deceased, former Engineering Librarian, worked extensively on the list, as did her successor, Mr. Hubert Sauter, now Engineering Librarian at the University of Minnesota. Throughout, from the original compilations to the present, the several bibliographies have had the sympathetic support and encouragement of our School of Forestry. Dean Paul Dunn and Professor Walter F. McCulloch have given much assistance to the bibliography here published. Cost of publication has been shared equally by the Library and the School of Forestry. It is our hope to issue supplements from time to time to keep the record up to date. In order to make these supplements as accurate and as useful as possible it will be appreciated if users will call errors and deficiencies in the bibliography as now published to our attention.

It has, of course, been necessary for Professors Yoder and West to work from titles only in preparing the subject index. For those titles which were lengthy and descriptive there is reasonable assurance that the subject indexing is correct, especially since all theses which dealt with several subjects were cross-indexed. However, because of the cryptic nature of a number of titles, it has not been possible to do more than index them within the general field of the subject. For those titles dealing with a very minute subdivision of a general field indexing was done under a rather broad subject classification to avoid making the index too long and cumbersome. In spite of the limitations imposed by the method of its preparation the index is expected to be a very useful feature of the bibliography.

As I have looked over this record of half a century of graduate work I have, as a layman, been impressed by the great progress

which has been made in Forestry and its allied fields and the substantial contributions which the graduate schools have made. All of us at Oregon State College have been pleased to record systematically the studies of the past fifty years as a further contribution to progress and advanced study and research.

December 1953

WM. H. CARLSON  
*Director of Libraries*

# Forestry Theses, 1900-1952

## UNIVERSITY OF CALIFORNIA

1916

1. Dunning, Duncan. A working plan for the Del Monte Forest of the Pacific Improvement Company.
2. Muzzall, Alexander Harrison. The management of redwood.

1917

3. Krueger, Myron Edward. The bishop pine.

1923

4. Lott, Hugh Carlin. The production and viability of redwood *Sequoia sempervirens* seed.

1924

5. Barnes, John Scott. Redwood growth studies: I. The relative volume production of sprouts and seedlings in second growth. II. The height growth of young redwood in mixtures. III. A site classification for virgin stands.
6. Pemberton, James Emmons, Jr. The relation of bark to total volume in coast redwood *Sequoia sempervirens* Endl.
7. Stanford, Everett Russell. A short history of California lumbering including a descriptive bibliography of material on lumbering and forestry in California.

1925

8. Grasovsky, Amihud. Climate in relation to timber and forage production under natural conditions.
9. Jacobs, Allen Walter. Hastening the germination of sugar pine seed.
10. Miller, William Bryon. Sheep production on the California National Forest.

1926

11. Edwards, William Grimm. The hardwood-using industries of the San Francisco Bay region.
12. Siggins, Howard William. Dissemination by wind of seeds of important conifers of California.
13. Weber, Arnold Newton. Redwood cut-over lands and their use.

1927

14. Harper, Verne Lester. The stem form of red fir *Abies magnifica* Murr.
15. Harris, Marion Reimoehl. A grazing management plan for the Berkeley hills.
16. McLeod, Kenneth. Deer in their relation to man and forest.

1928

17. Cowlin, Robert William. The wholesale middleman in the lumber industry.
18. Geltz, Charles Gottlieb. Semesan and uspulun for the control of "damp-ing-off" and as a stimulus to germination.
19. Horning, Walter Harold. The rôle of bunching in tractor logging.

20. Wright, Andrew Dixon. An ecological study of *Baccharis pilularis*.
21. Wright, Ernest. The viability of native and exotic seed exposed to high temperatures.

## 1929

22. Allen, Urban Charles. Balancing farm and forest crops through proper use of land.
23. Craddock, George Washington. The successional influence of fire on the chaparral type.
24. Gustafson, Carl Alexander. A study of the discoloration of painted surfaces on sugar pine and redwood.
- 25.\* Lowdermilk, Walter Clay. Factors affecting surface run-off of rainfall and the surface erosion of soil profiles.
26. Parker, Kenneth William. Growth of *Stipa pulchra* and *Bromus hordeaceus* as influenced by herbage removal.
27. Sinclair, Jesse Donald. A study of plant development in different soil horizons.
28. Wilson, Earl Gordon. The stem form of Douglas fir.

## 1930

29. Barnes, George Hector. The development of even-aged stands of lodgepole pine in British Columbia.
30. Hughes, Bennett Owen. Factors affecting cost of logging with fairlead arch wheels.
31. Neetzel, John Raymond. A study of the root development of western yellow pine seedlings in relation to the distribution of water in the soil.

## 1931

32. Heyward, Frank deCaradeuc, Jr. The effect of a grass vegetation upon soil moisture.
33. Mirov, Nicholas Tiho. Methods of oleoresin distillation of California pines.
34. Owe, Johan Lund. The effect of nitrification upon the vegetation and forest reproduction in some of the California pine forests.
35. Plair, Theodore B. Some factors affecting the cost of bucking in the California pine region.
36. Spence, Lister E. The use of hygrometric paper as an index of the loss of water through transpiration of selected plants.
37. Swift, Lloyd Wesley. Factors influencing the succession of brush and grass communities in a delimited habitat.

## 1932

38. Freeman, John Redford. A study of sugar pine with emphasis on properties and uses.
39. Li, Teh-i. Seasonal distribution of soil moisture in woodland, brush, and grass associations of the central Pacific Coast region of California.
40. Morris, William Griffith. The effect of high temperature and moisture content upon seed from Douglas fir and western yellow pine.

## 1933

41. Curry, John Robert. Some applications of statistics to the analysis of forest fire data.

\* Doctoral dissertation.



42. Davis, Wendell Erving. Growth rings of certain conifers and their relation to precipitation and temperature.  
43. Garland, Hereford. The possibility of charcoal as a pulverized fuel.

## 1934

44. Robertson, James Campbell Hay. Relative transpiration of seedlings of certain coniferous species.  
45. Swensen, Marriner. A study in delayed germination of sugar pine seed.

## 1935

46. Darling, Louise Marie. *Protocoronospora* on *Phoradendron flavescens* in California.  
47. Mitchell, John Nelson. The comparative histology of the secondary xylem of *Sequoia gigantea* and *Sequoia sempervirens*.  
48. Spassky, Boris Alexander. The development of ponderosa pine seedlings under the different conditions of illumination and soil moisture.

## 1936

- 49.\* Isenberg, Irving Harry. Chemical studies on the wood of white fir *Abies concolor*.  
50.\* Mirov, Nicholas Tiho. The relation of some internal factors to the germination of seeds of *Pinus jeffreyi* Murr and *Pinus lambertiana* Dougl.

## 1937

- 51.\* Cox, John H. Organization of the lumber industry in the Pacific Northwest 1889-1914.  
52.\* Shirley, James Clifford. The woody plants of Oklahoma.  
53. Smith, Donald Johnson. Leaf spot diseases of *Platanus* species caused by *Stigmella* and *Stigmia* species.

## 1938

- 54.\* Linsley, Earle Gorton. The Cerambycidae of California.

## 1939

55. Gressitt, Judson Linsley. The hispine beetles of China (Coleoptera: Chrysomelidae).  
56.\* Jensen, Vernon H. Labor relations in the Northwest lumber industry.  
57.\* Josephson, Horace Richard. Factors affecting costs and returns of timber production in second growth pine stands of the Sierra Nevada foothills.  
58. Kelly, Thomas Smith. The marketing of redwood lumber through wholesale middlemen.  
59. Stahler, Nathan. A comparative morphological study of two species of *Heliothis* (Lepidoptera: Noctuidae).

## 1940

60. Fons, Wallace Leo. Analytical considerations of model forest fires.  
61. Horton, Jerome Swift. The sample plot as a method of quantitative analysis of chaparral vegetation in southern California.  
62.\* Olson, Alven Jennings. A root disease of Jeffrey pine and yellow pine trees at Lasco, Lassen County, California.  
63. Weidberg, Dorothy. The history of John Kentfield and Company, 1854-1925, a lumber manufacturing and shipping firm of San Francisco.

\* Doctoral dissertation.

## 1947

64. Anderson, Henry Walter. Soil freezing and thawing as related to some vegetation, climatic and soil variables.  
65. Day, Maurice W. The control of certain shrubs in the Lake States.

## 1948

66. Fenley, John Morris. An airplane seeding experiment on ranges of deciduous cover of central Utah.  
67. Hervey, Donald Franklin. Reaction of an annual-plant community to fire.  
68. Marston, Richard B. Effects of contour-trenches and vegetational recovery upon the hydrologic characteristics of Parrish Basin, Utah.  
69. Mezger, Robert William. The effect of spacing on the growth of ponderosa pine.

## 1949

70. Badran, Osman A. Maintenance of seed viability in closed cone pines.  
71. Hedrick, Donald. Reseeding burned chaparral lands.  
72. Street, James Eugene. Survival of brush seedlings on California game ranges.

## 1950

73. Blanford, Robert Howard. The water economy of two species of chaparral growing on two soil types.  
74. Burton, Robert Edward. A study of the problems related to the peeling of bark from second-growth redwood.  
75. Packer, Paul Earl. Development of requirements for effective watershed protection.  
76. Rogers, Bruce Joseph. The effect of fire on the germination of seed of *Arctostaphylos viscida* Parry.  
77. Schubert, Gilbert Herman. Viability losses of sugar pine *Pinus lambertiana* Dougl. seed infected with certain fungi.

## 1951

78. Bissell, Harold Deane. Nutritive value of winter deer browse with respect to burning and growth stage.  
79.\* Duffield, John Warren. Interrelationships of the California closed-cone pines with special reference to *Pinus muricata* D. Don.  
80. Edmunson, George Coleman. Mulch as a criterion of range condition classification.  
81.\* Taber, Richard Douglas. The influence of chaparral management on Columbian black-tailed deer populations.  
82.\* Zobel, Bruce John. The natural hybrid between Coulter and Jeffrey pines.

## 1952

- 83.\* Habib, Philip Charles. Some economic aspects of the California lumber industry and their relation to forest use.  
84. Spivey, Walter Ray. The role of miner's lettuce, *Montia perfoliata* (Donn) Howell, in California burned brushlands.  
85. Tackle, David. The value of site preparation as related to ground-cover density in natural regeneration of ponderosa pine.  
86. Zinke, Paul Joseph. Factors useful in the determination of site quality of unstocked timberlands.

\* Doctoral dissertation.

COLORADO AGRICULTURAL AND  
MECHANICAL COLLEGE

## 1932

87. Morris, Melvin S. Forage value of chaparral.
88. Stoddard, Laurence A. Methods of determining range capacity.

## 1947

89. Bement, Robert Earl. Ranch management plans for five cattle ranches in northern Colorado.
90. Cravens, Jay H. Progress report on Forestry research project 70, preservative treatment of fence posts. Fort Collins, Colorado Agricultural Experiment Station.
91. Dils, Robert E. Instructions for lodgepole pine timber surveys.
92. Dils, Robert E. Outline for a five-day guard field training course.
93. Herman, Francis R. An erosion survey of the lower Gordon Creek watershed, Poudre River drainage, Larimer County, Colorado.
94. Myers, Clifford A., Jr. Snow surveys and forest management in the Rocky Mountains of Colorado.
95. Wandrey, Clarence J. History and development of farm woodlands.
96. Wilson, Robert Lee. Grade standardization of forest planting stock.
97. Wilson, Robert Lee. Interest measurements of forestry students.

## 1948

98. Barrett, Austin D., Cravens, Jay H., Dewers, Robert S., and Wylie, Aubrey. Report on Colorado blue *Picea pungens* timber testing project. (This is a master's thesis for Barrett and Wylie)
99. Black, R. J. An annotated bibliography of forest-game management literature since 1930.
100. Clevenger, John C. Prediction of success in the division of forestry, Colorado A & M College.
101. Dewers, Robert S. A problem in the tight cooperage industry; Concerning the diminishing supply of white oak.
102. Orr, Howard K. A study of correlation of streamflow with precipitation.
103. Porter, Ivan R. Methods of propagating range plants.
104. Shields, C. A. Forest fire insurance.
105. Singh, Saranjit. Forecasting maximum probable precipitation.
106. Smith, P. C. A study of modern wood-working adhesives and gluing techniques.
107. Strawn, William W. Some effects of sagebrush fires on seed and plant succession.

## 1949

108. Comer, F. G. Logging damage in salvaging beetle-killed spruce stands.
109. Green, D. A. The influence of cutting methods on lodgepole pine reproduction.
110. Gruenfeld, J. J. Winter logging and milling study in northern Colorado.
111. Johnston, Everett Lee. Wood waste utilization.
112. Landenberger, C. J. Utilization practices of selected lumber companies manufacturing ponderosa pine in Idaho and Washington.
113. Logan, J. F. Properties of synthetic resins used as wood-bonding adhesives.

114. Maxey, Clyde A. A study of the minute structure of woody browse plants.
115. Meeker, Victor K. Reproduction of Engelmann spruce in the central Rocky Mountains.
116. Monninger, L. V. An outline for logging an experimental watershed in the Rocky Mountain region.
117. Roberts, Paul B. White pine industry of Maine.
118. Singh, Satnarayan. Correlation of precipitation with tree rings.

## 1950

119. Boyd, Ray J. The influences of nail head size and slat thickness on the nail head pull-through resistance of native Colorado woods.
120. Brown, Harry E. A study of watershed conditions at the source of the Yangtze River.
121. Gause, Dwight W. Methods of using ammate crystals to kill ponderosa pine in the Southwest.
122. McCaskill, James A. Forest taxation on the private forest lands of the eastern U. S.
123. Washburn, Richard I. Test of insecticides for the control of the Black Hills beetle *Dendroctonus ponderosae* Hopk.
124. Wiley, Kenneth N. The effect of bark beetle infestations on the quality of Engelmann spruce seeds.
125. Zink, Robert Cramp. An analysis of the development, organization, and future aspects of the nature interpretative field.

## 1951

126. Denney, Richard N. Program for beaver administration and management in Colorado.
127. Gilbert, Douglas L. Economics and related biology of the black bear in Colorado.
128. Holt, Burton P. Mountain climbing related to recreation program of our national parks and forests.
129. Remington, Jack D. Food habits of the marten *Martes caurina origenes* (Rhoads) in Colorado as related to small animal availability.

## UNIVERSITY OF CONNECTICUT

## 1942

130. Smith, Allan G. A wildlife management plan for the Lanier tract of the East Haddam Fish and Game Club.

## CORNELL UNIVERSITY

## 1913

131. Kinney, J. P. Forest legislation in America prior to March 4, 1789. (Published as: New York Agricultural Experiment Station (Cornell) Bulletin 370. 1916)

## 1914

132. Hahn, Clarence S. Valuation of forest and pasture land.

## 1915

133. Guise, Cedric Hay. Possibilities of private forest management in New York State.
134. King, P. C. Principles of forest administration in selected countries of Europe, America, and Asia, with suggested application to China.
135. Lamont, John Donald. Methods of intensive reconnaissance.
136. Paul, Benson Howard. An ecological study of typical forest plantations in New York State.
137. Steer, Henry B. Some problems of nursery installation with special reference to white pine in the Northeast.

## 1916

138. Fielding, Franklin Roderick. A silvicultural study of the hard maple with special reference to the F. A. Cutting tract in St. Lawrence County, N.Y.
139. Graham, Samuel A. The biology and control of the white pine weevil *Pissodes strobi* Peck.
140. Haman, M. B. The use of commercial fertilizers in forest nursery practice.
141. Hu, Shien Sung. Conditions fundamental to reforestation in China with special reference to factors determining choice of species.
142. Maloy, Thomas Patrick. Treatment of cutover forests in the Adirondacks with particular reference to the F. A. Cutting tract in St. Lawrence County, N.Y.
143. Spamer, George Adam. Seed production of forest trees.

## 1917

144. Millen, Frederic Hartwell. Artificial reforestation on the Luther Preserve, Saratoga County, New York.
145. Millen, Mabel Gertrude Beckley. A study of forest tree seeds with special reference to white pine *Pinus strobus* Linn.
146. Rogers, Ernest Cleveland. Delayed germination among the five-needled pines with particular reference to *Pinus monticola* Dougl.
147. Schleicher, Francis Grant. The staining and finishing of woods.
148. Stults, Herbert Milton. A critical discussion of state forestry laws.

## 1918

149. Kraus, Albert Abraham. A study of red pine with reference to its suitability for reforestation in Tompkins County, N.Y.

## 1920

150. Coville, Perkins. Silvicultural problems in the management of forests of the Adirondack hardwood type.
151. Sweeney, Samuel Chadwick. Forest planting reconnaissance and survey.

## 1921

152. Dain, Bryant Depew. Seed production of white pine *Pinus strobus* Linn. in the vicinity of Ithaca, N.Y.
153. DuMond, Frank Lee. A plan of forest administration in New York State.
154. Ten Eick, Charles Watson. A plan of forest administration for Pennsylvania.
155. Vettel, Henry. The location, supply, and management of the chief pulp-wood species in the United States.

## 1922

156. Apgar, William Burnet. The administration of grazing on the National forests.  
157. Bosworth, Henry B. Volume and growth studies of trees near Ithaca, with a detailed study of the Meade woodlot, cut in 1921-1922.  
158. Franco, Felix (y Tolosa). The organization and regulation of tropical forests with particular reference to British India and the Philippine Islands.  
159. Herbert, Paul A. Standing timber insurance.  
160. Hine, Willard R. B. The pulp mills of New York State, with special reference to the available supplies of pulpwood.  
161. Simonds, Walter Wesley. Natural regeneration on cut-over hardwood lands in the western Adirondacks.

## 1923

162. Groenewald, Johan Andries. The growth and culture of Eucalypts.  
163. Lumsden, George Q. Artificial reforestation in application to the principal timber species in the northeastern United States.

## 1924

164. Curry, John R. A study of the growth of spruce and balsam in the Adirondacks.

## 1925

165. Cobb, Francis Ezra. A study of afforestation in the Great Plains region from its early settlement to the present time.  
166. Doppel, A. A. A study of the diameter growth of hard maple.  
167. MacMillan, Warren B. A silvicultural study of basswood.  
168. Wakeley, Philip Carman. Sustained yield management of New York State.

## 1926

169. Bump, Nelson Gardiner. Some observations on the germination of forest tree seeds and the early development of the seedlings.  
170. Davis, James E. A study of the natural reproduction of eastern white pine *Pinus strobus* Linn.  
171. Hamilton, Neale Russell. The growth of white oak and red oak.  
172. Teng, Shu Chun. Chinese forest conditions and recommendations for a forest policy for China.  
173. Uyl, Daniel Den. White oak and red oak in the Ithaca region—a preliminary silvicultural study.

## 1927

174. Erway, Edgar W. A study of the lumber industry and its merchandising problems.  
175. Frank, Bernard. The utilization of beech, birch, and maple in the pulp and paper industry of the northeastern United States.  
176. Smith, Harold Pitt. A study of the growth of hemlock in the Ithaca region.

## 1928

177. Kolbe, Ernest L. Taper and volume studies of basswood, white ash, and black birch in the Arnot Forest.

178. Moran, Wendell. A study of the growth of basswood in the Ithaca region.  
179. Wilkins, Austin H. Diameter growth of commercial trees with special reference to current annual increment. Appendix: Diameter growth tables.

## 1929

180. Aughanbaugh, John E. A study of forest distribution on Dunkirk, Groton, and Lordstown soil types in the vicinity of Ithaca, N.Y.  
181. Beatty, David P. The Arnot Forest: its foundation for management.  
182. Gillett, Charles Alton. A survey of the wood-using industries of Broome, Chemung, and Tioga Counties, New York, with special references to the marketing and utilization of local woodlot products.  
183. Rudolf, Paul O. A study of the seedling root systems of certain forest trees.  
184. Spalteholz, C. O. R. The effect of soil covering on development of red pine.  
185. Wilcox, Ralph Furness. The financial management of the Arnot Forest, Schuyler County, N.Y.

## 1930

186. Erdmann, Frederick John. The organization of the pulp and paper industry.  
187. Hedden, George W. Liberation and release cuttings in the northeastern United States.  
188. Olsen, Carl Frederick. Volume increase in young pine—a statistical analysis of the rate of annual increase in foliage volume and an interpretation of its significance.  
189. Wilm, Harold Gridley. A study of fall and spring sowing and related problems of forest nursery practice.

## 1931

190. Hinkley, Kenneth Abbott. Nature and results of silvicultural treatment of two University woodlots.  
191. Switzer, Harry Diehl. Russian spruce—its quality, quantity, and economic significance.

## 1932

- 192.\* Croft, Alfred Russell. Some aspects of the reforestation problem in the State of New York.  
193. Donehower, Weston. A working plan for the Arnot Forest 1932-1942.  
194. Maisenhelder, Louis Carl. A study of the growth of spruce and fir in the central Adirondacks.  
195.\* Wilm, Harold Gridley. The relation of successional development to the silviculture of forest burn communities in southern New York.  
196. Wilm, Harold Gridley. Addendum to the thesis "A study of fall and spring sowing and related problems of forest nursery practice."

## 1933

197. Camp, John Robert. Some preliminary studies relating to forest fire weather.  
198. Chapel, William Lincoln. Recreational use of public forests.

\* Doctoral dissertation.

199. Cutler, Donald D. The effects of moist cold storage on the after-ripening and germination of the seeds of some broadleaf species.  
200. McConkey, Thomas W. The relation of forest planting in New York State to future utilization of the crop.  
201. Richey, A. Lynn, Jr. An analysis of survey methods as applied to young evenaged timberlands.

## 1934

202. Afanasiev, Michel M. The portable sawmill: a study of equipment, operating methods, results, and costs.  
203. Chaikin, Leon Edward. A statistical analysis of timber estimating in the hemlock-hardwoods type.  
204. Pond, James Dunbar. A method of determination of the cull per cent of beech in second growth stands in southwestern New York.

## 1935

205. Meagher, George Shaw. Forest management in a hardwood slope forest of western New York.

## 1936

206. Crandall, Vine. A study of the Cotton and Hanlon Lumber Company.  
207. Howard, Richard Frederick. A stock inventory of the Arnot Forest.  
208. Meyer, Emil Francis. A plan for the development of the proposed addition to the Arnot Forest.  
209. Parsons, George. Hardwood log grading in central New York.  
210. Wang, Yen-chieh. Some results of germination tests on seed of the 1935 crop.

## 1937

- 211.\* Afanasiev, Michel M. A physiological study of dormancy in seed of *Magnolia acuminata* L.  
212.\* Diebold, Charles Harbon. Some interrelationships between soil characteristics, water tables, soil temperature, and snow cover in the forest and adjacent open areas in south-central New York.  
Supplement to thesis, Appendices—soil profile descriptions, pH, snow cover, water table, and soil temperature data recorded in forest and adjacent open area in south-central New York.  
213. Mois, Herbert Joseph. Hardwood utilization in the Adirondacks.  
214. Rotundo, Frank Alorino. The recreational management of public forests including a recreational management plan for the Ten Mile River Reservation, New York.  
215. Van Order, Robert Arthur. An analysis of the growing stock in permanent sample plots at the Arnot Forest.  
216. Winch, Fred E., Jr. The establishment, survival, and early development of broadleaved plantations in New York State.

## 1940

- 217.\* Beekey, Cyrus Ezra. The relation of environment factors to periodic fluctuation of the invertebrate fauna of forest soil.  
218. Brown, Babette Isabelle. The history and development of the nature trail idea in the United States.  
219. Cooke, Emmy Lou. A study of the materials and methods of nature study in camps as shown by literature on the subject.

\* Doctoral dissertation.



- 220.\* Osterbert, John Oscar. A study of methods of measuring soil pressures and their relation to soil properties.
- 221. Petrides, George Athan. A study of hedgerows in winter and their relation to wildlife in central New York State.
- 222. Richard, Joseph Aurele. Forest type as related to certain soil characteristics in Kamouraska County, Quebec.
- 223. Thomson, Sheila Margot. Four contributors to the American Nature Movement.
- 224.\* Vessel, Matt Frank. A study of conservation education in the rural areas of the United States.

1941

- 225. Abel, George W. Factors influencing the natural establishment of hardwoods on abandoned fields in south central New York.
- 226.\* Cady, John Gilbert. Some relationships between forest type and certain chemical and mineralogical properties of podzol and brown podzolic forest soil profiles.
- 227.\* Rayner, Hedley John. The development of a management policy for the rainbow trout of the Finger Lakes.
- 228.\* Thurber, Walter Arthur. A study of the activity-suggestions in courses of study in nature study and elementary science.

1942

- 229.\* Cox, Leland G. Physiological study of dormancy in red oak and other hardwoods.
- 230.\* Smith, Ralph Albert. The biology of a small mammal community in a central New York woodlot.
- 231.\* Tryon, Clarence Archer, Jr. The biology of the pocket gopher *Thomomys talpoides*.

1943

- 232. Isfort, Louise Gertrude. A partial bibliography of the natural history of the Chicago region.
- 233. Potter, Mabel Annie. A study of the distribution of the woody plants of Adams Mountain and vicinity, Franklin County, Mass.

1945

- 234.\* Hagman, Lyle Everest. Feeding habits and related activities of the two elm scolytids.
- 235.\* Johannesson, Bjorn. The effect of soil volume on plant growth.
- 236. Logan, Stanley Harold. The literature of stream improvement work and suggestions for increasing the carrying capacity of Six-Mile Creek.
- 237. Lugo-Lopez, Miguel A. A study of the agriculture of Puerto Rico with special emphasis on soil erosion.

1946

- 238.\* Hopson, Ruth Edwinna. The study of a valley. The McKenzie River region of Oregon, with special reference to the educational significance of its natural history.
- 239. Robas, John Stoddard. A method for determining the effect of stream-improved devices upon the composition of stream bottom materials.

\* Doctoral dissertation.

## 1947

- 240.\* Foster, Dwight Livingstone. Hardwood tree growth on three soil types in central New York.
- 241.\* Plath, Clarence Vinton. An analysis of the economic land classification in Northern Livingston County, New York and a proposed method for future classification.
- 242.\* Turner, David Binnie. Professional opportunities in the fish and wildlife field.
- 243.\* Westfall, Minter Jackson, Jr. A preliminary biological survey of a central New York woodlot with special reference to its use to naturalists and in the training of naturalists.

## 1948

- 244.\* Bump, Nelson Gardiner. Wildlife habitat changes on the Connecticut Hill game management area over a twenty-year period and their effect on certain species of wildlife.
245. Chen, Chih. Soil and water conservation in the loess plateau of north-west China.
- 246.\* Jameson, Everett William, Jr. Some factors influencing the local distribution of and abundance of woodland small mammals in central New York.
- 247.\* Stone, Earl Lewis, Jr. The relation of mycorrhizae to the phosphorus nutrition of Monterey pine.

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- 248.\* Clark, Wilson Farnsworth. National parks survey. The interpretive programs of the national parks; their development, present status, and reception by the public.
- 249.\* Houck, Warren Jacob, Jr. A study of conservation education on the wildlife refuges of the United States. A report and recommendations.
- 250.\* James, Pauline Ina. The role of radio in conservation education.
- 251.\* Nelson, Arthur Hansen. A study of conservation education in the junior colleges of the United States.
252. Pistilli, August Donald. The design and construction of the small earth dam.
- 253.\* Ross, Helen Beaumont. A study of conservation education in the elementary schools of the United States.
- 254.\* Warner, Claude Kent. Conservation and science education in teacher training institutions.
- 255.\* Will, Emery Lewis. A study of conservation education in the secondary schools of the United States.

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- 256.\* Owen, Oliver Sylvanus. The bird community of an elm-maple-ash swamp in central New York.
- 257.\* Roecker, Robert Maar. The biology of the northern gray squirrel *Sciurus carolinensis leucotis* (Gapper) in central New York.
- 258.\* Yerger, Ralph William. The biology of the chipmunk *Tamias striatus lysteri* in central New York, with special reference to home range and territoriality.

\* Doctoral dissertation.

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- 259.\* Eckert, Theodore Elwin. A survey of conservation education in the public schools and teachers colleges of New York State, with recommendations for the development of an adequate state program.
260. McKeon, Warren Howard. A study of the effect of deer browsing on reproductive timber growth in the Arnot Forest area.
- 261.\* Patrie, Lawrence Augustus. Physics in conservation; an analysis of the physics content of certain representative textbooks in soil and wild-life conservation with recommendations for curricula of teacher training institutions and of general education.
262. Smith, Lawrence Stanley. A game survey of the Arnot Forest with emphasis on grouse and deer.

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263. Wallace, J. H. Comparative studies of the leaf-sap properties of three evergreens in relation to cold resistance.

## 1935

264. Reed, John Frederick. Relation of the leaf structure of mesophytic forest trees to certain environmental factors.
265. Scott, John Dayton. Factors affecting the storage and germination of seeds of *Viburnum prunifolium*.

## 1937

266. Brown, James Wilson. The effect of temperature on the respiration of acorns.
- 267.\* Schopmeyer, Clifford Scharff. The effect of soil moisture on the transpiration and bound water content of loblolly pine and short leaf pine with reference to drought resistance.

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- 268.\* Brown, James Wilson. Respiration of acorns as related to temperature and after-ripening.
269. Toole, Eben Richard. Relation of incidence of needle disease in loblolly pine plantations to certain physical properties of the soil.

## 1939

270. Bethel, James Samuel. A study of the effect of site, dominance, and position within the tree on the length of wood fibers in loblolly pine, *Pinus taeda* L.
271. Chisman, Henry Harmon. The allocation of ground area to tree size in the many-aged mixed stands of the Piedmont Plateau.
272. Haines, Harry Caum. Integrated utilization of a forest tract in southeastern Georgia.
273. Merrick, Gordon Danforth. Revegetation of deteriorated range land in northern Arizona.

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274. Owens, William Robert, Jr. Five years' growth of young loblolly pine in thinned and unthinned permanent sample plots in the Duke Forest.
275. Riley, Madison Monroe. The efficiency of sampling forest reproduction.
276. Rosendahl, Russell Otto. The effect of varied fertilizer treatment on loblolly pine seedlings in Chapel Hill nursery.
- 277.\* Wang, Yen-chieh. Studies of interactions of certain site factors and young loblolly pine *Pinus taeda* L. plantations.
278. Wellwood, Robert William. Trend towards normality of stocking for second-growth loblolly pine stands.
279. Wright, Thomas George. Forest taxation in Durham County, North Carolina.

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280. Adman, Andrew George. Some sampling designs suitable for the construction of volume, yield, and taper tables of catalpa plantations in the Central States forest region.
281. Adsit, Francis Wayne. The financial aspects of various forms of utilization in the management of southern pine in the Duke Forest.
282. Andrews, Leslie Kearns. Some studies in soil treatment at the Hoffman Forest nursery.
283. Beasley, William Lee, Jr. Alternative plans of sustained yield management for loblolly pine and hardwoods in the Duke Forest.
284. Beck, Clifford William. Forestry credit: A study of existing conditions and needs, with special reference to the Piedmont region of North Carolina.
285. Boggess, William Randolph. Effect of slope on soil variation in abandoned farm lands of the Norris Forest in Tennessee.
286. Carlton, John Buford. Water infiltration in four Piedmont forest soils.
287. Crumpacker, William Johnson. Wood use in tobacco hogsheads.
288. Hermelink, Herman Milton. A study of alternative plans for regulation of pine and hardwood stands in the Duke Forest.
289. Jones, William Curry, Jr. The development of a mill-tally log rule and its application.
290. Knorr, Philip Noel. An analysis of income from various products as influencing management of pine stands in the Duke Forest.
291. Lynch, Donald Walton. Influence of nursery fungicide-fertilizer treatments on first-year growth and survival in a southern pine plantation.
292. McWilliams, John Scott. An investigation of alternative management practices for the Crossett Experimental Forest.
293. Massey, Calvin LeRoy. The Pandora moth *Coloradia pandora* Blake, a defoliator of lodgepole pine in Colorado.
294. Miller, Ira Malcolm. Determination of optimum drying schedules for one inch and two inch southern yellow pine, yellow poplar, and southern red oak lumber in a single compartment steam jet kiln.
295. Schoites, Wayne Henry. The concentration of forest tree roots in the surface zone of some Piedmont soils.
296. Smith, Robert Lewis. A study of management problems on a part of the Duke Forest.
297. Steirly, Charles Cornell. The application of the principles of forest regulation to an actual tract in the Duke Forest.
- 298.\* Toole, Eben Richard. Mimosa wilt caused by *Fusarium perniciosum* Hepting.

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299. Applequist, Martin Benjamin. Stand composition of upland hardwood forests as related to soil type in the Duke Forest.
300. Bew, James William. The strength of urea-formaldehyde glue lines as affected by the addition of blood albumin.
301. Brabec, Joe M. Production and marketing of poles and piling for preservative treatment from central North Carolina.
302. Bronson, Arthur Harold. The Nantucket pine tip moth *Rhyacionia frustrana* (Comst.) and its occurrence on the Duke Forest.
303. Davis, Richard Edwards. Natural reproduction of shortleaf pine following a seed-tree cutting in the Duke Forest.
304. Dunn, Willard Bruce. An analysis of lumber marketing in North Carolina by wholesalers.
305. Ernst, William. An analysis of motor truck transportation of lumber to northern consuming markets from central North Carolina.
306. Fillas, Theodore James. The marketing and utilization of eastern red cedar in North Carolina.
307. Gaiser, Richard Nicholson. Forest types of Durham County, North Carolina.
308. Gira, Paul Ambrose. Determination of operating schedules for preservative treatment of air seasoned southern pine specimens in an experimental treating cylinder.
309. Guerrant, William Hepburne. Alternative methods of sustained yield management as applied to compartments 63 and 64, Durham division, Duke Forest.
310. Hagenstein, William David. An investigation of costs and efficiency of typical logging operations on the eastern Piedmont of North Carolina.
311. Heller, Robert Chester. The application of forest regulatory methods to the Great Falls division of the Duke Power Company lands.
312. Kozlowski, Theodore Thomas. The transpiration rates of some forest tree species during the dormant season.
313. McClintick, Keith Blaine. A sample cruise of the timber volume in Durham County, North Carolina.
314. Morgan, Kenneth James. The relation of certain physical properties of four Piedmont soils to their erosivity.
315. Peterson, William Bentz. The effect of partial cutting upon the growth of western white pine.

## 1942

316. Baldwin, Alan Thorrestруп. Air drying green oak wood after treatment with crystal urea.
317. Bigger, William Parker. Effectiveness of certain moisture-repellents on wood.
318. Hahn, Vernon Walter. The effect of soil and air temperatures on the resumption of growth by tree seedlings in the spring.
319. Minor, Charles Oscar. Logging waste resulting from poor felling and bucking practices in the Piedmont region of North Carolina.
320. Moberg, Theodore Russell. Tenure and use of privately owned farms and forests in Durham County, North Carolina.
321. Reid, David Gene. A study of the penetration of a preservative in tabanuco *Dacryodes excelsa* Vahl as affected by preliminary boiling treatments in organic solvents.

## 1943

- 322.\* Buell, Jesse Howard. The prediction of growth of uneven-aged timber stands on the basis of diameter distributions.
323. Deckert, Russell Coulter. Comparative costs of producing pulpwood from southern pines.
324. Haliburton, William. Some factors in the environmental resistance of *Ips* DeGeer.
- 325.\* Harper, Verne Lester. Effects of fire on gum yield of long-leaf and slash pines.
326. Hostetter, Robert Dale. The profitability of corn, cotton, loblolly pine, and shortleaf pine when grown on eleven Durham County soils.
- 327.\* Massey, Calvin LeRoy. The Scolytoidea of North Carolina.
328. Rudolph, Victor John. Soil areas of Durham County, North Carolina.
- 329.\* Wellwood, Robert William. The physical-mechanical properties of certain West Indian timbers.

## 1944

330. Berry, Frederick Hamer. Results of planting black locust *Robinia pseudoacacia* L. in the Duke Forest with particular reference to damage caused by the locust borer *Cyllene robiniae* (Forst.).
331. Matte, Lorenzo. Pulpwood volume tables for southeastern pines.
332. Olson, Earl F. An analysis of lumber production from short hardwood logs.

## 1946

333. Anderson, George A. An experimental study of the effects of strip cuttings and cleanings on loblolly pine reproduction in the Duke Forest.
- 334.\* Barnes, George Hector. Development of mixed even-aged stands of Douglas fir and western hemlock.
335. Ferrell, William Kreiter. The decomposition of forest tree leaves under inoculation with micro-organisms from various humus types.
336. Goebel, Norbert Bernard. Proposed plan for the sustained yield regulation of the timber resources in the New Hope Creek division, Duke Forest.
- 337.\* Matte, Lorenzo. The taper of coniferous species with special reference to loblolly pine.
338. Plowden, John Gabriel. Portable sawmill operation in Piedmont North Carolina and Virginia.
339. Somborg, Seymour I. Alternative plans of sustained yield management for compartments 10-21, Durham division Duke Forest.
340. Stoehr, Henry Arthur. Estimation of site index for pine in the lower Piedmont Plateau on the basis of certain soil characteristics.
341. Watkins, Virgil G. An analysis of natural reproduction under a two-cut shelterwood system in a shortleaf pine-oak stand in the Duke Forest.
342. Young, Harold Edle. The development of an empirical graded log rule and its application.

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343. Avedision, Harry. The effect of urea seasoning on the penetration of creosote into southern pine lumber.

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- 344.\* Barney, Charles Wesley. A study of some factors affecting root growth of loblolly pine *Pinus taeda* L.
- 345.\* Baskervill, William Nelson. Felling and bucking with the Disston chain saw.
- 346.\* Bethel, James Samuel. The influence of stand density upon the quality of wood produced in young loblolly pine stands.
347. Byers, Archie McAllister. Land tenure and forest taxation in British Columbia.
348. Carmean, Willard Handy. The effects of clear-cutting in patches on the reproduction of old field loblolly pine in the Duke Forest.
349. Conrad, Joseph Locke. White oak stave production during 1946 in Orange County, North Carolina.
350. Davis, Johnie Edward. Study of white oak-red oak-black oak stand in the Duke Forest after a partial cutting.
351. DeLong, Thomas Stover. Logging railroads and their history in the coastal plain of North Carolina.
352. Diftler, Nathan. The invasion of hardwoods in pine stands as related to soil texture on the upland soil types of the lower Piedmont Plateau region of Durham County and its adjacent area.
353. Etheridge, James Neal. Alternate plans of management for compartments 15 and 16, New Hope Creek division, Duke Forest.
354. Evans, Augustus Elbert. Opportunities for marketing cross-ties in Durham County, North Carolina.
355. Evans, Robert Rush. An investigation of the cost of producing southern pine lumber with a small stationary sawmill in Durham County, North Carolina.
356. Frierson, Manton Rodgers. An analysis of lumber consumption in the United States.
357. Gandy, Joe Allen. The adhesive characteristics of resin treated paints on southern yellow pine.
358. Goggans, James Floyd. Proposed plan for the regulation of timber cutting in compartments 30, 51-54, 61, and 65, Durham division, Duke Forest.
359. Goodwin, Otho Creasy. Comparative costs of producing pine pulp-wood with a chain saw and with a crosscut saw in the Piedmont region of North Carolina.
360. Hargrove, John Zeb. Economic utilization of a Georgia coastal plain forest.
361. Hobbs, James Ewell. A study of the relationship between soil texture and the establishment of pine reproduction, as affecting silvicultural practices on upland Piedmont soils in Durham County and vicinity in North Carolina.
362. Holley, David Pitts. The value of pine thinnings from farm woodlands in the Piedmont region of North Carolina.
363. Huffman, Jacob Brainard. Method for estimating veneer footage in logs.
364. Jones, Edward Eugene. Cost analysis of a mechanized pulpwood operation in eastern Virginia.
365. Kennek, James Francis. Effectiveness of a diffusion method for impregnating fence posts with a wood preserving compound.
366. Labyak, Leo Francis. Alternative plans of management for compartments 15 and 16, New Hope Creek division, Duke Forest.

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367. Leysath, Elwin Frederick. An investigation of the possibilities of sustained yield management on a Coastal Plain forest.
368. McGough, Robert Bennett. A quantitative analysis of the weight of the A<sub>0</sub> horizon of loblolly pine and white oak-black oak-red oak stands of the Duke Forest and vicinity.
369. McIntosh, Frank Wesley. Properties of mockernut hickory wood from the central Piedmont Plateau.
370. Markell, Manley Lee. Proposed plan of regulation for timber cutting in compartments 50, 55-60, 63 and 64 Durham division, Duke Forest.
371. Martin, James Dwight. Probable capital gains from typical forest properties, and value of immature loblolly pine stands in the Coastal Plain of North Carolina and Virginia.
372. Metz, Louis John. Site indices of yellow poplar *Liriodendron tulipifera* L. and red gum *Liquidambar styraciflua* L. on alluvial soils in the vicinity of Durham, N.C.
373. Mills, James Arthur. Properties of southern shagbark hickory wood in the central Piedmont region.
374. Ralston, Charles William. A study of soil characteristics associated with site index of loblolly pine on alluvial soils near Durham, North Carolina.
375. Ramey, David Scott. Properties of banak *Virola merendonii* Pittier.
376. Reid, William Henry. Stability of silicone treated wood.
377. Sharp, John Buckner. Moisture penetration and retention under natural conditions in certain soils in the Duke Forest.
378. Sizemore, William Roy. An analysis of sampling error in the Autauga County, Alabama forest resources survey.
379. Smedberg, William Waldemar. Mechanization of pulpwood producing operations in the south.
380. Smith, Richard Chandler. Some factors affecting pine stumpage prices in the vicinity of Durham, North Carolina.
381. Sullivan, Edward Thomas. The 1945-46 forest resource appraisals of the American Forestry Association and of the Forest Service, and differences between their data.
382. Thurner, John Thomas. The effect of the quality and quantity of pulpwood upon the quality and quantity of pulpwood chips.
383. Troxell, Harry Emerson. Stumpage and log price trends in the United States.
384. Williams, John Francis. The utilization of sawmill slabs for fuel wood.
385. Worley, David Perry. Some problems of marketing farm timber and their possible solution through cooperative action.

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386. Anderson, Shivers Luther, Jr. A study of the effectiveness of some wood preserving processes with certain Cuban woods.
387. Byrd, John William. Moisture penetration and water movement in certain soils of the Duke Forest.
388. Callahan, John Conrad. Natural reproduction from a three cut shelterwood system in a white oak-post oak stand in the Duke Forest.
389. Cox, Gene Spracher. The influence of soil fertility on the growth of certain forest tree seedlings as affected by soil moisture and light intensity.
390. Dedeaux, Randle Juan. Profitability of naval stores-pole operations in two second growth long-leaf pine stands in southeastern Mississippi.



391. Drummheller, Philip McCain. Proposed plan for the regulation of timber cutting in compartments 66 to 82, Durham division, Duke Forest.
392. Estes, Guy. Results of thinning from below and by the chosen tree method in the Seward Forest.
393. Frazier, John Rhett. Pulpwood marketing procedures in South Carolina.
- 394.\* Gaiser, Richard Nicholson. The relation between soil characteristics and the site index of loblolly pine in the coastal plain region of Virginia and the Carolinas.
395. Hitchcock, Harry Clay, Jr. An analysis of sampling error in the Elmore County, Alabama, forest resources survey.
396. Kiefer, George Croney, Jr. Defects caused by insects in hickory of the North Carolina Piedmont.
397. King, Woodrow Wilson. Forest utilization potentialities on the Asheville municipal watershed under sustained yield management.
398. LeBold, William Ray. Silvicultural aspects of pine-hardwood stands in the coastal plain of southeast Georgia, and their possible conversion to pure pine.
399. Lightsey, William Fred. A comparison of values of various utilizations of hardwood trees in north central North Carolina.
400. Livingston, Knox Warill. A comparison of tree site index of young loblolly pine plantations with site index estimated from the soil.
401. Lovett, Jack McSpadden. A study of the development of Asiatic chestnuts in the Duke Forest.
402. Martinelli, Mario, Jr. A study of the factors contributing to the value of pine stumpage in the vicinity of Durham, North Carolina.
403. Miller, Jesse Edward. Ownership and management of the commercial forests of the United States.
404. Miller, William Flynn. The suitability of certain resin impregnated papers for crossbanding.
405. Perry, Jesse Parker, Jr. A cost analysis of preserving fence posts by the open tank method.
406. Pomeroy, Kenneth Brownridge. The germination and initial establishment of loblolly pine under various surface soil conditions.
407. Pond, Robert Barlett. Sawdust volume in the production of lumber.
408. Reed, Arthur Van. The effect of penetrol on the durability of paint coats on southern yellow pine.
409. Reigner, Irvin Cope. Proposed plan for sustained yield management of the Hillsboro division, Duke Forest.
410. Roberts, Frances Lenora. A study of the absorbing surfaces of the roots of loblolly pine.
- 411.\* Robertson, James Campbell Hay. Potentialities for economic management of the forests of Durham County, North Carolina.
- 412.\* Sakornbut, Songe Sook. Differentiation of woods of southern pines by chemical means.
413. Sidney, Cedric Thomas. Acorn weevils of the North Carolina Piedmont: their biology and method of sampling infestation.
414. Vousden, John Alfred. A comparison of the volumes of pulpwood and sawlogs contained in pine trees in southeast Georgia.
415. West, William Jennings. Age and volume of pine trees cut for pulpwood in the Southeast.

\* Doctoral dissertation.

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416. Alvis, Richard J. A study of soil-site influences on the occurrence of yellow poplar reproduction following cutting in Durham and surrounding counties of North Carolina.
417. Bliss, Verne F. A study of the effective penetration of creosote oil in the wood of slash pine from south Florida.
418. Brigham, Lyman H. The log gang saw and its development in southeastern United States.
419. Burns, Joe G. Comparison of lumber yield with saws cutting one-quarter and one-eighth inch kerfs.
420. Butcher, Gene L. Natural reproduction following the selection method of cutting in a shortleaf pine-oak stand in the Duke Forest.
421. Carey, Charles M. Strength and gluing characteristics of oil-seasoned yellow poplar lumber.
422. Cook, Richard C. The inspection of shortleaf pine poles and a study of the possible successful treatment of rejected poles.
423. Corthell, Richard Eldon. A comparison of tree site index with site index estimated from the soil for young shortleaf pine stands.
424. Deetlefs, Philippus Petrus du Toit. A study of spacing in coniferous plantations, with special reference to pine.
425. Dwyer, Walter W., Jr. Factors related to the incidence of *Fomes annosus* on eastern red cedar in the Duke Forest.
426. East, John William. Some pertinent properties of *Virola Virola boschnyi* Warb.
- 427.\* Ferrell, William Kreiter. The effect of environmental conditions on the survival and growth of forest tree seedlings under field conditions.
428. Fitzgerald, Odie LeRoy. The effectiveness of various preservative treatments on certain Cuban woods.
429. Haigh, William S. Comparative appraised values of major products from southern pine.
430. Haynes, Winifred Newman. An analysis of pulpwood production costs in southeast Georgia.
- 431.\* Hofmann, Julian George. The effect of certain soil characteristics on the height growth and site index of pond pine in the coastal plain of the Carolinas, Georgia and Florida.
432. Holman, Jack. The invasion of hardwoods in pine stands as related to soil characteristics of the lower Piedmont Plateau of North Carolina.
433. Hortin, Ross. The relation between soil characteristics, fire, grazing, stand density, and the hardwood understory of loblolly pine in the coastal plain region of Virginia and the Carolinas.
434. Hunt, Francis Milton. Effect of soil aeration on growth of pine seedlings.
435. Johnston, James G. The manufacture of excelsior in North Carolina.
436. Kelly, Jack Edwin. A survey of felling and bucking tools used in the South.
437. Kemp, Arne K. Some pertinent properties of Santa Maria wood *Calophyllum brasiliense* Camb.
438. Koenig, Walter. Plan of management for Erwin Cotton Mills tract, Duke Forest.
439. McClay, Thomas Alan. Analysis of some factors affecting stumpage value of farm timber.

\* Doctoral dissertation.

440. Marlin, Clifton Boyd. A study of portable sawmill operations in the Piedmont region of North Carolina and the possibility of their use by a farmers' cooperative.
- 441.\* Marra, George G. A study of adhesive action of a urea-formaldehyde resin on certain hardwoods.
442. Olson, David Frederick, Jr. Relation of certain soil and site characteristics to understory composition in pond pine stands of the southeastern Coastal Plain.
443. Ordell, Arthur William, Jr. A comparison of growth and yields of some young loblolly pine and shortleaf pine plantations in the Duke Forest.
444. Perkins, Eugene George. Relation of certain soil and site characteristics to understory composition in slash pine stands of the southeastern plain.
445. Rogers, John Groe. A comparison of tree site index with site index estimated from the soil for young loblolly pine stands.
446. Slade, Russell S. The relation between shrinkage and imbibitional water value of certain Piedmont soils.
447. Smith, John David. Some pertinent properties of cedro macho *Carapa guianensis* Aubl.
448. Sutton, Richard F. A preliminary management plan for a small tract of timber in Alleghany County, Virginia.
449. Wagoner, Eddie R. A forestry public relations program for Kentucky.
450. Warner, John R. A comparative analysis of the profitability of corn, cotton, loblolly pine, and shortleaf pine when grown on eleven Durham County soils.
451. Waters, William E. Aerial control of the spruce budworm, *Archips fumiferana* (Clem.): analysis of experimental data and a method of sampling populations.
452. Wenger, Karl F. The mechanical effect of fusiform rust cankers on stems of loblolly pine.
453. Worsham, Jesse Norman. Financial operations of cooperative marketing of forest products by the Farmers Mutual Inc. in the vicinity of Durham, North Carolina.
454. Zak, Bratislav. Importance of resin in the grafting of shortleaf pine.

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455. Avery, Thomas Eugene. A time and cost study of felling, limbing and topping pine trees for pulpwood in the Duke Forest.
456. Bormann, Fred H. The statistical efficiency of plot size and slope in forest ecology.
- 457.\* Boyce, John S. Needle browning of southern pines, with special reference to the fungus *Lophodermium pinastri* (Schröd.) Chev.
458. Cairns, Frank Elmer, Jr. A study of crown diameter relationships and aerial photo volume tables, with special reference to loblolly pine.
459. Campbell, Craig Carol. The effectiveness of polysiloxane resin in dimensional stabilization of wood.
460. Collicott, Lloyd Vincent. Some properties of hardpan soils occurring in the southeastern Coastal Plain.
461. Coté, Wilfred Arthur, Jr. Some properties of hickory compreg.
462. Cyphers, Harry Wolfe, Jr. Pertinent physical properties of slash pine wood from the Florida Everglades.

\* Doctoral dissertation.

463. Davison, Alexander Thayer. Root aphids of the genus *Prociphilus* on pines in the Duke Forest.
464. Doolittle Warren Truman. Early effects of pruning on the height and diameter growth of sycamore.
465. Evans, Gerald Wilbert. An investigation of the time and costs involved in hauling pulpwood with a one and one-half ton truck.
466. Gabriel, William John. The effect of some treatments on the establishment of loblolly pine in the Duke Forest.
467. Gill, Robert C. The characterization and removal of the red coloring matter from the heartwood of the American beech.
468. Gilmore, Alvin Ray. The relationship of the surface soil to site index of longleaf pine in the Atlantic coastal plain.
469. Hallberg, Russell Kurt. The marketing of pine lumber in North Carolina and Virginia.
470. Hawkins, William Theron. A comparison of the present agricultural value to the potential forest value of a farm in Durham County, North Carolina.
471. Hosner, John Frank. Some basic relations of climate, geology, and natural vegetation to soils in Montana, Idaho and Washington.
472. Johnson, Robert Bruce. A comparative evaluation of four commercial adhesives based on the joint strength of hard-maple shear blocks.
473. Jones, Edward Earl. A time and cost study for bucking pine pulpwood with a one man power chain saw.
474. Kinghorn, James Myles. Mortality of timber defoliated by the western hemlock looper *Lambdina fiscellaria* var. *lugubrosa* (Hlst.) on Vancouver Island, British Columbia.
475. Knight, Fred Barrows. Some factors affecting the incidence of weevil damage in white pine stands in New England.
476. Knudsen, Lyle L. The interrelation of some soil properties of Coastal Plain soils.
- 477.\* Knudsen, Lyle L. The relation between soil properties and growth of slash pine in the Coastal Plain region of southeastern United States.
478. Lowery, Daniel Perry. The effect of moisture content of Sitka spruce on the shear strength of polyvinyl acetate bonds.
479. Marlow, Ernest Grant. Application of a record keeping and cost accounting system to a portion of the Duke Forest.
- 480.\* Metz, Louis John. Relationship between soil properties and the growth of loblolly pine in the southeastern Coastal Plain.
481. Newman, Walker Preston. Initial application of the basal area control method of management to an unevenaged white oak-red oak-post oak stand in the Duke Forest.
- 482.\* Parker, Johnson. Germination and establishment of eastern red cedar and some ecological and physiological aspects of its local occurrence in the Duke Forest.
483. Pfeiffer, Jack Russell. Pertinent properties of three Floridian grown tropical woods.
484. Porter, John Allamong. Effect of thinning on growth and development of old-field loblolly pine.
485. Powers, Harry Robert, Jr. Cross infectability of the brownspot fungus.

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- 486.\* Rudolph, Victor John. Timber production and cooperative marketing of forest products in Durham, Chatham, and Orange Counties, North Carolina.
487. Schramm, Robert J., Jr. Effects of aeration on root anatomy.
488. Smith, Bernard Fletcher. The effects of pruning on the growth and development of thinned old-field loblolly pine in the Duke Forest.
489. Smith, David V. The sample tree versus the sample plot in the double-sampling timber cruise.
- 490.\* Smith, Richard Chandler. A method of valuation for the purchaser of forest land in the Southeast for growing pulpwood.
491. Smithey, John Willie. Treatment of sandpine with creosote by standard processes.
492. Sprague, Edward Dubois. The effect of differential pressure on the strength of a urea-formaldehyde glue bond.
493. Thomasson, Gerald Ste. Gemme. Major forestry uses of aerial photographs in the United States.
494. Thompson, Lawrence Nathaniel, Jr. An analysis of team skidding costs in removing pine pulpwood in thinnings in North Carolina.
495. Thorne, Harry Wallace. A study of growth and condition of a loblolly pine stand in the Duke Forest with recommendations for its management.
496. Turpin, David Howard. Pulpwood price trends in the Southeast.
497. Wright, Kenneth Harold. The effect of precipitation and its seasonal distribution on ring-growth of Douglas fir attacked by *Dendroctonus pseudotsugae* Hopk. in western Oregon.
- 498.\* Wu, Chung-lwen. Forest regions in China with special reference to the natural distribution of pines.
499. Wyckoff, Peter Judson. A record and cost accounting system for a small area in the Duke Forest.
500. Zirkle, John Jacob, Jr. Analysis of some factors affecting stumpage value of farm timber in Monroe County, Georgia.

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501. Allan, Kenneth Matthews. Stand density in relation to growth and development of old-field loblolly pine in the Duke Forest.
502. Applefield, Milton. A time study and yield analysis of gang sawing southern pine logs.
503. Barnes, Robert Lloyd. The relation between soil properties and the growth and yield of sand pine.
504. Bell, John Frederick. A survey of forest taxation in North Carolina.
505. Bennett, Frank Antrelle. A topwood volume table for slash and long-leaf pine of the middle coastal plain of Georgia.
506. Bourdeau, Philippe F. Testing some of the ecological sampling techniques in a completely enumerated oak-hickory stand.
507. Breadon, Robert Edwin. Study of yellow poplar reproduction in a mixed hardwood stand of the Duke Forest with special reference to seed supply and seed-bed conditions.
508. Byers, Donald V. The use of mineral spirits for the control of weeds in coniferous nurseries.
509. Cantelou, Lamar Black. Comparative resistance of certain Cuban woods to marine borers.

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510. Curle, Lawrence Duke. The effect of waterlogging of several Piedmont soils on the growth of red cedar seedlings.
- 511.\* Deetlefs, Philippus Petrus du Toit. A study of the relationships between stand density, crown size, and basal area growth in loblolly pine stands in the lower Piedmont of North Carolina.
512. Diamond, Sidney. A rapid index of soil permeability for North Carolina soils.
513. Dixon, Arthur Curtis. The effect of microtopography on the survival of spruce and fir seedlings in New Brunswick.
514. Ference, George Melville. The stumpage value of a mature loblolly pine stand in the Durham division of Duke Forest based on the santee tree grading system.
515. Ferguson, Edwin Roudillon. Survival and growth of longleaf pine seedlings from two geographic seed sources.
516. Follett, George Leonard. A farm woodland management plan for compartment 33 in the Durham division of Duke Forest.
517. Forsyth, Harold Frederic. Forest versus pasturage use of Piedmont land.
518. Furnival, George Mason. The effect of d.b.h., height and age on ground area required by individual slash pines in evenaged stands.
519. Gilmer, William Dryden. A cost and time study of a typical logging operation in Orange County, North Carolina.
520. Glabau, William Edward. Effectiveness of the osmose preservative treatment on sand pine and four Cuban woods.
521. Haislet, John Aulden. A study of forest fire damage appraisal.
522. Hawes, Raymond Burke. Time and cost analysis of a portable sawmill in the Piedmont region of North Carolina.
523. Ince, Gordon Anthony. A method of sampling pine tip moth *Rhyacionia frustrana* (Comst.) populations.
- 524.\* Labyak, Leo Francis. The effect of pruning on form and growth of loblolly pine.
525. Lamond, Leo Daniel. A time and cost study of tractor skidding pine logs to a portable sawmill in North Carolina.
526. Larrabee, Donald Ralph. An investigation of saving time and cost at a portable sawmill in North Carolina.
527. Lee, Robert Emil. The role of insects in deterioration of dead loblolly and shortleaf pines.
528. McClurkin, Douglas Charles. Volume changes in Piedmont subsoils as related to other soil properties.
529. Maple, William Robert. Relation between permeability and imbibitional water value of some North Carolina soils.
530. Massey, William Everard. A study of the manufacture of red gum *Liquidambar styraciflua* veneer for door panels at an eastern North Carolina plant.
531. May, Robert Legard. Survival and growth of planted yellow poplar on various soil types in the Duke Forest.
532. Michell, Arthur Stephen. Analysis of pulpwood harvesting techniques and costs in North Carolina.
533. Parker, James Austin. A preliminary plan of management for the Tuskent River property of Mersey Paper Co., Ltd. Liverpool, N. S., Canada.

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\* Doctoral dissertation.

534. Phelps, William Robert. The fungi associated with the stain and decay of fire-killed southern pines.
535. Phythyon, Hugh Reed. The effect of rate of loading upon the shear strength of an adhesive.
536. Pomeroy, Donald Alfred. Results of the two-cut shelterwood method in loblolly pine pulpwood-size stands in the Carolinas and Virginia.
537. Powell, Louis William. Distribution of yellow poplar seed in a cut-over oak-hickory stand in the Duke Forest.
538. Ray, Philip Lancaster. Insects attacking loblolly pine in the Piedmont region of North Carolina.
539. Schwartz, Charles Murry. A study of intermediate cuttings on farm woodlands in Durham County, North Carolina.
540. Thornton, Ernst Seeman. A time and cost study of labor on nine pulpwood operations in the Southeast.
541. Van de Linde, Frank. Management of yellow poplar for lumber and veneer in the vicinity of Durham, North Carolina.
542. Wagoner, Howard Eugene. Some factors influencing beech scale populations.
543. Whitman, Joseph Atwood. Some basic legal aspects of forest damage appraisals.
544. Whitney, Richard Boardman. A time and cost study of felling and bucking pine timber for a portable mill in North Carolina.
545. Williams, Webster Douglas. Heart rot of white oak on uplands in the Piedmont of North Carolina.
546. Wray, Clayton. Biology of *Ips calligraphus* (Germar).
547. Zahner, Robert. The influence of certain properties of organic soils on the height growth of pond pine in North Carolina.

## 1952

548. Bree, Jacobus C. Some interrelationships between moisture contents of soils and rocks contained.
549. Carlson, Alan E. The expansion and contraction of casehardened wood under various treatments.
550. Church, Thomas W. Time required to harvest pine pulpwood in the Piedmont of North Carolina.
551. Gaby, Louis I. Effect of position in pile on change in moisture content of yellow poplar lumber during air seasoning.
552. Ganley, Robert V. A proposed thinning schedule for the loblolly pine stands in the 11- to 20-year age class in compartments 34 through 42 in the Durham division of the Duke Forest.
553. Geiger, Walter Bernard. 1950 white oak acorn production: amount, viability, and post fall development, Duke Forest.
554. Godfrey, Bernard E. Proposed plan of management for a portion of the Eno division of Duke Forest.
555. Hewlett, George T. The effect on sampling error of eliminating block variation from the regression in the double-sampling timber cruise.
556. Horak, Francis J. Management aspects of converting inferior hardwood stands in loblolly pine stands in the Duke Forest.
557. Johnson, Ed. Sigurd. A study of the strength of compressed wood dowel joints.
558. Koch, Daniel Francis. The effect of temperature on the strength of polyvinyl acetate and polyvinyl butyrate glue bonds.

559. Ledford, Roy H. The relationship of soil properties and the growth of red cedar in plantations.
560. Lee, James E. A time and yield study of gang sawing pine logs and cants.
561. Lyle, Everett Samuel, Jr. The effect of bolt size on time required to load and unload pine pulpwood by hand.
562. McKee, James C. Vapor drying of some refractory hardwoods.
563. Malac, Barry. Effect of litter removal, both by raking and burning, on growth and yield of loblolly pine, on soil, and on soil fauna.
564. Parker, J. Reid. Factors affecting woodlot stumpage prices in Fairfield County, South Carolina.
565. Rhett, Robert Barnwell. A comparison of unit-packing and manual handling of lumber in a concentration yard.
566. Santoro, Jean C. A proposed cutting schedule for the mature pine stands in compartments 1 through 15 in the Durham division of Duke Forest.
567. Sliker, Alan William. Some anatomical and mechanical properties of aircraft-grade balsa wood.
568. Swensen, James Herbert. The manufacture of dogwood shuttle blanks in a North Carolina mill.
569. Walrond, Alan L. Permeability and related properties of some soils near Durham, North Carolina.
570. Ward, Edward H. Volume and value increment of mature loblolly pine stands in the Durham division of the Duke Forest.
571. Welsh, John F. The increase in value of certain farm woodlots in the Piedmont region of North Carolina, five years after thinning.
572. Winters, E. John. A pulpwood hauling time study.
573. Wood, George W., Jr. Application of growth prediction by the stand table projection method in a management plan inventory of the major forest types in the Durham division of Duke Forest.

## UNIVERSITY OF FLORIDA

### 1947

574. Brassington, Jas. J., Jr. A management plan for the Austin Cary Memorial Forest.

### 1948

575. Craft, Ernest J. A review of the naval stores industry, including results of experimental chipping, following the latest methods, on the Austin Cary Forest, University of Florida.
576. Goddard, Ray Everett. A study of the growth of southern pines and its use in determining the cut for a young forest.
577. Miller, James W., Jr. Cost of logging southern pine of various diameters as applied to a portable mill in Alachua County, Florida—year 1946.
578. Rou, Charles Michael. Determination of the accuracy of a timber survey.
579. Swinford, Kenneth R. Standard volume tables for pond cypress *Taxodium ascendens* Brongn.



## 1949

580. Goodwin, J. C., Jr. A study of cold soak-open tank preservation of southern pine fence post.
581. Herndon, Thomas G. A commercial management plan for the Austin Cary Memorial Forest.

## 1950

582. Attaway, Herbert B. Florida's forest economy.
583. Dickinson, James E. Height growth of planted pine *Pinus elliottii* Englm. as influenced by some physical properties of the soil.
584. Hitchcock, Wilber J. Forest management on pine lands in Lafayette County, Florida.
585. Lunsford, Henry C. A growth and thinning study of planted slash pine *Pinus elliottii* Englm.
586. Oliver, Wm. F. The effect of turpentine on the growth of longleaf pine, *Pinus palustris* Mill.
587. Sheppard, Miles H. The effect of turpentine on the growth of slash pine *Pinus elliottii* Englm.
588. Wheeler, Donald E. The loss in value of poles owing to turpentine.
589. Willingham, Jas. W. A comparison of ground cruising of 8,000 acres and ground cruising controlled by aerial photographs in Alachua County, Florida.

## 1951

590. Austin, Chas. F. A mill study of the variation in lumber yield produced by a portable and by a semi-portable mill in Alachua County, Florida.
591. Beal, John F. A study of the silting percentages of sandy soils of the Ocala National Forest and their effect on the regeneration of sand pine, *Pinus clausa* (Engelm.) Sang.
592. Ford, John H. An investigation of the creosote treatment of green fence post after boiling in water.
593. Garrney, Marvin. Financial aspect of naval stores production in north-east Florida, 1949-1950.
594. Jarvis, Warren. A correlation of rain fall and tree growth.
595. Lanier, Jas., III. The attitudes of landowners in Alachua County, Florida concerning sportsmen and cooperative hunting plans.
596. Post, Don. Cost analysis of milling southern pine on a portable mill in relation to diameter classes, in Alachua County, Florida, year 1951.
597. Urling, Gerard P. An anatomical study of some lesser-known woods of Florida.

## 1952

598. Becker, David. A study of factors affecting direct seeding of southern pine.
599. Moody, Forrest Bankston, Jr. The effect of preliminary steaming and other factors on the penetration and retention in southern yellow pine dimension stock of an oil soluble preservative used in the hot-and-cold bath process.
600. Moses, Phillip. Effect of chemical sprays for control of insect damage in stored pulpwood.

601. Schierbeek, E. W. The effect of 2, 4-dichlorophenoxyacetic acid and sulfuric acid on the epithelial tissue of the resin ducts of slash pine *Pinus caribaea* Morelet and longleaf pine *Pinus palustris* Mill. when used as a stimulant in naval stores production.

## UNIVERSITY OF GEORGIA

1947

602. Hargreaves, L. A., Jr. Relationship between density and basal area in natural shortleaf pine stands in the Georgia Piedmont.  
603. Morgan, Herbert Loyall, Jr. Relationship between density and basal area of natural loblolly pine stands in the Georgia Piedmont.

1948

604. Dixon, Robert Delayne. Financial aspects of artificial and natural regeneration of loblolly pine in the Piedmont section of Georgia.

1949

605. Hamilton, John Robert. The fungicidal treatment of stratified and unstratified loblolly and shortleaf pine seed to prevent damping-off.  
606. Harper, Rex Stanley. The relationship of stand density to light intensity beneath the canopy of natural stands of shortleaf pine in the Georgia Piedmont.

1950

607. Cloud, Mason C. Effect of nitrogen fertilization on the radial growth of southern pines.  
608. Darby, Sanford P. Effects of seedbed preparation on the germination and initial establishment of loblolly pine in the Piedmont forest.  
609. Driver, Charles Henry. A morphological study of the mycorrhizae on certain southern hardwood tree species of the Georgia Piedmont.  
610. Johnston, David Ware. Bird populations in relation to plant succession on the Piedmont of Georgia.  
611. Rowland, Charles Alden. Effects of bud pruning upon slash and loblolly pine trees.

1951

612. Hopkins, Milton Newton. A comparison of the population ecology of the mourning dove on the coastal plain and Piedmont of Georgia.

1952

613. Huntemann, J. Walter. Stem and crown development relationships of loblolly pine in a portion of the Georgia Piedmont.

## HARVARD UNIVERSITY

1918

614. Terry, E. I. The management of second growth white pine in central New England.

1920

615. Peirson, H. B. Control of the white pine weevil by forest management.  
616. Pierson, H. B. The life history and control of the Pales weevil *Hylobius pales*.

- 616a. Richardson, A. H. A report on some of the forest plantations of Massachusetts.  
617. Spaeth, J. N. Growth study and normal yield tables for second growth hardwood stands in central New England.

## 1921

- 617a. Allen, Arthur F. Quality in the second growth white pine of New England.  
618. Patton, R. T. Red oak and white ash: A study of growth and yield.

## 1922

619. Averill, R. W., Averill, W. B., and Stevens, W. I. A statistical forest survey of seven towns in central Massachusetts.

## 1923

620. Tarbox, E. E. Quality and growth of white pine, as influenced by density, site and associated species.

## 1924

621. Cline, A. C. and Lockard, C. R. Mixed white pine and hardwood.  
622. Foster, C. H. Inventory of the growing stock on the Harvard Forest.  
623. Reed, Paul M. Red pine in central New England.

## 1925

624. Albright, W. A. and Hosley, N. W. Studies in bole form of white pine: Relation between form point and form class.  
625. Davis, A. A. Logging costs with partial cuttings. (No degree granted. Residence requirement not completed.)  
626. Marshall, Robert. The growth of hemlock before and after release from suppression.  
627. Powell, Grant M. Cases in the release of white pine from gray birch on old fields.

## 1926

628. Altpeter, L. S. Growth and reproduction in slash on old field pine cuttings.  
629. Gabriel, Roger. Cases in silvicultural treatment.

## 1927

630. Downs, J. B. and Gutchess, C. B. The wood-using industries of Massachusetts.  
631.\* Gast, P. R. A thermoelectric radiometer for silvical research.  
632. Gottlieb, A. W. The occurrence of nitrogen in soil profiles under pine.  
633. Hall, R. C. Pitch pine on Cape Cod.  
634. Hick, R. M. The influence of land history and legislative enactments on the character and condition of the state forests in Massachusetts.  
635. Hunt, Stuart S. European larch in the northeastern United States: A study of existing plantations.  
636. Kempff, Gerhard. Study of the bole form of white ash and red oak, with special reference to natural pruning.

\* Doctoral dissertation.

## . 1928

637. Gevorkiantz, S. R. (with N. W. Hosley). Form and development of white pine stands in relation to growing space.  
637a. Johnston, James W., Jr. The fauna of soils as affected by the old field white pine-mixed hardwood succession on the Harvard Forest.  
637b. Smith, Hollis A. A study of virgin forest development.

## 1929

638. Griffith, B. G., Hartwell, E. W., and Shaw, T. E. The evolution of soils as affected by the old field white pine-mixed hardwood succession in central New England.

## 1930

639. Branch, W. C., Daley, R. K., and Lotti, Thomas. Life history of the climax forest on the Pisgah tract, Winchester, New Hampshire.  
640. Haddow, W. R. Studies of *Trametes pini*.  
641. Herr, C. S. The regrowth of hardwood sprouts resulting from repeated weedings.

## 1931

642. Averill, C. C. and Frost, L. M. Some factors underlying forest fire insurance in Massachusetts.  
643. Bauer, Eitel. The economic possibilities of forestry for wood-using industries in central New England.  
644. Scholz, H. F. The physical properties of the cove soils on the Black Rock Forest (Cornwall, N. Y.).

## 1932

645. Breckenridge, C. C. Growth and condition of the coniferous plantations on the Harvard Forest.  
646. Hyde, Gerald R. and MacKinnon, F. S. (with A. C. Cline). The cut-over old field pine lands of central New England: A study of the composition and stocking of the ensuing stands.  
647. Mitchell, H. L. Growth of Scots pine in sand cultures with varied radiation intensity and nitrogen supply.

## 1933

648. Holsoe, Torkel. Management of red oak and white ash with special reference to thinning.  
649. Steed, A. V. A preliminary study of the effect of ground cover types on white pine reproduction in group selection cutting.

## 1934

650. Cummings, W. H. Preliminary study of phosphorus, nitrogen, potassium, and moisture content of foliage of northern white pine in weeviled plantations.  
651. Curtis, J. D. A study of artificial forest pruning in white pine plantations.  
651a. Whelden, C. M., Jr. Studies in the genus *Frazinus*. A preliminary key to winter twigs for sections *Melioides* and *Brumelioides*.  
652. Ziebarth, R. K. (with N. W. Hosley). Some winter relations of the white-tailed deer to the forests in north central Massachusetts.

## 1935

653. Duffield, John W., and Kraemer, J. Hugo. Results of the uniform shelterwood method applied to white pine and hemlock mixtures.  
653a.\*Hatch, Alden B. The physical basis of mycotrophy in *Pinus*.

## 1936

- 654.\* Johnston, J. W., Jr. The macrofauna of soils as affected by certain coniferous and hardwood types on the Harvard Forest.  
655. Turberville, H. W. Winter habits of the ruffed grouse in Petersham, Massachusetts.

## 1937

656. Goodell, B. C. A study of spring flood factors as influenced by forest cover types in central New England.  
657. Gould, E. W. Occurrence of low-growing game foods in the old field white pine-mixed hardwood succession in the Harvard Forest.

## 1938

658. Gould, Virgil A. A study of the winter relationships of the snowshoe hare *Lepus americanus virginianus* Harlan to the Harvard Forest.  
659. Lutz, Russell J. and Raymond, Mace E. The farm woodlands of the town of Hardwick, Massachusetts.

## 1939

660. Hanson, E. Arnold. Reproduction systems in the pine-hardwood succession on old fields.  
661. Swain, Lewis C. The effect of frost on the establishment of white ash.  
662. Wright, Jonathan W. A study of white ash with particular reference to the habit of branching.

## 1940

663. Barraclough, Kenneth E. Cooperative marketing of farm forest products and establishment of sustained yield management within a working circle.

## 1941

664. Hurd, E. Stanley. A study of forest land ownership in the town of Petersham, Massachusetts.  
665. Rowlands, Willett. Damage to even-aged stands in Petersham, Massachusetts, by the 1938 hurricane as influenced by stand condition.

## 1942

666. Brake, Ralph W. and Howard A. Post. Natural restocking of hurricane damaged "old field" white pine areas in north central New England.  
667. Chute, Gordon L. and Ernest M. Gould, Jr. The economics of farm forestry and forest farming.  
668. Gill, C. Edward. A proposed plan of management of Tom Swamp, compartment III, Harvard Forest, Petersham, Mass.  
669. Larson, Robert W. Silvicultural management plan for compartment III, 39.8 acres, Tom Swamp block, Harvard Forest, Petersham, Mass.  
670. Yoder, Ray A. Silvicultural study of Tom Swamp III, Harvard Forest, Petersham, Mass.

\* Doctoral dissertation.

## 1948

671. Hill, Miles R. A comparative study of several sets of aerial photographs for forest photo-interpretation.  
672. Stephens, Earl P. Stand map of the Tom Swamp tract of the Harvard Forest, Petersham, Mass.

## 1949

673. Cameron, Robert C. Cases in aerial photograph interpretation.  
674. Chamberlain, Alfred R., Jr. An investigation on the uses, grades, and markets of material obtained from hardwood thinnings.  
675. Madden, Robert C. Studies of the Blake tract, Piscataquis County, Maine.  
676. Martin, William H. Sex-associated characters of dioecious species.  
677. Pope, Robert B. Tests of several types of aerial photo-cruises on a 133-acre area in central New England.  
678. Scudder, James H. A preliminary study of forest succession in central New England.  
679. Vohden, Allen J. Preliminary investigation of the utilization possibilities of hardwood thinnings.

## 1950

- 680.\* Barraclough, Solon L. Forest land ownership in New England, with special reference to forest holdings of less than five thousand acres.  
681.\* Leopold, Luna B. The erosion problem of southwestern United States.  
682.\* Torrey, John Gordon. Studies on the physiology of lateral root formation and root growth.  
683.\* Vander Wyk, Raymond Winston. The comparative morphology of the Annonaceae.

## 1951

- 684.\* Augelli, John Patsy. Geography of agriculture and settlement in interior Puerto Rico: Problems of the upper Loiza Basin.  
685.\* Bailey, Norman Sprague. The Tingidae of New England and their biology.  
686.\* Goodlett, John Campbell. The vegetation of Potter County, Pa.  
687.\* Gould, Ernest Morton, Jr. Economic problems of managing small woodland holdings in New England.  
688.\* Greenidge, Kenneth Norman Haynes. Die-back: a disease of yellow birch *Betula lutea* Michx. in Eastern Canada.  
689.\* Sigafoos, Robert Sumner. Some interrelationships between living vegetation and geomorphic processes.  
690.\* Traverse, Alfred Freeman, Jr. The pollen and spores of the Brandon lignite, a coal in Vermont of lower Tertiary age.

## 1952

- 691.\* Drury, William Holland, Jr. Cyclic development of bog flats in interior Alaska.  
692.\* Gowda, Maragowdanahalli Hombegowda Mari. The genus *Pittosporum* in the Sino-Indian region.  
693.\* Marsden, David Henry. Studies of decayed, preservative-treated wood and biological studies of *Hormodendrum resinæ* Lindau, a common inhabitant of creosoted and coal tar-treated wood.

\* Doctoral dissertation.

- 694.\* Parmenter, William Kean. The Congo and its critics, 1880-1913—touches on the exploitation of wild rubber.
- 695.\* Perry, Thomas Oliver. Hereditary variation in growth patterns of poplar trees as controlled by day length.
- 696.\* Sequeira Jenkins, Luis. Studies on *Omphalia fluvialis*, the agent of the American leaf spot disease of coffee.

## UNIVERSITY OF IDAHO

## 1911

697. Lundstrum, Fritz. Some results obtained on rate of seasoning of bridge timbers of yellow pine *Pinus ponderosa* and western larch *Larix occidentalis*.

## 1915

698. Carlson, O. F. Wood preservation and by-products in America.

## 1927

699. Sowder, Arthur Merrill. A preliminary study of the toxicity of water soluble extractives and the relative durability of water treated wood-flour of western red cedar *Thuja plicata*.

## 1928

700. Anderson, Bernard Andrew. A preliminary study of the toxicity of water-soluble extractives and of certain volatile substances of western yellow pine *Pinus ponderosa* to *Lensites sepiaria* Fries.
701. Hoffman, Henry C. The use of United States Forest Service lumber production costs to indicate the profit trend in a typical Inland Empire logging operation.
702. Nettleton, Harry Ira. Effect of release by logging on growth and form of residual white pine in north Idaho.

## 1929

703. Genaux, Charles M. A study of sap stain fungi in western yellow pine and western white pine.
704. Kemp, Paul Daniel. A preliminary study of the effect of kiln drying on the decay resistance of *Pinus monticola*.
705. Saling, Wallace Marion. The effect of blue stain on the penetration and absorption of preservatives.
706. Sharp, Andrew G. A study of some of the effects of kiln drying on the durability of western yellow pine *Pinus ponderosa*.
707. Wiesehuegel, Erwin George. The diagnostic characters of the woods of the genus *Abies*.

## 1930

708. Garin, George Illichevsky. A study of the cause of kiln brown stain in Idaho white pine *Pinus monticola* Don and western yellow pine *Pinus ponderosa* Lawson.
709. Harris, Thomas H. A preliminary study of the commercial use of wood-rotting fungi in the reduction of wood to cellulose.

\* Doctoral dissertation.

## 1931

710. Bickford, Charles Allen. The oleoresin of alpine fir *Abies lasiocarpa* Nutt, its properties, constituents, and possible uses.  
711. Plunguian, Mark. Fireproofing of fiber boards. Contains also an Addendum, Contents: Part I. Studies on adsorption of zinc borate by cellulose. Part II. Preparation and analysis of a few chlorine derivatives of lignin.

## 1932

712. Hepher, William Stanley. Action of ammonium sulphite on lowland white fir wood *Abies grandis*.  
713. Makara, Frank Russell. A comparative study of ethylene glycol lignin with the residual lignin in lowland white fir *Abies grandis* and the investigation of possible commercial lignin condensation products.  
714. Miller, Douglas Reed. A study of the germination of *Ribes* seeds.  
715. Stouffer, David James. A study of the fungi found growing on white-pine blister rust lesions.

## 1933

716. Moss, Virgil Daniel. A study of federal and state plant quarantines with discussion on the diseases and insect pests concerned.  
717. Pierson Royale King. Studies on the function of the pycniospore of the white pine blister rust fungus.

## 1934

718. Clarke, Stanley C. The seasonal variation and distribution of arabo-galactan in western larch wood *Larix occidentalis* Nuttall.  
719. McNair, John Joy. The preparation and properties of lignin esters.

## 1936

720. Larson, Leslie Lundgren. Plasticization of wood through lignin reaction products.  
721. McCarthy, Joseph LePage. The coalescence of wood particles by the chemical and physical alteration of their polysaccharide constituents.  
722. Worley, Clair Lynnette. The seasonal fluctuations in the amount of carbohydrates in *Pinus ponderosa* and *Pseudotsuga taxifolia* needles.

## 1937

723. Coppick, Sydney. The properties of molded gelatinized wood.  
724. Nordblom, George Frederick. The preparation and properties of sulphur-lignin plastics.  
725. Opie, Robert Stanley. The relationship of *Cronartium ribicola* to *Pinus monticola*. A preliminary investigation into the relationship between distal and proximal extent of the mycelium in the bark, and the limits of surface discoloration.  
726. Thrupp, Adrian Craroft. The influence of soil pH on the germination of western coniferous tree seed.  
727. Woodruff, Samuel Amos. A study of the analysis of arabogalactan in *Larix occidentalis* Nuttall and its seasonal variations.

## 1938

728. McKeever, Donald Gibson. The effect of various methods of treatment on the germination of seeds of some plants valuable for game and erosion purposes.



729. Mennell, Raymond DeLoss. A study of the effects of heat and pressure on the coalescence of wood.
730. Sedoff, Arthur. Measurement of the degree of gelatinization of cellulose by water retention under pressure.
731. Tinsley, Selden Lee. Direct seeding in the northern Rocky Mountains.

## 1939

732. Bower, John Roy. A study of factors affecting the formation and properties of molded gelatinized wood.
733. Ellis, Francis Gordon. The carrying capacity of winter deer ranges in Idaho.
734. Hossfeld, Ralph Lowell. The action of certain strains of *Aspergillus niger* on the sawdust and aqueous extract of western larch heartwood.
735. Robinette, Willard Leslie. A study of the range habits of elk on the Selway game preserve during the summer of 1938.
736. Slipp, Albert Wiswell. The relationship of *Cronartium ribicola* to *Pinus monticola*. II. A preliminary experiment on the time required for establishment of needle infection following greenhouse inoculation of seedlings under controlled temperatures.

## 1940

737. Doll, Gilbert Bushnell. Grazing in relation to coniferous and vegetational reproduction in the cut-over white pine areas of the Clearwater drainage of northern Idaho.
738. Miller, Charles Irwin. Direct seeding in the northern Rocky Mountains.
739. Sellers, Victor Ormond. A cultural study of the heart rots of western red cedar in northern Idaho.
740. Upson, Uriah Layton. The effect of alkali upon woody tissues.

## 1941

741. Benton, Vincent Leroy. Variation in culture of several isolates of *Armillaria mellea* from western white pine.
742. Glazebrook, Thomas Bradford. Overcoming delayed germination in the seed of plants valuable for erosion control and wildlife utilization.
743. Harris, Grant Anderson. Grazing in relation to coniferous reproduction and vegetational utilization on certain cut-over white pine areas of the Clearwater drainage of northern Idaho.
744. MacGregor, Warren Stanley. The hydroxyl groups of alkali lignin.
745. Mears, John Xavier Brady. The action of chlorine upon lignin.
746. White, Henry Arthur, Jr. Diffusion studies. I. The movement of water and aqueous urea solutions in wood.

## 1942

747. Baker, Loren K. Inoculation of western white pine with *Armillaria mellea*.
748. Bingham, Richard Thomas. Studies on a *Dasyscypha* following *Cronartium ribicola* on *Pinus monticola*.
749. Blaisdell, James Pershing. Grazing on certain cut-over white pine areas of the Clearwater drainage of northern Idaho and its relation to coniferous reproduction, forage production and utilization, fire hazard factors, and vegetational change.

750. Patton, Robert Franklin. Isolation of fungi from brown cubical heart rots of western red cedar.
751. Seale, Robert Henry. A study and cost analysis of a cedar pole operation on a timber sale of the University of Idaho Experimental Forest.

## 1943

752. Low, William Wayne. Primary hydroxylation of arabo-galactan.
753. Payne, Gene Francis. The effect of sheep grazing on coniferous reproduction and forage on cut-over western white pine land in the Clearwater region of northern Idaho.

## 1947

754. Brown, James Pleas. A study of mortality in Douglas fir-larch stands in north central Washington.
755. Dick, James, Jr. The use of selenium in measuring viability of the seed of certain conifers.
756. Hodder, Richard Lloyd. The effects of clipping at three stages of development on root and top growth of seedlings of several grass species.
757. King, James E. The effect of various treatments to induce germination of seeds of some plants valuable for soil conservation and wildlife.
758. Paine, Lee Alfred. Evaluation of the role of weather in cyclic intensification of white pine blister rust in western white pine.
759. Randall, Warren Robert. A management plan for section 33, township 41 north, range 3 west, University of Idaho Forest.

## 1948

760. Arnold, Dale Lockwood. Growing space ratio as related to form and development of western pine.
761. Krier, John Peter. Effects of treatments to induce germination of seeds of several species valuable for soil conservation plantings.
762. Poulton, Charles Edgar. A study of forage volume sampling on grassland range.

## 1949

763. Burlison, Vernon Henry. Relative plot efficiency in sampling Palouse bunchgrass range.
764. Rowe, John Alfred. Mesquite gum studies.
765. Taylor, William Richard. A management plan for the West Hatter Creek unit of the Moscow Mountain Experimental Forest.

## 1950

766. Granada, Victor Miguel. Identification and estimation of some of the products obtained by stepwise hydrolysis of holocellulose.
767. Koch, Christian Burdick. Some factors affecting the bending strength of small, clear, glued-laminated beams of western larch.
768. Morton, Allen David. Sampling yields and utilization of browse on winter deer ranges in northern Idaho.

## 1951

769. Bizeau, Elwood Gerald. Factors affecting waterfowl production at Gray's Lake, Idaho.
770. Brandborg, Stewart Monroe. The life history and ecology of the mountain goat in Idaho and Montana.

- Grover, Ernest Thornton. Major state forestry legislation in the United States.
- Haupt, Harold Francis. Some factors that influence the loss of total-nitrogen from granitic soils of southwestern Idaho.
- Howard, David Ray. The possibility of using hybrid vigor in the management of American forests.
- Moosaw, James Curtis. Some effects of pelleting on seeds of range forest species.
75. Parkin, Kenneth Frederick. A study of seed provenance of Douglas fir *Pseudotsuga taxifolia* Brit. applied to forestry in Great Britain.
776. Salinger, Herbert Edgar. Factors affecting pheasant production on the irrigated lands in southern Idaho.
777. Smith, Dwight Raymond. The life history and ecology of the bighorn sheep in Idaho.
778. Williams, Roger McDowell. Preliminary investigation of the muskrat population of Gray's Lake, Idaho.
- 1952
779. Hofstrand, Arland Duane. Shear strength of glue lines of western larch as affected by the angle of the growth rings.
780. Johnson, Frederic Duane. A histological study of trunk lesions in pole blight of western white pine.
781. Lodge, Robert William. Effects of grazing on the soils and forage of mixed prairie in southwestern Saskatchewan.
782. Pringle, William Leyland. The ecology and control of St. Johnswort in Idaho.
783. Steel, Paul Edward. Factors affecting waterfowl production at Gray's Lake, Idaho.
784. Zappettini, George. A study of the ecology and control of *Halogeton glomeratus* in Idaho.

## IOWA STATE COLLEGE

1917

785. Veach, C. H. The western white pine.

1919

786. Truax, T. R. Laminated gunstock construction.

1920

787. Morrell, Frederick A. Factors to be considered in determining the size of forest administrative units.

1921

788. Bode, Irwin T. The relation of the smaller forest areas in non-forested regions to evaporation and movement of soil water.

1922

789. Ling, Wen Ming. A forestry plan for Fukien Province.
790. Steffen, E. H. Report on grazing conditions on an area of land in Klickitat County, Washington.

## 1923

791. Hadlock, Frank D. The kiln drying of lumber.  
792. Wall, Lloyd A. Critical survey of grazing literature.

## 1924

793. Davis, Edward M. The effect of milling methods on the grades of lumber produced from the western pines.  
794. Hayes, Ralph W. The silvicultural conditions governing, and resulting from, the logging of south-western yellow pine.

## 1925

795. Martin, Chester W. Characteristics and classification of named varieties of nuts which are hardy in Iowa.

## 1926

796. Correll, Lynne M. Ecological observations on an Iowa woodlot.  
797. Harrison, C. Lewis. Markets for Iowa grown timber.

## 1927

798. Gibbs, Joseph A. The growth and management of black walnut in Iowa.  
799. Hutchings, Gordon C. Stimulation of root growth in hardwood cuttings.  
800. Sherman, Edward A. Forestry as a profession.

## 1928

801. Sullivan, Walter F. The taxation of forests and woodlands in Iowa.  
802. Turney, George A. State forestry with Iowa applications.  
803. Watts, Lyle F. The determination of site quality in western yellow pine type *Pinus ponderosa*.

## 1929

804. Allen, Shirley W. Conservation aspects of the history of the Oregon and California railroad land grant.  
805. McCutchen, A. Allen. A survey of the timber growing possibilities of Story County, Iowa.  
806. Meginnis, Harold G. The effect of habitat factors on the germination of the tree and shrub species of three forest communities in central Iowa.

## 1930

807. Mickey, Myron H. The treatment of fence posts with creosote, water-gas-tar, and crank-case oil.

## 1931

808. Brown, Elbert O. Identity and pathogenicity of fungi attacking coniferous seedlings.  
809. Burmood, Margaret F. The germicidal properties of pine oil and some of its derivatives.  
810. Chase, Clarence D. Form and structure of several pines as indicators of their light and moisture requirements.  
811. Christensen, Irving L. Investigation of forest nursery practice in the United States.  
812. Garver, R. D. Small sawmill utilization of Appalachian hardwoods. Part II—Ties, timbers, and lumber. (Written in collaboration with J. B. Cuno.)

813. Hopping, George R. The Western hemlock looper *Ellopiia somnaria* Hulst.  
814. Nichols, Floyd A. An investigation of erosion control on an Iowa farm.  
815. Stoeckeler, Joseph H. The use of fertilizers for forest trees with special reference to nursery practice.

## 1932

816. Balthis, Russell F. The future possibilities of second-growth pine timber production in the east Texas commercial timber region.  
817. Gray, Gordon J. Soil erosion on a Story County farm: its detrimental effects and practical methods of control.  
818. Grund, H. Maurice. Some electrical characteristics of untreated and creosoted wood crossarms.  
819. McGlade, James C. Four methods of constructing total cubic-foot volume tables: their technic and comparative analysis.

## 1933

820. Anderson, Clarence E. The effect of commercial fertilizers upon white pine seedling stock.  
821. Dunn, Paul M. A study of some forest tree plantings on agricultural land and watershed areas in Utah showing methods of reforestation and first results.  
822. Giffen, William D. The growth of shelterbelts in Iowa.  
823. Griffith, Gerald I. The use of wood as a means of expression in interior architecture.  
824. McComb, Andrew L. The effect of vegetative cover and some attendant soil characteristics on run-off and erosion.

## 1934

825. Bateman, Bryant A. Forest management in eastern Louisiana.

## 1936

- 826.\* Larsen, Julius A. Site factor variations and responses in temporary forest types in northern Idaho.

## 1937

827. Brinkman, Kenneth Allan. Relation of growth and survival of planted conifers to soil reaction.  
828. Milius, Hans Christian. A preliminary investigation of the condition of the saw timber stands of our four southeastern Iowa counties.  
829. Test, William D. Design of the glued, laminated, bent rafter.

## 1938

830. Corbin, William Emery. Wood-finishing practices and conditions in industrial arts laboratories of northeastern Illinois.  
831. Dilworth, John Richard. Influence of site conditions on form and growth of white oak in southern Iowa.  
832. Felker, Ralph Herman. The effect of soil alkalinity on evergreen nursery stock.  
833. Granson, John Ellwood. Small sawmill operation in central Iowa hardwoods.

\* Doctoral dissertation.

834. Johnson, R. Verle. Lumber merchandising for the Wisconsin manufacturer.
835. Joranson, Philip Nathaniel. The origin and development of white oak *Quercus alba* L. sprouts in southern Iowa.
836. Julander, Odell. Determination of proper grazing indicators and use of key species in range management on the Kaibab National Forest.
837. Patterson, Archie Edgar. Construction and use of yield tables for hardwood forests in southern Iowa.

## 1939

838. Baughman, Robert William. Effect of clipping on the development of roots and tops in various grass seedlings.
839. Hughes, Ralph Harley. Carrying capacity studies of Iowa bluegrass pastures.
840. Kapel, Frank Joseph. Growth and development of green ash and black locust in relation to pH and subsoil fertility.
841. McLintock, Thomas Frederick. Factors of density, composition and growth in the oak forests of southern Iowa.
842. Phinney, Hartley Keith. The effect of fertility and water level on seedling establishment and growth in competition with grass.

## 1940

843. Bagley, Walter Thaine. Volume tables for white oak in Iowa.
844. Hicks, Ellis Arden. A comparison of inventory methods applicable to the western fox squirrel *Sciurus niger rufiventris* (Geoffroy.)
845. Kinsky, George William. Frequency of range plants as a measure of deterioration or improvement of grazing lands.
846. Melvin, James Keith. Response of tree seedlings and field planting stock to loose and briquette fertilization.
847. Polderboer, Emmett Burger. The cover requirements of the eastern ruffed grouse *Bonasa umbellus umbellus* L. in northeast Iowa.
848. Strong, Maxton Davis. Wood post end and corner constructions for wire fences.

## 1941

849. Breuer, Vladimir, Jr. Volume tables for red oak in selected areas of Iowa.
850. Cool, Bingham Mercur. Soil moisture and root distribution under some oak-hickory stands in southern Iowa.
851. Hartman, George Bernhardt. The Iowa sawmill industry—past and present.
852. Johnson, Floyd Alfred. A statistical study of sampling methods for tree nursery inventories.
853. Lowery, Oscar Horace. Utilization of lumber in grain storage structures.
- 854.\* McComb, Andrew Logan. Nutrition and growth of forest tree seedlings.
855. Oates, William Jordan. The use of glued laminated rafters in farm barns.
856. Silker, Theodore Henry. Effect of clipping upon the forage production, root development, establishment, and subsequent drought resistance of western and crested wheatgrass seedlings.
857. Sneed, Isaac Edwin. Food habits of the common badger *Taxidea taxus* (Schreber) in Iowa.

\* Doctoral dissertation.

## 1942

858. Barger, Gerald Lee. Response of black locust seedlings to variations in environmental conditions in the field.
859. Griffith, John Enos. The effect of various soil treatments on the formation of mycorrhizae and the development of seedling white pine and Douglas fir.
860. Keller, Eugene. Sprout reproduction following seasonal cutting by various methods in a hardwood stand in southeastern Iowa.
861. Lane, Richard Dale. A comparative study of the wilting coefficient and the rate of soil moisture depletion by trees and grass.
862. Rummell, Robert Sutherland. Some effects of the competition of downy chess on the establishment of crested wheatgrass seedlings and blue-stem seedlings and transplants.

## 1943

863. Trump, Richard Feigel. Mobility and range of the southern woodchuck *Marmota monax monax* (L.) in southeast Iowa.

## 1944

- 864.\* Boyd, Ivan Lewis. An ecological study of native species of sumac in relation to development and growth on eroded land and to utilization as a source of tannin.

## 1947

- 865.\* Hicks, Ellis Arden. Ecological factors affecting the activity of the western fox squirrel *Sciurus niger rufiventer* (Geoffroy).
866. McDermott, Robert Emmet. Root relationships in the competition between some tree and grass species.
867. Thomson, George Willis. An investigation of certain soil factors as related to forest composition and growth in Iowa.

## 1948

868. Brindley, John Arthur. Bionomics of the white-pine sawfly *Neodiprion pinetum* (Norton).
869. Cooper, George Raymond. Some responses of black locust to planting site treatment.
870. Palmer, Elwin Duane. Effect of dimensional changes of lumber on strength of glued joints.
871. Salinas, John Charles. The ecology and management of white-tailed deer *Odocoileus virginianus* (Boddaert) in the Ledges State Park region, Boone County, Iowa.

## 1949

872. Dorsett, George L. Certain problems of a group of wood-using industries in Iowa.

## 1950

- 873.\* Cooper, George Raymond. Response of black locust *Robinia pseudacacia* L. to environmental factors.
874. Einspahr, Dean W. Site index of oak in relation to soil and topography.
875. Hoffman, Paul Frederick, Jr. Chemotherapy and spread of oak wilt.

\* Doctoral dissertation.

876. Juvonen, Lea M. Food and house service in some logging camps in the United States and Finland.  
 877.\* Kucera, Clair Leonard. Composition and environmental interactions of a natural forested area of central Iowa.

## 1951

878. Allen, Robert Max. Factors affecting the rooting of cottonwood cuttings.  
 879. Buxton, Frank Edwin. Food habits of the white-tailed deer *Odocoileus virginianus* (Boddaert) in Boone County, Iowa.  
 880. Costa, Robert Richard. Food habits of the raccoon *Procyon lotor hirtus* N. and G. in central Iowa.  
 881. Getty, Russell Elias. Forest composition, volume, and growth in Johnson County, Iowa.  
 882.\* Schuldt, Paul Herman. Anthracnose fungi on sycamore and oak in Iowa.

## LOUISIANA STATE UNIVERSITY

## 1941

883. Anderson, Massey Harry. Natural reproduction following a partial cutting in loblolly-shortleaf types on selected areas.  
 884. McKean, Alexander Sil Kirk. Classification of farm timber into various forest products for the purpose of determining the increase, if any, in income from farm woodlots by selective marketing.

## 1948

885. Brent, Homer I. The bobwhite quail: its population density in relation to food and vegetative cover; also its management in Warren County, Iowa.  
 886. Burns, Joe Dae. Some effects of forest fires on mortality and growth of certain species of southern pines.  
 887. Clark, Harry Dale, Jr. The effect of ground cover on germination and establishment of loblolly and shortleaf pines.  
 888. Hebb, Edwin Atkins. A study of the influence of overstory on the incidence of *Cronartium* cankers on loblolly pine.  
 889. Mims, Jack Kelly. A laboratory evaluation of the toxicity of certain preservatives regarding their possible use in the cold soaking method.  
 890. Tannehill, Richard Marion. Aerial patrol by state agencies in connection with detection of forest fires.

## 1949

891. Blake, Colin Duncan. Adjusting the pressure treatment of southern pine poles to prevent post-treatment bleeding.  
 892. Newson, John Darrell. Wildlife inventory, habitat conditions and recommended management practices on a north Louisiana farm.  
 893. Redmond, Howard Ray. The relation of gray squirrel populations to habitat conditions in Stone County, Mississippi.  
 894. Townsend, Hallie Earl. A comparison of the growth and characteristics of planted loblolly pine and slash pine in north Louisiana.

## 1950

895. Strong, Omer B. Tree classification for even-aged immature, loblolly, shortleaf, and slash pine in southeast Louisiana.

\* Doctoral dissertation.



## 1951

896. Golden, Earnest Albert. The Hess Creek logging area: stand condition after fifteen years of management.
897. Jenkins, James Alton. Low pressure preservative treatment of southern pine fence posts.
898. Myers, J. Walter, Jr. An analysis of southern forest resources.

## 1952

899. Faucheux, William Albert. Quality-control production in selected saw-mill operations in the Florida parishes of Louisiana.
900. Graham, Donald Paul. The effect of *Trichoderma* and *Penicillium* molds on the toughness of loblolly pine.
901. Grigsby, Hoy C. Some soil factors affecting site index of loblolly pine in southeast Louisiana.
902. Morris, George Starks, Jr. A forest management plan for Sec. 16 T4S R2E, East Baton Rouge Parish, Louisiana.

## UNIVERSITY OF MAINE

## 1942

903. Clark, Eldon R. Relation of small mammals to availability of northern white cedar for deer browse.
904. Glasgow, Leslie L. A winter habitat study of deer in Maine.
905. Marston, Merwin A. Winter behavior of deer in northwestern Maine.
906. Takos, Michael J. An ecological study of muskrat habitat in central Maine.

## 1944

907. Brown, Charles P. The influence of forest types on the food habits of ruffed grouse in Maine.

## 1946

908. Chang, Chih-Cheng. An investigation of the effect of wetting agents on acid sulphite digestion of pine wood chips.

## 1948

909. Coulter, Malcolm W. A study of movements and habitat preferences of muskrats in Maine.
910. Dyer, Harold J. Preliminary plan for wildlife management on Baxter State Park.

## 1949

911. Dinsmore, Robert F. Evaporation of sulfite waste liquor in a long tube, forced circulation evaporator.
912. Lombard, Charles R., Jr. Evaporation of waste sulfite liquor under reduced pressure in a long tube, forced circulation evaporator.
913. Pierce, George. Extractives of yellow birch bark.

## 1950

914. Haseltine, Frank T. A study of beaver colony composition and woody plant utilization on two streams in Penobscot County, Maine.

## MICHIGAN STATE COLLEGE

## 1911

915. Robson, Albert Norwin. Reforestation.

## 1913

916. Goetz, Christian Herman. Investigations and uses of yellow pine soils for agriculture and horticulture.  
917. Sanford, Frank Hobart. Economic use of woodlot.

## 1915

918. Morbeck, George Chester. A plan for the silvicultural management of Star Island in the Minnesota National Forest.

## 1916

919. McKibbin, Clifford Worden. Developing National forest recreational resources with a preliminary resort and forest plan for a specific area in the Santa Catalina Mountains, Arizona.  
920. Wales, Henry Basil. The probable rate of growth of western yellow pine in cut-over areas, as indicated by sample plot studies.

## 1917

921. Hilton, Huber Copeland. The natural and artificial regeneration of lodgepole pine *Pinus contorta* in the central Rocky Mountain region.

## 1918

922. Wood, Devillo Demis. Reproduction in a dipterocarp forest of the Philippine Islands.

## 1924

923. Kittredge, Ray. Kiln drying, using a double duty thermostatic temperature control.

## 1925

924. Longyear, Burton Orange. Development of a method for measuring the rate of decay in wood.  
925. Mitchell, John Alfred. Forest fire protection as a state enterprise.

## 1926

926. Dressel, Karl. Woodland taxation.

## 1929

927. Clifford, Edward Davis. Nursery practice in the fertilizing and propagation of seedlings.

## 1930

928. Fehlberg, Frederic J. The effect of coniferous litter on soil moisture, germination, survival, and seedling development of Norway spruce and red pine.

## 1932

929. Weddell, Donald James. Some nursery investigations with white spruce and red pine.

## 1937

930. Kirk, Bernard Morgan. Factors affecting the establishment of forest plantation on the Kellogg reforestation tract.

## 1939

931. Bradley, George Arthur. Some common sawfly larvae attacking conifers in northeastern North America.  
932. Carter, Roy Merwin. The effect of several coniferous species on the nitrogen and organic matter content of the soil.  
933. Eisenberg, Samuel Eli. A study of the role of advertising in lumber manufacturer and association activities.  
934. Morris, Dorsey J. The water content of forest planting stock in relation to survival and growth.  
935. Vogel, Frederick Harold. A study of the decay resistance of copper-meta-arsenite treated white fir lumber *Abies concolor* Lindley and Gordon.

## 1940

936. Barr, Charles Wesley. A study of native plant associations adaptable to highway planting.  
937. Darrell, Charles Edward. Growth of white pine seedlings in relation to available carbohydrates.  
938. Metz, Robert Roy. A study of state park problems in Oakland County, Michigan and a master plan report for Dodge Brothers no. 5 state park.

## 1941

939. Dickinson, Fred Eugene. A study of the kiln drying of lumber from cottonwood *Populus deltoides* Marshall.  
940. Fry, Richard Charles. A study of the marketing of farm timber in Ingham County, Michigan.

## 1943

941. Ellis, Everett Lincoln. A study of the effect of fire-retardant treatments of six hardwood species.

## 1944

942. Hudson, Robert Keith. An experimental study of the relationship between soil moisture and symptoms of needle blight of eastern white pine *Pinus strobus* L.

## 1946

943. Jefferson, Cecil H. A study of the utilization of native woods for farm building construction in the cut-over area of Michigan, with particular reference to aspen.

## 1948

944. Gaskins, Wayne William. Aerial volume tables by forest type on the Dunbar Forest Experiment Station, Michigan.  
945. La Berge, Robert William. Various factors affecting the stabilization of wood.  
946. Robbins, Putnam William. Position of tapping and other factors affecting the flow of maple sap.

## 1949

947. Brown, Melvin D. A study of the time-value relationships in a southern Michigan band mill.  
948. Cheng, Hsiang Hsien. Present and future development of the Chinese Tibetan borderland.

## 1950

949. Brickman, Thomas Leonard. Ecology of speckled alder at the Dunbar Forest Experiment Station, Michigan.  
950. Guenther, Kenneth Wayne. An investigation of the tolerance of white ash reproduction.  
951.\* Nelson, Thomas Charles. A reproduction study of northern white cedar.  
952. Tsou, Te May. Identification of twenty-two Chinese woods.

## 1951

953. Horn, Allen Frederick, Jr. The effect of certain climatic factors on the height growth of red pine in Chippewa County, Michigan.

## 1952

954. Duvendeck, Jerry Paul. Some effects of deer browsing on northern Michigan forest plants.  
955. Fritz, David Henry. A study of the street trees of Massillon, Ohio.  
956. Goff, James Winthrop. A roof framing system for story and one-half residences.  
957. Gunn, Clare Alward. A study of changes in buildings for tourists and resorters in Michigan.  
958. Overlease, William Roy. A study of the naturalist program at McCormick's Creek State Park, Spencer, Indiana.

## UNIVERSITY OF MICHIGAN

## 1923

959. Maas, John B. The commercial kiln drying of lumber.

## 1930

- 960.\* McArdle, Richard Edwin. The relation of mycorrhiza to coniferous tree seedlings.  
961.\* Winters, Robert Kirby. Stem form of white oak.

## 1931

- 962.\* Hall, Ralph Corbin. The bronze birch borer and other factors in post-logging decadence in northern hardwoods.

## 1932

963. Davis, Kenneth. Sustained yield vs. destructive logging in the loblolly pine-hardwood forests of the middle Atlantic coastal plain.  
964.\* Martell, Eldred Roland. Relation of the physico-chemical properties of Norway spruce cell sap to site.  
965.\* Norton, Newell Atwood. Mechanical and physical properties of five Latin American hardwoods: *Prioria copaifera* Gris., *Piptadenia pittieri* Harms, *Toluifera balsamum* L., *Fagara monophylla* Lam. and *Guarea trichilioides* L.

\* Doctoral dissertation.

## 1933

966. Crafts, Edward C. A forest industry and its dependent population.  
967.\* Wilford, Bill Howard. The spruce gall aphid *Adelges abietis* (Linnaeus) in Southern Michigan.

## 1934

- 968.\* Cockrell, Robert Alexander. An anatomical study of eighty-one Sumatran woods.  
969.\* Lehotsky, Koloman. Studies on the biology of black locust.

## 1935

970. Otter, Floyd L. Business management in forest fire protection.

## 1936

971. Carbeck, Richard H. The shearing strength of glued joints of several species of South American woods made with commercial glues.  
972. Collet, Marjen Henry. Technical and financial considerations for the naval stores industry.  
973. Samuelson, C. A. Timber management plan for the Kawishiwi working circle.  
974. Tworck, Elton C. Treatment of hardwood stumps to prevent sprouting.  
975. Van Alsburg, Franklin. Chemical treatment of hardwood stumps to prevent sprouting.

## 1937

976. Bickford, Richard S. The regulation of ponderosa pine.  
977. Patronsky, Louis A. Construction of a suitable equipment for the machinability of wood tests.  
978. Postle, William C. The effect of different percentages of sand, clay and peat in soil mixtures on the emergence of seedlings.  
979. Smith, Norman F. A fire protection plan for Isle Royale National Park.  
980. Spike, Allen Bruce. Cost analysis in forest management.  
981. Tegge, Albert R., Jr. A method for rating the comparative machinability of woods.  
982.\* Yeager, Lee Emmett. Food relationships of leaf-beetle beetles on the Huron National Forest.

## 1938

983. Blades, Carlton J. Big-game animals of the West and their relation to range management.  
984. Cochran, Clyde R. A test for correlation between variation in specific gravity and viability within a seed group of Scotch pine seed.  
985. Covell, Charles. A chart to determine the economical spacing for logging spur roads.  
986. Crammer, J. R. Public control of private cutting.  
987. Fleischer, Herbert O. The portable sawmill in forest management.  
988.\* Hosley, Neil Wetmore. Woody plants used by wild life in the north-eastern United States.  
989. Johnston, J. P. The poisonous plants of Michigan.  
990. MacGregor, Charles E. Management plans for the development of the Huron River Wildlife Sanctuary.

\* Doctoral dissertation.

991. Palmer, William M. The effect of air-conditioning upon the moisture content of woods used for furniture and interior woodwork in dwelling houses.
992. Staley, James G. A study of sawmill capacity and investment in a selected area of the Douglas fir region of North America.
993. Stoddard, Charles H. Reconciling forest conservation with forest liquidation in the Lake States region.

## 1939

994. Ball, Chester Curtis. An artificial key to common shrub and herb seeds of southern Michigan and vicinity.
995. Carow, John. Southern pulp and paper; southern forests and southern forestry. A regional study.
996. Cashin, Daniel J., Jr. Study of rural zoning.
997. Conway, Emmett. Methods of logging, transporting, and storing pulpwood in the United States, Canada, and some European countries.
998. Conway, Emmett. A comparative study of the pulpwood industry in the United States and principal foreign countries.
999. Covel, Charles E. Management plans for the East Texas Land Company.
1000. Edgar, Robert R. Estimation of costs and design of logging systems for the northern hardwoods.
1001. Elmgren, Roy. Survey of forestry education in the U.S. with particular reference to courses and curricula.
1002. Farrington, Robert C. Result of 20 years of management of the Eber White woodlot.
1003. Flaten, Clarence M. A study of chlorosis of *Pinus resinosa* in a forestry nursery, with special reference to some mineral deficiencies.
1004. Goldman, David S. Some evidences of the presence of tension wood in three native hardwoods.
1005. Gulbrandsen, Carl F. The bonding of certain metals with wood in ply construction.
1006. Lathrop, Harry Freeman. Logging plan and financial forecast for the Goodman working circle.
1007. Lathrop, Harry F. Regulation of the growing stock and calculation of the cut on the Goodman working circle by basal area control.
1008. McMillan, F. A. Chemical treatment of hardwood stumps to prevent sprouting and suckering.
1009. Metzger, Robert L. An experiment on the effect of root pruning of planted coniferous stock.
1010. Scott, William Edgar. Economic spacing of roads when skidding to landing with tractors and arches on slopes ranging up to 60 per cent.
1011. Towell, William E. Effect of root pruning on planted coniferous stock.
1012. Towell, William E. Reproduction in a hardwood forest in southern Michigan.
1013. Weller, Nolan W. Management and logging plan for Kaul Land Company tracts.
1014. Wilder, Tom V. A survey of the tariff and Canadian-American trade in forest products.

## 1940

1015. Allen, Charles G. Specific gravity and rate of growth of spruce in northern Ontario.
1016. Brender, E. Results of improvement cuttings at Eber White woods.

1017. Carey, S. Cooper. The practical application of minimum cost planning to a cordwood operation in southeastern Canada.
1018. Coffman, C. S. A study of seedling reproduction in Eber White woods.
1019. Cook, Francis. Development and financial merit of three working plans for a southern pine forest.
- 1020.\* Davis, Kenneth Pickett. Economic management of western white pine forests.
1021. Fleming, Burt. A dendromorphometer, the development of a tree class meter.
1022. Gustafson, R. O. Glaze damage with special reference to the northern hardwoods region.
1023. House, Ray W. Farm forestry problems of the soil conservation service in Region 3.
- 1024.\* Ingalls, Edmund E. The prediction of diameter growth of trees in evenaged stands.
1025. Metcalf, William Sherwood. Cultural and microscopical studies designed to differentiate between similar but geographically distinct forms of fungi.
1026. Mosebrook, Harry S. A recreational land use plan for a unit of the Wayne National Forest, Ohio.
1027. Rutherford, William Jr. The intent in ownership of Cheboygan County, Michigan.
1028. Spencer, David L. The value of kettleholes to wildlife in southern Michigan.

## 1941

1029. Argetsinger, Lyle M. Chemical fertilizer treatments of Norway pine transplants in the University of Michigan nursery.
1030. Beckwith, Stephen L. Preliminary study of succession on abandoned agricultural uplands, and its relationships to wildlife management.
- 1031.\* Chatters, Roy Milton. A study of the ash of some American commercial woods with special reference to the existence of siliceous skeletons in the residues of cell walls.
1032. Corathers, J. Edwin. Development and application of farm woodland management plans in the loblolly-shortleaf-hardwood region of the United States.
1033. Desjardins, Albert. Paper birch and yellow birch, their properties and uses.
1034. Gable, Thomas O. Technical and physical properties of "yellow jack" and "black jack" jack pine.
1035. Gordon, Solon. Growth hormone in embryo dormant seeds.
1036. Gunderson, Glenn K. A study of community forests; their possibilities in Michigan, and a community forest plan for the city of Dexter, Michigan.
1037. Hartrick, Gordon D. An approach to economic planning of private logging operations in the Pacific Northwest.
- 1038.\* Herbert, Paul Anthony. The development of a marginal land county in northern Michigan.
1039. Lamb, F. Bruce. Two strains of balsa causing disease in conifers.
- 1040.\* Mosby, Henry Sackett. The wild turkey in Virginia: Life history and management.

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\* Doctoral dissertation.

- 1041.\* Preston, Richard Joseph. The growth and development of the root system of juvenile lodgepole pine.  
1042. Schaap, Glenn M. Effectiveness of reforestation and other practices in controlling soil erosion.  
1043. Traczewitz, Oscar G. The development of a canoe route on the Huron River, and adjacent waters.  
1044. Varner, Reed W. Black heart of yellow birch.  
1045.\* Crafts, Edward C. A plan for insurance against drought on the range lands of Arizona and New Mexico.  
1046.\* Gerstell, Richard. The place of winter feeding in practical wildlife management.  
1047.\* McKean, Herbert B. Glued laminated beams composed of two wood species.  
1048. Mendel, Joseph J. Wood roads, their location, spacing and standards.  
1049. Merritt, Clair. A guide for foresters contemplating self-employment.  
1050. Ohlman, Robert G. Study of existing land use in Webster township, Washtenaw County, Michigan.  
1051. Palley, Marshall Nevin. Ideals and purposes in American forestry.  
1052. Shames, Lee M. Analysis of lumber prices in the United States.  
1053. Sturgeon, Edward Earl. A study in the tax-delinquent lands, Cheboygan County, Michigan.

## 1943

1054. Cancell, Benton. A study of the paper industry in the northeastern United States.  
1055.\* Marshall, William H. The biology and management of the pine marten in Idaho.  
1056. Schwartz, Arnold A. Timber products control.  
1057. Swank, Wendell G. Germination of seeds after ingestion by ringneck pheasants.  
1058. Yost, William P. Obtaining lower costs in pulpwood production.

## 1944

1059. Bauch, David G. An experiment on the effect of root pruning on planted coniferous stock.  
1060. Paquet, Gerard. Forest-fire fighting.  
1061. Park, C. A. Oxbow farm, its past, present and future.

## 1945

1062. Eisenhauer, William D. A preliminary study of the manufacture of compreg, impreg, and normal laminated cottonwoods, and a comparison of their mechanical and physical properties.  
1063.\* Farnsworth, Clinton E. Terminal elongation of a number of tree species in relation to certain environmental conditions in northern New York.  
1064.\* Herrick, Allyn M. Simplification of stand structure in timber management.  
1065. Jobidon, Arthur. A comparison of financial results of various logging plans on the Montmorency limits, Quebec.  
1066.\* Shames, Lee M. Lumber consumption in the United States.

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1067. Arnold, Frederick J. Simplified methods of logging cost control.

\* Doctoral dissertation.



1068. Halligan, James V. A critical analysis of a management plan for a mixed hardwood forest in the Lake States.
1069. Hartong, Allan L. Application of basal area control to an understocked stand in the Appalachians.
1070. Heczko, Carl G. A forest management and logging plan for the Imp Lake tract in Gogebic County, Michigan.
1071. Holekamp, James A. Road spacing and cost formulae for stands of two or more products.
1072. Jenkins, Ivor N. An experiment on the effect of root pruning and two different planting methods on coniferous stock and a study of natural hardwood reproduction in Stinchfield woods.
- 1073.\* Kelker, George H. Measurement and interpretation of forces that determine population of managed deer herds.
1074. Love, D. V. Some methods of collecting logging costs.
1075. Morgan, James T. Provision for land use regulations in the state soil conservation districts laws.
1076. Mullin, Robert E. Soil reaction and reforestation.
1077. Sherman, Arthur E. A comparative study of the lumber industry with special reference to prices, employment, wages and production.
1078. Stevens, Leroy A. Sustained yield forest management versus forest liquidation.

## 1947

1079. Buell, David L. Economic analysis of a mechanized pulp-wood operation.
1080. Corlett, W. Southland. Logging with a balance sheet.
1081. Groncki, Adolph R. The effect of a new type fibrous flour filler on the physical and mechanical properties of phenol formaldehyde plastic.
1082. Harris, Hubert. Purchase and cutting plans for two sections of spruce in Canada.
1083. Hellings, Thomas. Plans for management—block "X" Menominee Indian Reservation.
1084. Hesterberg, Gene A. Field study of the environmental factors which affect bird activity.
1085. Hopkins, Frederick S. The marketing of timber products and its bearing on forest practice.
1086. Kotok, Edward S. The application of central staff principles to the fire control problem.
1087. Leebrick, Karl Clayton. Ruffed grouse in the tamarack-hardwood associations of southern Michigan.
1088. McFarland, Irvin H. Law enforcement as it relates to timber trespass on the National forests.
1089. McKillop, Theodore D. Financial aspects of long-length logging in the second-growth pine-hardwood forests west of the Mississippi River.
1090. Marrero, Jose. A survey of the forest plantations in the Caribbean National Forest.
1091. Melton, Rex E. A study of the European pine shoot moth in a young red pine plantation in southern Michigan.
1092. Meter, James W. A comparison of selective logging and clear cutting in the hardwood-hemlock forests of the northern Lake States.

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\* Doctoral dissertation.

- 1093.\* Morris, Robert F. The use of frass-drop measurement in studies on the population and ecology of the European spruce sawfly *Gilpinia hercyniae* (Htg.)
1094. Nixon, Horace O. The practicability of group management of small, privately owned forest tracts.
1095. Pardee, L. P. Recreation on a state level.
1096. Pope, Clem L. The effect of grades upon the performance and operational costs of trucks.
1097. Ranghel, Aparicio. The forests of Colombia.
1098. Shipman, Robert D. Soil organisms in a natural forest and in a plantation forest.
1099. Steigerwaldt, Edward F. How to use aerial photographs in forestry.
1100. Stepson, Harry. An approach to the solution of two industrial problems.
1101. Tatto, Lino. Preliminary study of the shearing strength of five Brazilian species glued with cold-setting resins.
1102. Wallace, Oliver P. A simple method for grading hardwood logs and determining log values for New Hampshire.
1103. Wear, John F. Aerial photo cruise of all-age mixed hardwoods in northern lake region.
1104. Whipple, Sherman D. Growth studies of Scotch pine in Stinchfield woods.
1105. Wray, Robert D. A study of the growth responses of residual sugar maple after commercial clear cutting.
1106. Youngberg, Chester T. Natural reproduction after grazing in the Stinchfield woods as affected by crown density and soil conditions.
1107. Zillgitt, Walter M. Northern hardwood cutting methods.

## 1948

1108. Barrett, John W. A regulatory cutting plan for Bonner's Ferry working circle, Kaniksu National Forest, Idaho.
1109. Comlossy, Frederic B. Chemical treatments to hasten and increase germination of black locust seed.
1110. Galvan, Luis. Tentative management of tropical forests by using the control basal area method on mahogany and cedar forests in eastern Peru.
1111. Gilligan, James. Naturalist lecture study. Rocky Mountain National Park—1948.
1112. Hammond, H. F. Wildlife management plan and planting schedule for Stinchfield woods.
1113. Kenaga, Duane L. A comparison of water repellency-test methods as used for wood; and comparison of three commercial oil-soluble wood preserving solutions.
1114. McKay, Robert A. A comparative study of the properties of tension wood and normal wood from four American hardwoods.
1115. May, William W. A selected list of films for use in the field of forestry and conservation.
1116. Reeder, Edson A. A bibliography on the machining of wood.
- 1117.\* Rowbury, James G. The application of accounting theory to the field of industrial forest management.
1118. Senne, Clifford W. A historical study of the Huron-Clinton Metropolitan Authority.

\* Doctoral dissertation.

- 1119.\* Snyder, Harry M. A regional analysis and plan of integrated management for the cut-over uplands of southwest Louisiana.
- 1120. Thiede, Russell W. Effect of moisture content of the wood at the time of bonding and subsequent to bonding on glue joints made with a cold setting urea-formaldehyde resin adhesive.
- 1121. Thomas, Philip B. A method of appraising the value of forest land and even-age growing stock.
- 1122. Treuttner, Keith. An inventory of the coastal pine sub-region forests of Tehama County, California, with recommendations for sustained yield management.
- 1123. Vodak, Robert C. Pruning in the management of ponderosa pine.

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- 1124.\* Arnold, Richard Keith. Economic and social determinants of an adequate level of forest fire control.
- 1125. Barney, J. R. A preliminary study of the effect of increased moisture content on red oak in drawer construction and the value of one chemical inhibitor.
- 1126.\* Bateman, Bryant A. Wildlife—a secondary crop on forest land managed primarily for timber production.
- 1127. Bowman, Barclay Keith. An investigation into the possibility of developing straight line time trends based on basal area to aid in determining costs in the logging industry.
- 1128. Bruning, Harold R. A model forest management plan for private forest properties.
- 1129. Brunson, Forrest Dean. Height versus diameter as the most satisfactory basis for expressing stand stocking in forest management.
- 1130. Engle, LaMont G. Volume and value growth of sugar maple in upper Michigan.
- 1131. Hardy, Charles E. Multiple use management on Myrtle Creek.
- 1132. Mignery, Arnold L. A study of possible uses of continuous strip aerial photography in forestry.
- 1133. Milham, Robert N. A comparison of strength characteristics of the mortise and tenon joint and Dowel joint.
- 1134. Miller, Thomas B. Effect of variation of cutting angle on surface quality in shaping aspen, a study of machinability.
- 1135. Ott, Charles A. Applications of aerial photographs and stereograms in the forest survey.
- 1136. Richards, Elmer V. A winter deer browse study on shrubby vegetation of the George Reserve, Mich.
- 1137. Schooley, Clayton. An experiment on the effect of root pruning and two different planting methods on coniferous stock and a study of natural hardwood reproduction in Stinchfield woods.
- 1138. Smith, McClain B. Machine tree planting.
- 1139. Steele, Robert W. A 20-year cutting plan of management for a stand of 100-year-old Douglas fir.
- 1140. Tappan, Milo T. An investigation of logging road planning using aerial photographs.
- 1141. Woog, Alan Herbert. The establishment and development of the Yellow Springs, Ohio, School Forest.
- 1142. Worth, Harold E. A basic study of drawers in wood household furniture.

\* Doctoral dissertation.

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1143. Alemdag, Seref. To determine a road location in Newcomb tract by using the aerial photographs.
1144. Bamborough, James E. A study of the dimensional stability of a panel wood-waste core material.
1145. Beacom, William A. Do we need a revision of U.S. Forest Service grazing regulations?
- 1146.\* Beckwith, Stephen Lyon. Ecological succession on abandoned farm lands and its relationship to wildlife management.
1147. Bender, Walter Louis. Management of the forest lands of the Ahonen Lumber Company of Ironwood, Michigan.
1148. Conard, Jay Glynn. The significance and the problems of the farm woodlots in Washtenaw Co., Michigan.
1149. Denton, Robert Eldon. An ecological study of *Ips perturbatus* (Eichhoff.)
1150. Eren, Talat. Seeding and planting practice in forestry.
1151. Forests, David Victor. The development and evaluation of the cross-lap test specimen and apparatus for testing adhesives in tension.
1152. Franz, Norman C. Study of open glue joints in edge-glued panels.
1153. Hofferber, C. M. A management plan for five working circles of the Lolo National Forest to aid in stabilizing the forest industry of Missoula, Montana.
1154. Jordahl, Harold Conrad. A technique for evaluating deer browsing.
1155. Kutack, Jason Noel. Land acquisition procedures for conservation use.
1156. Lane, William Norman. Coniferous plantation management problems in lower Michigan.
1157. MacGillivray, Hugh George. The white-marked tussock moth *Homocampa leucostigma* (A. & S.) (Liparidae).
1158. McInnis, Bailiss Cago. Marketing of furniture.
1159. Martin, Ross Vincent. The effect of sap-stained wood on the glue joint strength of American elm *Ulmus americana* and red maple *Acer rubrum* when glued with animal glue.
1160. Pakula, Al. A timber inventory made from aerial photographs alone.
1161. Pirsko, Arthur R. The history, development, and current use of forest fire danger meters in the United States and Canada.
1162. Roach, Benjamin Arthur. A study of the specific gravity of Norway spruce as affected by rate of growth and other factors.
1163. Sarles, Raymond L. A study of some of the physical properties of the soil and soil reaction in relation to species selection, Gardner tract.
1164. Schmidt, Orvel Albert. Pulpwood production on cut-over lands in Wisconsin.
1165. Snyder, Robert Earl. The uses, composition, and testing of oilless wood agricultural bearings.
1166. Stoll, Richard E. Premill planning for efficiency in small sawmill operation.
- 1167.\* Wadsworth, Frank Howard. The development of the forest land resources of the Luquillo Mountains, Puerto Rico, 1949.
1168. Webb, Frank Ernest. The biology of the larch casebearer *Coleophora laricella* (Hubner) in New Brunswick.
1169. Williams, LeRoy Gordon. A basic study of pentachlorophenol as a wood preservative and preliminary experiments in treatment of eastern hemlock with a low viscosity pentachlorophenol solution.

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\* Doctoral dissertation.

1170. Youngs, Robert Leland. A study of the effect of made case-hardening on moisture content determinations made with electrical moisture meters.

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1171. Arthur, Alfred Pibus. The biology of *Sarcophaga aldrichi* Parker, a dipterous parasite of the forest tent caterpillar *Malacosoma disstria* Hubner, Lepidoptera.
1172. Banner, Gilbert. A study of the role of citizen organizations in the conservation movement.
- 1173.\* Chang, Ying Pe. Anatomy of wood and bark in Rubiaceae.
1174. Church, Joseph Burrows. Custom sawing with a Jackson lumber harvester.
1175. Giles, John Walter. A management analysis and provisional working plan for the Bonnechere management unit.
1176. Groncki, Adolph Robert. The effect of certain factors of site on the physical and structural properties of Norway spruce wood.
1177. Hannon, Lawrence Paul. A comparison of moosehorn readings with crown closure estimates from aerial photographs.
1178. Hartesveldt, Richard John. Forest-tree distribution in Jackson County, Michigan, according to original land survey records.
1179. Hyvarinen, Matti Juhani. A comparative time and cost study of making sawtimber with some manual saws as compared with Jobu power saw.
1180. Jones, Robert Alexander. The use of a variable plot radius cruising device for aerial photographs.
1181. Kim, Myung-Soo. A study of the accelerated kiln drying schedules for hard maple.
1182. Lecheler, Louis Edward. Accelerating hard maple drying schedules; a report on a research problem conducted at the University of Michigan, spring, 1951.
1183. Mathews, William Goodloe. A study of factors involved in the use of three dimensional pictures as a visual aids medium.
1184. Merk, Joseph William. Tree species distribution on the basis of the original land survey of Washtenaw County, Michigan.
1185. Mosteller, Joseph Brown. A study of tree growth with the dial gauge dendrometer.
1186. Pastoret, James Peter. A comparative study of some modern wood-working machinery.
1187. Riley, John Clarke. Control of undesirable woody growth.
1188. Snodgrass, James Dodd. Timber mechanics for forestry students.
1189. Southard, Harry Randolph. Some factors affecting red oak germination.
1190. Staebler, George Russell. Growth and spacing in an even-aged stand of Douglas fir.
1191. Stein, Robert Edward. A history of social legislation and its influence on the forest industry.
1192. Strothmann, Rudolph Otto. A comparison of Wilde method of organic matter determination and the official method, with special reference to forest soils.
1193. Tsoumis, George Thomas. A study of the strength and related properties of *Fraxinus americana* L. through standard tests of small clear specimens in green condition.

\* Doctoral dissertation.

- 1194.\* Varner, Reed William. The significance of wood rotting fungi in the production and utilization of jack pine in lower Michigan.
1195. Villevik, John Unger. The use of fire in the silvicultural management of loblolly pine in even aged stands on the eastern coastal plain.
1196. Vuokila, Yrjo Ilmari. On sampling techniques in forest inventories.
1197. Yambert, Dale William. A wildlife program for Saginaw Forest.
1198. Yambert, Paul Abt. A story of conservation (for ten to fourteen year old children); supplemented by a guidebook for teacher or parent.

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- 1199.\* Adams, Thomas Cooper. Cooperative and federal sustained yield forest units; a problem in resource management.
1200. Archibald, Philip Linwood. A historical and progress study of the Huron-Clinton Metropolitan Authority.
- 1201.\* Badran, Osman Adley. A determination of the relationship between certain soil moisture conditions and the development of seedlings of some forest tree species.
1202. Banash, Stanley Edward. Forest tent caterpillar outbreak in Michigan.
1203. Bassett, John Richard. The silvicultural and financial aspects of growing Christmas trees in southeastern Michigan.
1204. Bolon, James Robert. Study of a method for determining the stresses in plywood glue lines.
- 1205.\* Cheo, Ying Chang. An investigation of methods of improving the bonding qualities of soybean glue.
1206. Dobberstein, Ralph Arnold. The continuous inventory system in unevenaged forest management.
1207. Foulds, Raymond Thomas. The place of marketing in farm woodlot economics in the eastern U.S.
1208. Greenawalt, Vernon Arthur. The susceptibility of certain species of elm to *Tubercularia vulgaris*.
1209. Harrison, Robert Peyton. *Cronartium cerebrum* on ponderosa pine in Michigan.
1210. Hinken, Edward Wm. A method of studying the effects of pressures of glue line thicknesses of the tensile strength of glued-wood joints.
- 1211.\* Husch, Bertram. The silvics and silvicultural treatment of black cherry in northwestern Pennsylvania.
1212. Jackson, Willard Lewis. Precision measurement of form improvement due to pruning in a red pine plantation in lower Michigan.
1213. Lanigan, Charles Frank. Conservation and its role in high school biology textbooks.
1214. McArdle, Richard Coppedge. History of forest fire prevention in the U.S.
1215. McCowan, Vaughan Fremont. A preliminary study of starvation effects of *Malacosoma disstria* Hbn.
1216. Muhlenberg, Nicholas. The role of energy in conservation.
1217. Palmquest, Jack Allen. A study of natural regeneration of eastern white pine in northern Michigan.
1218. Peszynski, Edward. Methods for storage of forest tree seeds.
1219. Peterson, Theodore Arthur. The Wisconsin northern highland state forest plantations.

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1220. Remele, Kermit Evans. A central states aerial volume table for hardwoods revised for use in southern Michigan.
1221. Scheffey, Andrew J. Werner. Conservation and the resource generalist.
1222. Stage, Albert Randall. A comparison of the valuation of regularly and irregularly distributed growing stock from the standpoint of a going concern.
1223. Van Slyke, Arthur Lawton. Some techniques for a program of cost control at the Causapsca Forest Research Station.
1224. Wallner, Richard Lee. The role of the newspaper in the conservation movement.
1225. Young, Gerald James. Tree distribution in St. Clair and Macomb Co., Michigan, based on original land survey records.

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## 1918

- 1226.\* Hofmann, Julius V. The importance of seed characteristics in the natural reproduction of coniferous forests. University of Minnesota. Studies in the biological sciences. no. 2.

## 1921

- 1227.\* Graham, S. A. The influence of physical factors of the environment on the ecology of certain insects in logs. Minnesota. State Entomologist. Report. v. 19.

## 1927

1228. Corson, C. W. Classification into types of the forest area of the Cloquet Forest Experiment Station.

## 1933

- 1229.\* Buckman, S. J. A study of certain factors influencing the movement of liquids in wood.

## 1934

1230. Anderson, C. H. Root development in seedlings of Norway pine, balsam fir, and white spruce with relation to the texture and moisture of sand soils.
- 1231.\* Chase, W. W. The composition, quantity, and physiological structure of gases in tree stems.

## 1935

- 1232.\* Kaufert, F. H. The biology of *Pleurotus corticatus* Fries.

## 1937

1233. Cheo, Kwoh Hwa. A preliminary study of shoot and root development of certain coniferous and hardwood seedlings in forest and prairie soils.
- 1234.\* Erickson, Harvey. Directional permeability of seasoned woods to water and some factors which affect it.
1235. Khan, M. S. A study of the forest working plan.
1236. Li, Ying-Chen. A study of the germination and development of *Pinus banksiana* and *P. resinosa* during a hot and dry season.

\* Doctoral dissertation.

1237. Ma, Ta Pu. Moisture content of jack pine cones of various ages and the relationship of the time required for opening together with the influence of the duration and intensity of extraction heat on the vitality of the seed.
1238. Shen, Hsioh-li. The viability of *Pinus banksiana* seed from cones retained on the trees for various periods.

## 1938

1239. Kaufman, Clemens M. A study of the root development of cottonwood *Populus deltoides* var. *virginiana* Sarg. on two islands in the Arkansas River near Bentley, Kansas.

## 1941

1240. Coffin, Gordon Reid. Production and marketing of small sawmill lumber in northern Minnesota.
- 1241.\* Deters, Merrill Edgar. Silvicultural aspects of woodland management in southeastern Minnesota.

## 1942

- 1242.\* Bensend, Dwight Winfred. The effect of nitrogen on the growth and drought resistance of jack pine seedlings in sand cultures and in nursery soil.
- 1243.\* Kukachka, Bohumil Francis. The systematic anatomy of the woods of the Tiliaceae.
1244. Lorenz, Rolland Carl. Discolorations and decay resulting from increment borings in hardwoods.
1245. Rogers, Sedgwick C. The chemical composition of wood *Populus tremuloides* Mich., decayed by *Fomes igniarius* (L.) Gill.

## 1943

- 1246.\* Kaufman, Clemens M. Root growth of jack pine *Pinus banksiana* Lamb. on several sites in the Cloquet forest.

## 1946

1247. Beebe, Robert R. Use of aerial photographs in timber cruising.
1248. Brede, William F. Preparation of controlled maps and timber cruising by the use of the vertical aerial photograph.
- 1249.\* Cheo, Kwoh-hwa. Ecological changes due to thinning red pine.
1250. Evans, Glenn F. The management of aspen for pulp production in the Lake States.
- 1251.\* Hansen, Henry Leo. An analysis of jack pine sites in Minnesota with special reference to site index, plant indicators, and certain soil features.
1252. Sorge, Norman. Fire as a silvicultural tool.

## 1947

1253. Djerf, Harvey Edward. The effect of slash disposal methods on reproduction and fire hazard in the black spruce swamp type of northern Minnesota.
1254. Granum, Bernard M. White-tailed deer in timber management.
1255. Haug, Gunnar Christian. Public regulation of privately owned forests in Norway and Sweden.

\* Doctoral dissertation.



1256. Johnson, Russell W. Vegetative propagation of forest trees by stem cutting.
1257. Mogren, Edwin W. A comparison of the growth rate of three species of pine on two soil classes.
1258. O'Neil, Gerald J. A new development in pulp wood harvesting.
1259. Pierce, Donald Elbert. The rooting of various ages and sizes of cottonwood *Populus deltoides* cuttings.
- 1260.\* Zivnuska, John A. Business cycles, building cycles, and the development of commercial forestry in the United States.

## 1948

- 1261.\* Behr, Eldon August. Studies on passage of liquids and dissolved materials through wood under pressure and diffusion gradients.
1262. Berkland, Bruno Lars. Winter use by white-tailed deer of recently cutover jack pine areas on the Cloquet Experiment Station.
- 1263.\* Nayer, Amar N. Swelling of wood in various organic liquids.
1264. Schlesinger, Charles. Reforestation of brush areas in the Lake States.
1265. White, Henry G. Forest regulation. (A study of public control of cutting practices on private forest land in the United States.)

## 1949

1266. Anderson, Ralph Leo. The black spruce dwarf mistletoe in Minnesota.
1267. Chai, Tsan Sing. The viability of black spruce seed in relation to the cone ages.
1268. Clausen, Victor. A study of the heartwood of several species of the genus *Populus*.
1269. Collins, Paul Everett. The adaptability of various tree and shrub species to farmstead windbreak plantings in the Minnesota prairie regions.
1270. French, David W. The synergistic relationship of pentachlorophenol, copper naphthenate, and phenyl mercury oleate.
1271. Lee, Robert E. An analysis of forest valuation methods, with special reference to their application in the valuation of immature balsam fir stands in northeastern Minnesota.
1272. Lindholm, Arthur E. A practical procedure for the application of aerial photographs to forest survey work.
1273. McCarty, Eugene Francis. A study of the factors contributing to the durability of diamond willow heart wood.
1274. Magnus, Lester T. Cover type use of the ruffed grouse on the Cloquet Forest Experiment Station in relation to forest management.
1275. Montano, Julio. The reaction of aspen wood with aqueous alkaline solutions of sodium hydrosulfite. ( $\text{Na}_2\text{S}_2\text{O}_4$ ).
1276. Wheeler, Wm. P. A physiological study of dormancy and germination of hackberry seed *Celtis occidentalis* L.
1277. Wood, Raymond J. Water soaking pregermination treatment of seed.
1278. Wu, William C. The pulping properties of decayed aspen wood *Populus tremuloides* Michx. infected by *Fomes igniarius* (L.) Gill by the soda process.

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1279. Irving, Frank D. Some possible effects on wildlife of controlled burning in pine types of Minnesota.

\* Doctoral dissertation.

1280. Juntilla, Harry W. A study of the importance of interception of precipitation by tree crowns.  
1281. Loerch, Karl A. The effects of sodium trichloroacetate on the germination and survival of red pine seedlings.  
1282. Merz, Robert. Germination and survival of various tree species established by direct seeding on strip-mined lands in Ohio.  
1283. Talbert, Walter W. Farm forestry problems as related to the planting of farm woodlands.

## 1951

1284. Buckman, Robert E. A study of the regeneration of black spruce on certain cutover swamp sites in northern Minnesota.  
1285. Dixon, Sandberg. The regeneration of quaking aspen by root suckering.  
1286.\* Duncan, Donald P. A study of some of the factors affecting the natural regeneration of tamarack *Larix laricina* (Du Roi) K. Koch in Minnesota.  
1287. Grapp, Louis. The gypsy moth and its control by forest management.  
1288. Heinselman, Miron L. The extent of natural conversion to other species in the Lake States aspen-birch type.  
1289.\* Hsiung, William Wen Yue. An ecological study of beaked hazel *Corylus cornuta* Marsh. in the Cloquet Experimental Forest, Minnesota.  
1290. Jokela, Jalmer J. The economics of jack pine thinnings as affected by a fence post market.  
1291. Larson, Philip E. The tolerance of forest nursery stock to various applications of sodium trichloroacetate.  
1292. Marden, Richard. Estimation of cull in standing timber.  
1293. Meek, Wayne L. The effect of sodium hydrosulfide on phenolic compounds.  
1294. Meyer, J. Donald. Some ecological aspects of prickly ash with respect to possibilities for its control by the use of chemicals.  
1295. Nelson, Lowell. The preservation of plant materials used for Christmas decorations.  
1296. Seed, Gerald. The study of some factors affecting regeneration of the clear-cut mature spruce-fir type in the Lake of the Woods area.  
1297.\* Stoltenberg, Carl. Progress in rural zoning in northern Minnesota.

## 1952

1298. LaMois, Loyd. Growth predictions on a maturing stand of Norway pine.  
1299. LaMois, Loyd. Photoelectric cells in the classifying of stand crown densities.  
1300. LaMois, Loyd. Summary of volumes and growth on Norway pine types on the Cloquet Forest.  
1301. Prielipp, Donald. Balsam fir tree volume in the Lake States.  
1302. Prielipp, Donald. Decay in balsam fir in the Upper Peninsula of Michigan.  
1303. Wasilewski, Alexander. Growth as a factor in the silviculture of the major forest types in Itasca State Park.

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\* Doctoral dissertation.

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1950

1304. Glaser, Edwin Herman. A case study of income possibilities from small managed woodlands in Missouri.  
1305. Paulsell, Lee Kent. A management plan for the Weldon Spring Experimental Forest.

1952

1306. Hunt, Ellis Verne, Jr. Analysis of sawmilling costs.  
1307. Nichols, J. Milford. Effect of chemicals on several Missouri hardwood tree species.  
1308. Ochrymowych, Julian. Mineral nutrition and growth of eastern red cedar on Missouri soils.  
1309. Shaw, Dale Leroy. Defects in Missouri oaks.

## MONTANA STATE UNIVERSITY

1925

1310. Daproza, Juan. Silvicultural management of the national forests as a basis of Philippine forestry policy.

1930

1311. Beall, Carl F. The effect of laboratory controlled artificial light. Part 1. On germinations and early growth. Part 2. On plant anatomy.

1933

1312. Jackson, Chester W. The seed factor in the management of ranges.

1934

1313. Day, Ralph K. The natural regeneration of farm woods following the exclusion of livestock.

1938

1314. Warg, Samuel Allen. Life history and economic studies on *Bromus tectorum*.  
1315. Wilkie, Stephen C. Mechanical properties of the inland empire Douglas fir.

1948

1316. Boe, Kenneth. Is Douglas fir replacing ponderosa pine in the cut-over stands in western Montana?  
1317. Casebeer, Robert Lee. A study of the food habits of the mountain goat *Oreamnos americanus missoulae* in western Montana.  
1318. Schmautz, Jack Englebert. A study of shelterbelts in eastern Montana.  
1319. Walbridge, Thomas Alexander, Jr. A survey of Christmas tree production on private lands in western Montana.

1949

1320. Alexander, Melvin Tracy. The effect of freight rates on the competitive position of the Montana Christmas tree industry.

1321. Haines, A. L. An investigation of photographic methods of mapping areas visible from a fire patrol aircraft flying a predetermined route.
1322. Jansson, John Robert. A survey of old growth Douglas fir stands in the Big Belt Mountains of Montana.
1323. Polk, Randolph Brooks. A survey of composition trends in cut-over stands of the larch-Douglas fir cover type of western Montana.

## 1950

1324. Foreman, Byron L. Lodgepole pine and the potential pulp industry in Montana.
1325. Stratton, Homer W. A study of the suitability of lodgepole pine *Pinus contorta* Dougl. as a Christmas tree.
1326. Walker, William R. Western larch: weed or timber species?

## 1951

1327. Amman, Eric M. Use of wood waste as fuel in western Montana.
1328. Asher, Lowell Otis. A study of the winter food habits of deer in the Rattlesnake Creek drainage.
1329. Carter, Richard Laverne. An environmental analysis of winter game range in western Montana.
1330. Huey, Ben Meyer. Problems of timber products procurement during World War II, 1941-1945.

## 1952

1331. Hungerford, Charles Roger. The food consumption and weight response of elk *Cervus canadensis nelsoni* under winter conditions.
1332. Navratil, Theodore William. Ponderosa pine versus Douglas fir re-production on the cut-over lands of the Lubrecht Experimental Forest in Montana.
1333. On, Danny. 2, 3, 5-triphenyl tetrazolium chloride as a viability indicator of certain coniferous seeds.

## UNIVERSITY OF NEW HAMPSHIRE

## 1917

1334. Gamash, Albert W. A study of the forest fire hazard and liability of Durham, N. H.

## 1931

1335. Walker, C. E. Land survey of the town of Durham, N. H.

STATE UNIVERSITY OF NEW YORK COLLEGE OF  
FORESTRY, SYRACUSE

## 1914

1336. Myers, F. B. Damping-off of seedlings.

## 1916

1337. Cless, G. H. Jr. Report on public schools in relation to state forest planting.

1338. Nix, L. A. A study of the box making industry in Syracuse, New York.  
1339. Sweet, C. V. Role of *Schizophyllum commune* Fr. in the destruction of woody stems.

## 1917

1340. MacNab, A. J. Jr. A study of the insects attacking the white pine *Pinus strobus* as found in Onondaga and St. Lawrence Counties, N.Y.  
1341. Stage, H. H. A study of the insect fauna of the American larch *Larix laricina* as found in Erie Co., New York.  
1342. Van Horn, C. W. The history and development of the garden city movement.

## 1918

- 1343.\* Rhoads, A. S. The biology of *Polyporus parganemus* Fries.

## 1920

1344. Cuno, J. B. A study of the anatomical features including fiber lengths of yellow birch wood *Betula lutea* Michx.  
1345. De Smidt, W. J. Studies of the distribution and volume of the wood rays in slippery elm *Ulmus fulva* Michx.  
1346. Lodewick, J. E. Some aspects of the decay of wood pulp.

## 1921

1347. Myer, J. E. Ray volumes of the commercial woods of the United States and their significance.

## 1922

1348. Cline, A. C. Sample plot studies of immature conifers. Rockwell Springs Experiment Station.  
1349. Foster, C. H. A key to the woody seed plants of Onondaga County.  
1350. Gast, P. R. Observations on physiology of *Polystictus versicolor* Fries.  
1351. Meloney, H. M. A conspectus of the important commercial timbers of the world exclusive of North America.  
1352. Munding, F. G. The life-history of the two nabids—*Nabis roseipennis* Reut and *Nabis rufusculus* Reut.

## 1923

1353. French, G. E. The effect of the internal organization of the North American hardwoods upon their more important mechanical properties.

## 1924

1354. Dean, D. C. The wholesale distribution of lumber with especial reference to New York State.  
1355. Gemmer, E. W. Effect of some climatic factors upon the growth of forest trees on burned over lands.  
1356. Kassing, B. L. An investigation of certain factors influencing rosin sizing.  
1357. Mabesa, Calixto. Studies on the steaming of lumber.  
1358. Raupach, C. V. A morphological study of upland and lowland woods.

\* Doctoral dissertation.

## 1925

1359. Beal, J. A. The development of the proventriculus of *Pityogenes hopkinsi* Swaine.  
1360. Eliason, E. J. The comparative virulence of certain strains of *Pythium debaryanum* in direct inoculations of coniferous seedlings.  
1361. Gibson, J. N. A study of the Fayetteville-Kirkville, N. Y. Green Lakes.  
1362. Kang, M. H. The application of the deVains process to the pulping of birch wood . . .  
1363. Mac Aloney, H. J. Preliminary observations on the control of the white pine weevil injury by forest management.  
1364. Pammel, H. E. The recreational resources of the Fulton Chain region.  
1365. Peterson, F. C. Investigations on the preparation of cellobiose from cellobiose octa-acetate.  
1366. Titus, R. T. Southern yellow pine and Douglas fir lumber.  
1367. Van Giesen, C. L. Growth study on coniferous plantations at Great Bear Springs.

## 1926

1368. Harlow, W. M. The effect of site on the structure and growth of white cedar.  
1369.\* Hirt, R. R. The biology of *Polyporus gilvus* (Schw.) Fries.  
1370. Jahn, E. C. The isolation, analysis, and chemistry of cellulose from red spruce.  
1371. Johnson, R. A. A study of the natural history of the ruffed grouse of Syracuse.  
1372. Lincoln, W. J. "Pines for pattern" with especial reference to their competition and uses in states of New York and Pennsylvania.  
1373. MacAndrews, A. H. The biology of the southern pine beetle.  
1374. Percival, W. C. The extent of decay in sound hardwoods caused by *Coprinus micaceus* Fries.

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1375. Bell, C. C. The kiln drying of green maple last blocks.  
1376. De Leon, Donald. A preliminary study of the digestive tract of *Rhagium lineatum* Oliv.  
1377. Garin, A. N. Studies on steam consumption in drying lumber.  
1378. Hayward, P. A. A comparative study of the varieties of *Liquidambar styraciflua*.  
1379.\* Lodewick, J. E. Seasonal activity of the cambium in some northeastern trees.  
1380. Morgan, H. W. The effect of hydrogen ion concentration on the hydration of cellulose.  
1381. Wheeler, G. S. Woodlot conditions in Onondaga County, N.Y.

## 1928

1382. Anderson, O. C. The pathology of white pine *Pinus strobus*.  
1383. Balch, R. E. The influence of the southern pine beetle on forest composition in western North Carolina.  
1384. Harrar, E. S. A diagnostic study of the phloem of some North-eastern forest trees.  
1385. Neubrech, W. L. A study of retail lumber merchandising.

\* Doctoral dissertation.

- 1386.\* Rees, L. W. Growth studies in *Picea rubra* Link.  
1387. Varney, G. L. Soil temperature studies at the Rockwell Springs Experiment Station.

## 1929

1388. Barry, E. F. Field study of moisture content and shrinkage of structural timbers used in house building in Syracuse.  
1389. Chowdhury, K. A. An anatomical study of the wood of *Larix eurolepis* Henry (*Larix europaea* DC  $\times$  *Larix leptolepis* Hort.)  
1390.\* Mac Aloney, H. J. The white pine weevil.  
1391. Panshin, A. J. Structure of the wood of the Philippine mangrove trees.

## 1930

1392. Bedard, W. D. A preliminary study of the Coleoptera attacking white fir *Abies concolor*.  
1393. Briegleb, P. A. Form-class volume tables for the Adirondack red spruce.  
1394.\* Myer, J. E. The structure and strength of four North American woods as influenced by range, habitat, and position in the tree.  
1395. Wagner, S. R. The modern airport.

## 1931

1396. Balizet, C. E. The management plan of the Pack Demonstration Forest at Warrensburg, N. Y. for the period 1930 to 1940.  
1397. Bishop, A. H. Effect of moisture per cent on adsorption and penetration of creosote in beech.  
1398. Carpenter, R. D. Ice damage in coniferous plantations in New York State.  
1399. Cheng, F. H. Modern nursery practice and a study of the growth of seedlings and transplants for the first four years as found in the nursery at Rockwell Springs.  
1400. Cockrell, R. A. A study of the screw-holding properties of wood.  
1401. Friedman, P. F. The determination of the "correct species factor" for application of the Gevorkiantz formula in determining the growth percent of beech, yellow birch, hard maple, soft maple, red spruce, balsam fir, and eastern hemlock in the mixed forests of the western Adirondacks.  
1402. George, H. O. The effect of low temperature on the strength of wood.  
1403. Kline, L. V. Anatomical description of twenty-five North American woods.  
1404. Maine, F. L. The shrinkage of commercial sized sawn beech boards under kiln drying conditions.  
1405. Mather, W. G. Studies on the spruce budworm *Cacoecia fumiferana* (Clem.) in British Columbia.  
1406. Nims, C. E. Studies of bark thickness of northeastern timber trees.  
1407.\* Panshin, A. J. Timbers of the west coast of Africa.  
1408. Sammi, J. C. Yield predictions for pulpwood following cutting for New York State.  
1409. Thomas D. R. Effect of preliminary air pressure on adsorption and penetration of coal tar creosote in beech.

\* Doctoral dissertation.

## 1932

1410. Anthony, James H. Forest roads with special reference to their significance in the handling of forest properties.
1411. Arnold, F. H. The influence of spacing upon branch and knot development in pure plantations of white, red and Scotch pine.
1412. Ashbaugh, L. J. The forest tax problem in New York.
1413. Batterson, L. J. The determination of the best preliminary humidity treatment to use in kiln drying oak which has been surface checked in air seasoning.
1414. Flynn, H. F. The purchase of public forest lands.
1415. Fortin, J. B. Some of the silvicultural aspects of pure versus mixed planting.
1416. Gustin, H. E. Effect of moisture content upon adsorption and penetration of creosote in beech at moisture contents ranging from 25% to 8%.
1417. Hamer, P. L. The water soluble polysaccharide of eastern larch *Larix laricina* (DuRoi) Koch.
1418. Harris, H. G. Studies on the *Strumella* canker of oak.
1419. Isenberg, I. H. Microchemical studies on the tyloses of some hardwood species.
1420. Marco, H. F. The identification of the spruces *Picea* by needle structure.
1421. Maughan, K. O. Recreational development in the National forests.
1422. Penick, N. J. Douglas fir plywood . . . .
1423. Radway, E. B. Germination of yellow poplar *Liriodendron tulipifera* Linn. and its propagation by cuttings.

## 1933

1424. Haugberg, A. A. The per capita consumption of wood as affected by forest resources.
1425. Hawkins, J. H. Forest boundaries, their establishment and maintenance.
1426. Meade, F. M. A silvicultural study of the seed of basswood *Tilia glabra* Vent. with special reference to hastening the germination.
1427. Palmer, S. H. The income from public forests.
- 1428.\* Percival, W. C. A contribution to the biology of *Fomes pini* (Thore) Lloyd (*Trametes pini* (Thore) Fries).
1429. Sanford, A. R. Aerial photography; its use and application to forest management.
1430. Welte, C. T. The chlorination pulping of spruce wood.

## 1934

1431. Anderson, Wm. Forest working plan for Camp Woodland at Constantia, N. Y.
1432. Bloom, C. W. The relation of telephone communication to forest properties.
1433. Bower, R. F. A mathematical expression of form of red spruce as applied to volume table construction.
1434. Fegel, A. C. The creosote treatment of some New York State woods for use as fence posts.
1435. Hansen, W. L. A recreational development plan for Logan Canyon, Utah.
1436. Hopp, Henry. The non-pathogenic discoloration of wood.

\* Doctoral dissertation.



1437. Kring, J. S. A recently discovered bark disease of white pine *Pinus strobus* Linnaeus.  
1438. McKean, H. B. Motor truck transportation of logs in central New York.  
1439. Maughan, Matthew. The water soluble polysaccharide of European larch *Larix decidua* Mill.  
1440. Rogers, R. H. Centralized management and marketing applied to woodlands of the Cooperstown forest unit.  
1441. Stark, E. W. Diagnostic study of the woods of some of the major shrubs and smaller trees of northeastern United States.

## 1935

- 1442.\* Beal, J. A. Insect increase in ponderosa pine *Pinus ponderosa* Lawson slash in the Pacific Northwest as influenced by certain environmental factors.  
1443. Grantham, J. B. A study of the comparative fire resistance of a number of untreated and treated commercial woods.  
1444.\* Harrar, E. S. The microscopy and identification of 100 commercial timbers of Queensland, Australia.  
1445. Hermsted, J. B. The merchandising of western red cedar.  
1446. Herrick, A. M. The relation of forest signs and posters to forest properties.  
1447. O'Neil, F. W. The bleaching of kraft pulp.  
1448. Pearce, John. The influence of browsing by white-tailed deer.... on western Adirondack forests....  
1449. Reynolds, C. E. A study of the deterioration of mull.  
1450. Robinson, R. R. A study of frost heaving with special reference to forest planting.  
1451. Wangaard, F. F. The strength and behavior of mortise and tenon joints at different moisture contents.

## 1936

- 1452.\* Barry, A. J. The preparation and study of the benzoates and propionates of the water soluble polysaccharides of eastern, western, and European larches.  
1453.\* Barry, A. J. X-ray studies of the interaction of cellulose and liquid ammonia.  
1454. Falkenan, G. E. A study of the wood-preserving industry.  
1455. Hammarstrom, Carl. A management plan for the Archer and Anna Huntington Wild Life Forest Station at Newcomb, N. Y.  
1456.\* Hopp, Henry. The significance of the discolored zones associated with decay of wood.  
1457. Kilgore, W. E. Needle structure of *Pseudotsuga* Carr. species and some varieties, and its value in classification.  
1458. Koon, C. M. The influence of hydrogen ion concentration in the bleaching of wood pulp.  
1459. Kowal, R. J. Biology and control of *Brachyrhinus ovatus* (Linn.) on coniferous nursery stock.  
1460. McCulloch, W. F. Development of the post-glacial forest in central New York.  
1461.\* Minckler, L. S. Transpiration and leaf anatomy of forest trees.  
1462.\* Peterson, F. C. The water soluble polysaccharide of western larch.

\* Doctoral dissertation.

1463. Sydansk, Raymond. Some phases of the forest ecology of the Clark Reservation State Park.  
1464. Wolff, A. E. A study of the American lumber trade with Central America.  
1465. Zimmerman, Jack. The natural restocking of Adirondack old fields.

## 1937

- 1466.\* Anderson, O. C. The resistance of the Viking currant to *Cronartium ribicola* Fischer.  
1467. Bennett, W. H. The ecology of the pine needle miner *Paralechia pinifoliella* Chambers.  
1468. Carlberg, Herbert. A survey of the diseases of trees in the Morning-side cemetery and a section of Onondaga Park.  
1469. Cron, Robert. A management plan for the Huntington Wild Life Forest Station.  
1470. Deffler, S. E. Black cherry; characteristics, germination, growth, and yield.  
1471. Egan, J. A. In-service training in forestry.  
1472. Fowler, R. M. The merchandising of Idaho white pine.  
1473. Kropscott, E. L. A study of reactions of lignin in liquid ammonia.  
1474. Lewis, J. B. Submarginal agricultural land problems with special reference to the State of New York.  
1475. Mosher, M. M. A study of boards and commissions in state forest administration.  
1476. Rich, J. H. A master forest working plan for the Sawmill River watershed.  
1477. Rullison, D. E. A study of the status of farm woodlands in Onondaga County, New York.  
1478. Stevens, V. C. A study of the merchandising methods of the retail lumber industry at Syracuse, N. Y.

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1479. Bliss, C. C. A master plan for a state park.  
1480. Bock, M. J. The merchandising of southern yellow pine.  
1481. Brownell, J. K. A study of the comparison of climatic differences with relation to the selection of tree seed sources for reforestation.  
1482. Ceder, J. W. The wood and fibre box.  
1483. Compton, K. C. The effect of refined coal tar as a diluting agent for coal tar creosote upon the absorption and penetration in beech.  
1484. Craig, J. W. Rooting response of stem cuttings of black and shipmast locust.  
1485. Davis, William. The effect of hydrogen ion concentration on the chemical properties of bleached sulfite pulp.  
1486. Donohue, R. F. Ecological studies of *Thuja occidentalis* L. in central New York State.  
1487.\* Fegel, A. C. A comparison of the mechanical and physical properties and the structural features of root-, stem-, and branch-wood.  
1488. Freeman, R. D. Proximate analysis of the heartwood and sapwood of some American hardwoods.  
1489. Gruschow, G. F. An ecological study of a bog complex near Syracuse.  
1490. Gurvitch, J. F. Coloration of wood by exposure to gases.

\* Doctoral dissertation.

1491. Gysel, L. W. Vegetation studies in the Clark Reservation State Park, N. Y., and the application of Cajander's forest type study.
1492. Kin, Myron. The manufacture of brown mechanical pulp from hardwoods.
1493. MacCammon, G. W. Bracken fern: its silvicultural aspects in the north-eastern forest.
1494. Mason, C. R. Recreational planning for the state-owned forest lands of New York.
1495. Phillips, J. E. Silvicultural considerations in the management of the Tioga County cooperative forest unit.
1496. Roger, E. J. The growth of red pine in plantation *Pinus resinosa* in the Ranger School forest.
1497. Sheldon, T. R. A study of the log scaling practice in New York State.
1498. Turner, G. T. Influence of grazing on development of soil and vegetation near Syracuse, New York.
1499. Weitzman, Sidney. Seasonal variation in the cell-sap concentration of exotic conifers in central New York State.

## 1939

1500. Bowen, G. R. The selection, care and culture of shade and ornamental trees.
1501. Day, G. M. Examples of the influence of coniferous plantations on topsoil.
1502. Dennett, F. L. The effect of particle size on the efficiency of a rosin suspension as measured by the retention of rosin.
1503. de Zeeuw, C. H. Histology of periderm formation in certain north-eastern trees.
1504. Holmberg, C. V. Water retention of beaten and gelatinized pulp.
1505. Johnson, V. W. A study of reporting systems in American forestry.
1506. Ladd, J. N. A study of the effectiveness of vapor barriers placed directly behind the plaster of a humidified house.
1507. Levy, John. Effect of mechanical gelatinization on the solubility of wood in cuprammonium solution.
1508. Macon, J. W. A study of the rate of diameter growth as indicated by the external characteristics of white pine trees.
1509. Neel, W. F. A study of state forest administration in the South.
1510. Rise, C. H., Jr. A study of checking and moisture distribution of green beech squares during kiln drying.
1511. Solin, Lawrence. A study of farm woodland cooperatives in the United States.
- 1512.\* Wangaard, F. F. The transverse heat conductivity of wood.
1513. Williams, C. E. A study of the rooting of stem cuttings.
- 1514.\* Williams, Simon. Secondary xylary tissues of oaks.

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1515. Casanova, F. E. The effect of deer browsing on forest regeneration in the central Adirondacks with special reference to balsam fir.
1516. Devet, D. D. Heat conductivity of bark in certain selected species.
1517. Fowler, W. F. Microchemical aspects of the relationship between lignin content and the strength of fiber boards.

\* Doctoral dissertation.

1518. Heady, H. F. Annotated list of the ferns and flowering plants of the Archer and Anna Huntington Wildlife Forest Station, Newcomb, New York.
1519. Hyde, J. A. Rooting response of blue spruce stem cuttings to several growth-regulating substances.
1520. Kuhns, L. H. A comparative study of the flame penetration in plywood and solid wood.
1521. Lischer, W. J. A study of tree value as indicated by external characteristics of eastern white pine.
1522. Lyon, E. L. Seasonal variations of relative humidity.
1523. Matchuk, Konstantene. The drainage resistance of groundwood pulps.
1524. Morris, R. F. Frass-drop measurement as an index of the larval population and feeding activity of the European spruce sawfly.
1525. Randel, W. C. Behavior of plywood under controlled conditions of temperature and humidity.
1526. Speers, C. F. The pine spittle bug.
1527. Studený, John. The suitability of red pine . . . for the manufacture of sulphite pulp.
1528. Thatcher, D. M. A development plan for the timber resources of the Ammonoosuc working circle of the White Mountain National Forest in New Hampshire.
1529. Walters, C. S. Adirondack Lake shore vegetation. I. Deer Island and Big Wolf Island permanent quadrats.
1530. Wilcox, H. E. The spectrographic analysis of white pine *Pinus strobus* L.
1531. Woodruff, J. B. The relative durability of heartwood in respect to position in the cross section of a tree.

## 1941

1532. Bloom, Philip. The determination of cellulose by monoethanolamine digestion.
- 1533.\* Coppick, Sydney. Plasticization of wood by nitration.
- 1534.\* Davis, William. Preparation and properties of hydroxyethyl ethers of cellulose.
- 1535.\* Davis, William. X-ray studies of the action of amines on cellulose.
1536. Deery, H. A. Equilibrium moisture content of salt-treated wood.
1537. Dohne, W. P. An investigation of rosin size precipitation and its effect on the sizing and strength properties of paper.
1538. Fitzwater, W. D., Jr. The red squirrel: territorialism, activity, census methods.
1539. Graves, P. F. Morale in public forestry organization in the United States.
1540. Jaenicke, R. W. A silvicultural working plan for the Pack Demonstration Forest 1940-1950.
1541. Macdonald, M. D. The effect of urea salt treatment of one-inch green beech on the establishment of moisture gradients during kiln drying.
1542. Owens, R. E. Maintenance and operation costs of park areas.
1543. Ryan, D. E. Forestry public relations in New England.
1544. Sampert, H. C. Forest administration on the Oregon and California revested lands.
1545. Toole, A. D. Improvement cutting in young stands of northern hardwoods.
1546. Wilcox, A. T. Organized camping in New York State.

\* Doctoral dissertation.

1547. Zabel, R. A. A study of fungi associated with sterile conks on hardwoods.

## 1942

1548. Brandon, C. E. A study of the cuprammonium viscosity of cellulose using the Hoeppler viscosimeter.  
1549. Cain, R. L. Adirondack Lake shore vegetation. II. Winter killing of beech.  
1550. Carolin, V. M., Jr. The biology of *Epinotia nanana* (Tr.) a spruce needle-miner.  
1551. Marra, A. A. Characteristics of tension wood in hard maple *Acer saccharum* Marsh.  
1552. Marra, G. G. An analysis of the factors responsible for raised grain on the wood of oak.  
1553. Robinson, D. D. Relation of ocean-surface temperatures to fire hazard; an examination of ocean-surface temperatures of the Pacific Ocean and the Gulf of Mexico in relation to seasonal depression of relative humidity.  
1554. Salter, R. B. A study of present log grading systems with an analysis of and recommended standards for grading hard maple logs in central New York.  
1555. Stanton, B. T. Aerial photographs and photogrammetry in forestry and allied fields.

## 1943

1556. Barick, Frank B. Edge effect of certain Adirondack forest types.  
1557. Christophersen, Edward W. Fractionation and analysis of nitrated lignin from nitrowood.  
1558. Lloyd, William B. The determination during the winter months of moisture transfer through the framewalls of houses due to the maintenance of a high humidity.  
1559. Maxwell, J. W. Shear strength of glue joints as affected by wood surfaces and pressures.  
1560. Skoggard, Carol O. The sulphite pulping of white pine.  
1561. Stilbert, Elmer K. The effect of starch on the sizing and strength properties of paper.

## 1944

1562. Kitazawa, George. Relaxation of wood under constant strain.  
1563. Tasker, C. W. The manufacture of viscose pulp from sugar maple *Acer saccharum* Marshall.

## 1945

1564. Feola, J. A. The suitability of yellow birch *Betula lutea* Michaux for glassine paper manufacture.

## 1946

1565. Fischbein, I. W. Report on a supersonic method for the measurement of the velocity of sound in wood. (Work incomplete)  
1566. Hawrylow, Martin. Shear strength of urea-formaldehyde glue joints of Sitka spruce wood.

## 1947

1567. Bergendahl, C. J. Sizing properties of the synthetic resins.  
1568. Buckley, J. L. A comparative ecological study of three hydrophytic areas on the Huntington Forest.  
1569. Casey, J. P. A study of penetration of starch adhesive in a coating mixture into base paper.  
1570. Dean, H. J. A wildlife management program for Camp Woodland.  
1571. Husch, Bertram. A comparison between a ground and an aerial photogrammetric method of timber surveying.  
1572. Oliner, A. W. The properties of flexible impregnated sheets.  
1573. Price, A. W. Hardwood lumber inspection; the standard grading rules, inspection of kiln-dried stock, gross identification of hardwood lumber.  
1574. Samson, N. T. Tree increment in relation to thinning.  
1575. Schwenkler, J. J. Reactions of pentosans with formaldehyde.  
1576. Shapiro, Jacob. Life history and ecology of the porcupine *Erethizon dorsatum dorsatum* (Linn.) on the Archer and Anna Huntington Wildlife Forest Experiment Station, Newcomb, N.Y.  
1577. Shaw, S. P. The ecology of an artificial Adirondack pond.  
1578. Steinhoff, H. W. White-tailed deer census methods.

## 1948

1579. Fedkiw, John. Transfer—a training technique in administration.  
1580. Holstein, A. E. Properties of pulp plastics containing various high polymers.  
1581. Hoyt, G. J. A study of accelerated growth of red spruce on the Huntington Forest.  
1582. Lency, Lawrence. A study of surface-active agents and detergents for softening wood preparatory to sectioning.  
1583. Schneler, R. L. A correlation of fox food habits with foods available on the Huntington Forest.  
1584. Sears, B. G. Summer homes: a discussion of small summer homes in woodland areas.  
1585.\* Smith, R. B. The role of mechanics in the evolution of the herbaceous plant stem.  
1586. Wolf, R. E. A partial survey of forest legislation in New York State.

## 1949

- 1587.\* Alexander, M. M. The development of the muskrat on the Montezuma National Wildlife Refuge.  
1588.\* Anderson, E. A. Tracheid-length variation in conifers as related to distance from pith.  
1589.\* Balch, R. E. Studies of *Adelges piceae* (Ratz.) and its effect on *Abies balsamea* (L.) Mill.  
1590. Beach, F. E. Inventory of the Rich Lake marsh, Huntington Forest, Newcomb, N. Y.  
1591. Bergman, S. I. A statistical analysis of the lengths of fibers and vessel segments of forty-nine hardwoods indigenous to the United States.  
1592. Colgan, R. S. Aerial volume table for white pine in central New York.

\* Doctoral dissertation.

- 1593.\* Coppel, H. C. The role of parasitoids and predators in the control of the spruce budworm *Archips fumiferana* (Clem.) in British Columbia.
1594. Dence, C. W. Chemical and physical changes in yellow birch and white pine by semichemical pulping and bleaching treatments.
- 1595.\* de Zeeuw, Carl. Sprout and seed origin as influences on the strength properties of wood from the mature stems of basswood.
1596. Gremler, Enrique. Suitability of *Eucalyptus globulus* for dissolving pulp.
1597. Joglekar, M. A. The suitability of bamboo as a raw material for the manufacture of dissolving pulp.
- 1598.\* Kling, J. B. Cooperative forest fire control; Policy determination and administration in the Clarke-McNary grant-in-aid program.
- 1599.\* Morrow, R. R., Jr. Periodicity and growth of sugar maple surface layer roots on two experimental areas.
1600. Phillips, J. E. Study of the properties and structure of pigment coatings.
1601. Rønning, O. K. The influence of temperature during the beating process.
1602. Sanyer, Necmi. Action of neutral sulfite cooking liquor on the lignin of poplar *Populus tremuloides* L.
1603. Söderland, U. G. A study of water soluble resins in clay-starch coatings for paper.
1604. Taormina, A. S. Basic reconnaissance of the habitats and vertebrate fauna of the Three Rivers game management area.

## 1950

1605. Chen, C. L. Anatomical structure and identification of thirty Chinese woods.
1606. Church, S. E. Ethyl esters of carboxymethyl cellulose and celluronic acid.
1607. Coha, A. P. The chain transfer constants of some model compounds related to cellulose derivatives.
- 1608.\* Czabator, F. J. The resupinate Hydnaceae of New York and their relation to the decay of wood.
1609. Godin, Gilbert. An investigation of leaf morphology in the genus *Tsuga* Carr.
1610. Hamilton, L. S. An economic analysis of the cutting of sugar maple *Acer saccharum* Marsh. in small woodlots in the vicinity of Syracuse.
- 1611.\* Richards, D. B. Progressive changes in the physical properties of wood with advancing decay.
1612. Samler, O. B. The determination of minimum curing times in edge gluing core stock with radio frequency power at several radio frequency voltages.
1613. Strong, D. E. Determination of the growth of northern hardwoods on the Huntington Forest.
- 1614.\* Wylie, A. E. A statistical study of small dimension yield from hard maple *Acer saccharum* Marsh.
1615. Yang, H-C. The influence of kraft pulp properties on wet-strength development by urea-formaldehyde resin.

## 1951

1616. Dahms, W. G. Intensity of cut as related to ponderosa pine management; A statistical approach to the problem of isolating cutting effect.

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\* Doctoral dissertation.

1617. Jen, Yun. The bleaching of coniferous mechanical pulp with chlorine compounds.  
1618. Kyi, M. B. Ammonium sulphide pulping of bamboo.  
1619. Marander, M. P. Studies on the beater addition of phenol-formaldehyde resins.  
1620. Meyer, E. H. The determination of the reactivity ratios of isoprene and alpha vinylthiophene.  
1621. Prange, G. F. Laminated rifle stocks; An evaluation of laminated construction considering variation in center-of-impact and economy of manufacture.  
1622. Ter Bush, F. A. Southern pine prices and business cycles, 1904-1941.  
1623. Van Etten, R. C. The ecology and population distribution of the eastern chipmunk *Tamias striatus lysteri* on the Huntington Forest.  
1624. Walker, G. F. Aerial photogrammetry as an aid in the performance of some functions of county governments.  
1625. Willard, E. B. Hosteling, U. S. A.

## 1952

1626. Bray, Ira L. An analysis of summer recreational use of the Adirondack Forest Preserve with special emphasis on campsites and trails.  
1627.\* Blenis, Henry. The cost of bulldozed woods road construction as a part of forest management.  
1628. Christman, R. Don. Reforestation of bracken fern areas.  
1629. Eldridge, David Crocker. An economic survey of the wildlife of Lewis County, New York.  
1630.\* Farrell, John. A survey of professional attitudes toward public forest regulation in the United States.  
1631. Ferree, Miles Joseph. A method of estimating timber volumes from aerial photographs by measuring tree crown images.  
1632.\* Holmberg, Carl Vernon. Studies of formaldehyde-cellulose.  
1633. Hoyle, Robert J., Jr. A study of heat recovery from the vented air of dry kilns.  
1634. Hughes, William George. An attitude survey of the employees of the Oregon State Forestry Department.  
1635.\* Larson, Charles Conrad. Government and the small forest holding: a study of the administration of the governmental program for farm and small nonfarm woodland owners.  
1636. Lorey, Frank William. An investigation of methods for dimensionally stabilizing paper.  
1637. Nash, Andrew Joseph. Construction and application of air survey volume tables.  
1638. Patric, Earl Francis. A beaver management program for the Huntington Forest.  
1639. Pentoney, Richard E. Transverse dimensional stability of Douglas fir springwood and summerwood.  
1640. Rosasco, Edwin Mark. A preliminary study on the effects of sodium arsenite, used as a chemical debarking agent, upon wildlife and wildlife environments.  
1641. Sabin, Walton B. An evaluation of the ecological niches of certain permanent resident birds on the Three Rivers Game Management Area.

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\* Doctoral dissertation.



- 1642.\* Samson, Nelson Titus. The source, character and quality of the woods labor force in forestry operations in Herkimer County, N.Y., in 1951.
1643. Sirvin, Michel. The chemical properties of balsa.
- 1644.\* Stark, Eric W. Wood anatomy of the Juglandaceae, Betulaceae, Magnoliaceae and Aceraceae indigenous to the United States.
1645. Trimm, H. Wayne. Methods for the collection, preservation and storage of certain animal signs.

NORTH CAROLINA STATE COLLEGE OF AGRICULTURE  
AND ENGINEERING OF THE UNIVERSITY  
OF NORTH CAROLINA

1947

1646. Hofmann, Julian George. Studies to determine the effect of *Fomes pini* on *Pinus serotina* in relation to fiber used in the manufacture of wood pulp.
1647. Pruitt, Austin Agnew. A study of the effects of soils, water table, and drainage on the height growth of slash and loblolly pine plantations on the Hofmann Forest.

1951

1648. Barber, John Clark. The control of various species of hardwood brush with 2,4-D and 2,4,5-T applied to freshly cut stumps during the dormant season.
1649. Barefoot, Aldos Cortez, Jr. Analysis of mis-manufacture by small sawmills as revealed by statistical quality control techniques.
1650. Boyce, Steve Gaddy. Plant succession in thinned loblolly pine stands of a Piedmont county.
1651. Carter, Don Eugene. Extraction of tannin from pine bark.
1652. Dellinger, Henry Clinton. Bark application of silvicides in hardwood control.
1653. Ginn, Thomas Joseph. Application of statistical quality control techniques to furniture machining operations.
1654. Stecher, Donald Adolph. The application of statistical quality control techniques to small sawmill operations.
1655. Stains, Howard James. An economic survey of North Carolina's wildlife resources.

1952

1656. Basse, John David. Initial influence of fire on the regeneration of pond pine.
1657. Moore, Raymond Anderson. Some factors which influence the initial moisture content of yellow poplar veneer.
1658. Whippie, Theodore George. The drying properties of cativo *Prioria copaifera* Gris. veneer.

\* Doctoral dissertation.

## OREGON STATE COLLEGE

## 1928

1659. Baker, William Jennings. The utilization of tanbark oak.  
1660. Fox, Charles White. The kiln drying of Oregon soft-woods.

## 1929

1661. Brandeberry, Jason Kermit. Economic factors affecting lumber price in the Pacific Northwest.

## 1930

1662. Voorhies, Glenn. Kiln drying problems in the Douglas fir region.  
1663. Wilson, Sinclair Albert. Permanency in Oregon's forest industry.

## 1931

1664. Kearns, Richard S. The relation of air circulation to kiln drying of lumber.  
1665. McDaniel, Vern E. Nursery practice on the Oregon forestry nursery.  
1666. Miller, Vondis Elbert. A management plan for the Peavy Arboretum and school forest.

## 1932

1667. Evenden, Robert Murray. A study of constant humidity and temperature schedules in the drying of Douglas fir.  
1668. Kimmey, James William. A pathological survey of the Peavy Arboretum.

## 1933

1669. Fowells, Harry Ardell. A study and summary of the investigational activities on the McDonald Forest with recommendations.  
1670. Lowden, Merle Stephen. Use of the equilibrium moisture content principle in the kiln drying of Douglas fir.  
1671. Mielke, James Leroy. Relation of *Ribes lacustre* to management of western white pine.

## 1934

1672. Hunt, Lee Oscar. Ecological anatomy of woody plants with special reference to leaf variations.  
1673. Nelson, Everal Elmer. A method for predicting the drying times for Douglas fir heartwood.  
1674. Parker, John Raymond. The grasslands of North America.  
1675. Tiedemann, Henry. The establishment of Douglas fir reproduction in relation to certain natural environmental factors.

## 1936

1676. Cronemiller, Lynn F. State forestry in Oregon.  
1677. Evenden, James Cawston. Effects of defoliation by the pine butterfly *Neophasia menapia* Felder on the basal increment of ponderosa pine.  
1678. Feiss, Sherman Hinton. The application of stand improvement measures in Douglas fir and ponderosa pine types of the Pacific Coast.  
1679. Schroeder, George Harwood and Thomas, G. M. The milling practices and silvicultural factors affecting forestry in Benton County, Oregon.

## 1937

1680. Lammi, Joe Oscar. Article X of the lumber code in the Douglas fir region.  
1681. Spaur, George. A study of the pulp and paper industry in Oregon in regard to land use.

## 1939

1682. Blackerby, Alva. A method of rating forest service employees.  
1683. Matthews, Donald Navarre. What can research contribute to the prevention of forest fires?  
1684. Ponce, Guillermo. A study of motor truck log transportation in the Douglas fir region and its application to the Philippine logging industry.  
1685. Wilson, Sinclair Albert. Mapping the status of tax-delinquent private lands and the location of public lands in the rural areas of Oregon.

## 1940

1686. Ash, Brittain Henshaw. Administration of a ranger district personnel.  
1687. Drummond, John Paul. The possibilities of farm forest cooperatives in the Willamette Valley.  
1688. Longwood, Franklin Russell. A land use history of Benton County, Oregon.  
1689. Thomas, Harold Alexander. An in-service training program for the State Forestry Department.  
1690. Voorhies, Glenn. Oil tar creosote for wood preservation.

## 1941

1691. Anderson, Wallace Edward. Farm forestry extension and its application in Oregon.  
1692. Baker, Lyle Albert. Timber growing versus grazing on the nonforested areas of the McDonald Forest.  
1693. Bond, William Merrill. A forest fire prevention program for Pacific Northwest forests.  
1694. Caskey, Frank Edward. A study of the nature of benzyl alcohol lignin.  
1695. Gurley, Wayne Ellsworth. A training plan for short-term forest guards on furlough status.  
1696. Newberg, Arthur Joel. A plan for the marketing of housing units.  
1697. Orell, Bernard Leo. An educational program for a standby forest fire suppression crew.  
1698. Zach, Lawrence William. The effect of the synthetic plant hormones in the propagation of forest trees.

## 1942

1699. Dunn, Lester Clayton. The role of subsidiary forest crops in Douglas fir forests.  
1700. McKeown, Eugene. Recreational forestry as a career.  
1701. Rumckel, William Justus. A study of cuprammonium hydroxide and its application to the cellulose viscosity test of the pulp and paper industry.  
1702. Wikstrom, John H. A method of appraising second growth Douglas fir in western Oregon.

## 1943

1703. Bailey, Warren Hutchinson. Forest education projects in secondary schools with recommendations for Grants Pass.

1704. Ebeling, Dick Winfield. The effect of high temperatures on structural timbers.  
1705. Ezell, Albert Iven. Preparation and properties of the acetyl, benzoyl and methyl derivatives of soda lignin.  
1706. Southworth, Hugh Alexander. The mechanism of the sulfonation of lignin as revealed by its reaction with methyl hypochlorite.

## 1944

1707. Englert, Robert Dixon. A study of the chemical utilization of Scholler lignin through chemical modification by reaction with certain ammonia type nitrogen compounds.  
1708. Hawkes, Carl Lough. Extension methods for a county forester.  
1709. Livezey, Robert Lee. A comparative vertebrate ecology of typical and atypical oak areas.  
1710. Pittam, William. The extraction of tannin from waste western hemlock bark.  
1711. Rieck, Henry George, Jr. Industrial fuel from controlled pyrolysis of sawmill wastes.  
1712. Tower, Gordon Eugene. Development of a guide to order-giving for supervisory use in lumbering.

## 1945

1713. Dahl, Harold Anthony. A socio-economic plan of management for the Powder River working circle.  
1714. Forbes, Robert Hall. The use of sand and water cultures in Douglas fir nursery practice.

## 1946

1715. DeMoisy, Ralph Gordon. A plan for equipping United States Army Engineer forestry companies.  
1716. Schrader, Paul Gordon. Characterization of settled tar produced by carbonization of Douglas fir sawdust in a batch retort.  
1717. Succar, Jorge Rahme. A suggested plan for the manufacture of plywood in Peru.

## 1947

1718. Brady, Roy Charles. A regional plan of fire protection for private industry in the Douglas fir region.  
1719. Chatelain, Edward Frank. Food preferences of the Columbian black-tail deer *Odocoileus hemionus columbianus* (Richardson) on the Tillamook burn, Oregon.  
1720. Collins, Duane Francis. Potential timber values as compared to grazing values of the Oregon State College foothill pasture lands.  
1721. Graham, Robert Douglas. The effect of refining time and hot-pressing conditions on the properties of lodgepole pine fiberboard.  
1722. Kroll, Robert Louis. Carbonization products from Scholler lignin.  
1723. O'Leary, John Elmer. Timber transportation costs in the California pine region.  
1724. Weiser, Mortimer. Proximate analysis of Douglas fir bark and characterization of the petroleum ether extract.

## 1948

- 1725.\* Graham, Harold Morton. The chemical composition of the extractives from Douglas fir *Pseudotsuga taxifolia* Britt.

\* Doctoral dissertation.

1726. Lackey, Homer Baird. Constituents of the petroleum ether extractive from Sierra juniper *Juniperus occidentalis* Hooker.
1727. Plankinton, Robert. Some aspects of the swelling of cellulose pulp in sodium hydroxide solutions and the influence of wetting agents thereon.
1728. Rydalcch, Eva Ann. The determination of the approximate molecular weight, particle size, and homogeneity of some soda lignins.
1729. Wagg, John William Bruce. The formation of resin canals in the wood of Douglas fir as influenced by environment.

## 1949

1730. Cheng, Chi-shan. A preliminary investigation of the soaking treatment of black cottonwood and red alder fence posts in pentachlorophenol.
1731. Haydu, Eugene Peter. The effects of kraft mill waste effluents on king and silver salmon.
1732. Hubbard, James Kenneth. The distribution and properties of the tannin in Douglas fir bark *Pseudotsuga taxifolia* Britt.
1733. Kiefer, Harry John, Jr. The constituents of Douglas fir bark extractives *Pseudotsuga taxifolia* Britt.
1734. Olsen, Joseph Kent. Hydrogenation of solvent extracted Douglas fir lignin.
1735. Ousterhout, William Kimball. Wood molasses as compared to cane molasses in fattening rations for swine.
1736. Park, Jai Young. Growth and variability of *Fomes pini* in culture.
1737. Pehrsson, Hildger Alfred. Solvent extraction of lignin with dioxane.
1738. Subba Ratnam, Chaluvari Venkata. Products obtained by destructive distillation of Douglas fir bark.

## 1950

1739. Horne, Gerard Fowler. A management plan for the Bear Creek watershed of the city of Drain, Oregon.
- 1740.\* Hubbard, James Kenneth. The constituents of the extractives from ponderosa pine bark *Pinus ponderosa* Laws.
- 1741.\* Jennings, Jack Hall. Variations in the cellulose chain-length distribution resulting from different pulping and bleaching operations.
1742. Mangan, John William. Some factors affecting lumber requirements on western Oregon farms.
1743. Newport, Carl Allen. Diameter yield tables versus site index yield tables for western hemlock.
1744. Raphael, Harold James. The influence of depth of immersion on end penetration in Douglas fir heartwood when cold soaked in pentachlorophenol.
1745. Ruth, Robert Harvey. Cutting plans and logging costs in a 100 year old stand of Sitka spruce and western hemlock.
1746. Witcraft, Gilbert Merle. The dioxane extraction of lignin from wood.

## 1951

1747. Chang, Yun Hwa. The life history and external morphology of the cypress tip moth *Argyresthia cupressella* Wlsm.
1748. Hergert, Herbert Lawrence. The chemical nature of Douglas fir cork.

\* Doctoral dissertation.

1749. Howell, Wade Hampton. The efficiency of plots of various sizes and shapes in cruising second growth Douglas fir.
1750. Johnson, James Wendell. The relationship between shear and diagonal web stresses in laterally loaded wood panels.
1751. McKimmy, Milford D. An analysis of head-sawing operations at representative large fir sawmills.
- 1752.\* Osborn, Robert Otto. The effect of surface active agents in the bleaching of sulfite wood pulp.
1753. Robinson, Walter Lee. Application of western hemlock yield tables for Oregon and Washington to stands in Alaska and British Columbia.
1754. Smithson, John Lane. Occupational information concerning the lumber industry in Oregon.
1755. Stermitz, Robert Eugene. The relationship between log characteristics and lumber grade recovery from second growth Douglas fir.
1756. Whipple, Francis Oliver. The sodium xylenesulfonate pulping of northern black cottonwood.

## 1952

1757. Benson, Donald Dunbar. An analysis of deterioration in farm structures.
1758. Geiss, Almon Lewis. The effect of livestock production on reforestation of western Oregon marginal land.
1759. Hazarika, Indra Nath. A study of pulping processes in the United States with possibilities of application to Indian woods.
- 1760.\* Kiefer, Harry John, Jr. The chemical composition of the bast fibers of Douglas fir bark *Pseudotsuga taxifolia* (Poir.) Britt.
1761. Mason, Nicholas Victor. Cutting priority in old growth stands of the Pacific Northwest.
1762. Michael, Lawrence Wesley. The development of grazing on cut-over lands of western Oregon and factors relative to their use.
1763. Packard, Patricia Lois. A key to the deciduous woody plants of northwestern Oregon in winter.
1764. Parks, Walter Howard. Formation of quality classes for second-growth Douglas fir logs based on lumber grade recovery.
1765. Smith, James Edward. The nature of the chemical constituents of incense cedar *Libocedrus decurrens* Torr. bark.
1766. Tokos, George Mike. The nature of the chemical constituents of grand fir bark *Abies grandis* Lindl.
1767. Voorhies, Ray Van. Aerial photographs as an aid in preparing a management plan for the Blodgett tract.

## PENNSYLVANIA STATE COLLEGE

## 1910

1768. McConnell, Wilbur Ross. Entomological instruction for students of forestry, with an outline of a course of study in forest entomology.

## 1913

1769. Berry, J. B. Range management.
1770. Hartman, A. W. Economy in preserving timbers used for anthracite coal mines of Pennsylvania.

\* Doctoral dissertation.

1771. Work, Herman. Salmon National Forest; its resources and their relation to the community.

## 1915

1772. Dusham, Edward Henry. Contribution toward a monograph on the locust borer *Cyrtene robiniae* (Forst.)  
1773. Rhoads, Arthur Stevens. The black zones formed by some wood-destroying fungi.

## 1918

1774. Groff, George Weidman. The lichee and lungan.

## 1929

1775. McIntyre, A. C. Growth of certain conifers as influenced by different fertilizer treatment.  
1776. Sundling, H. L. Effect of soil reaction on the growth of certain coniferous seedlings.

## 1930

1777. Eyman, W. G. Investigation of the accuracy of the Swedish bark measuring instrument.  
1778. Ritter, Jeanette Gladys. Origin and development of tissues formed in the healing of wounds made by ringing woody stems.

## 1931

1779. Liefeld, T. A. A comparison of several methods of constructing taper and volume tables.  
1780. Vogenberger, R. A. Sprouting capacity and sprout development in certain hardwood species of central Pennsylvania.

## 1933

1781. Allison, Jack. Development of forest fire fighting weapons.  
1782. Griswold, V. A. Relation of drought to the death of trees.  
1783. Sluzalis, Lawrence Leonard. Cultural characteristics of some wood-destroying fungi.  
1784. Stone, L. H. A cone, seed and seedling study of Virginia pine *Pinus virginiana* Mill.  
1785. Ziebarth, R. K. Relation of chipmunks *Tamias striatus* (L.) to forest reproduction.

## 1935

1786. Strohlein, Ida Rose. The use of sofronin and malachite green in the identification of timber decay fungi in culture.

## 1939

1787. Hellmers, Henry. A study of the nutritive value of several of the natural winter foods of deer.  
1788. Sacco, Paul. The effect of certain indole compounds upon cuttage.

## 1940

1789. Rennard, Jacob Arthur. Reaction of some wood-decaying fungi on tannic acid medium.  
1790. Shaw, Charles Gardner. Microscopic characteristics of some wood-decay fungi.

## 1941

1791. Kuhn, Tracy Miller. Part I. Availability of mast for wildlife. Part II. Fall food habits of the ruffed grouse *Bonasa umbellus umbellus*.  
1792. Norris, Russell Taplin. An ecological study of the relationships between forest types and the wildlife species found thereon.  
1793. Studholme, Allan Taylor. Ruffed grouse *Bonasa umbellus umbellus* environment in the scrub oak-pitch pine forest type.

## 1942

1794. Jenkins, David Hall. Bob-white cover in Franklin County, Pennsylvania.  
1795. Stein, Forrest Calvin. The flora of Schuylkill County, Pennsylvania.

## 1943

1796. Sylvester, Walter Robert. A bio-ecological study of the chestnut oak forest.

## 1946

1797. Spangler, Gilbert Penrose. Introduction, development and experimental investigations of natural rubber in Liberia, West Africa.

## 1947

1798. Gaidula, Peter, Jr. A standard form class volume table for white pine in central Pennsylvania.  
1799. Ingersoll, Richard Howe. Veneer and adhesives; their manufacture, preparation and application in the plywood industry.  
1800. Lindquist, John Linus. Management plan for the McCorkel woodland.  
1801. Mellen, Robert Grant, Jr. Plywood adhesives.

## 1948

1802. Deitschman, Glenn Howard. Reforestation of strip-mined bituminous coal lands with special reference to Pennsylvania.  
1803. Dotter, Henry Albert, Jr. Plywood adhesives.  
1804. Forbes, Stanley Eugene. Experimental bulldozer operations for producing game food and cover on forested land.  
1805. Griffin, Erastus Paul, Jr. A study of glue-bond quality in 3-ply cross-grained mahogany plywood.  
1806. Harney, John Edward, Jr. The effect of forest cutting practices on deer browse in the chestnut oak *Quercus montana* type.  
1807. Richter, Wilmer Cernak. Singing ground analysis and cover preference of the American woodcock *Philohela minor* in central Pennsylvania.  
1808. Taras, Michael Andrew. The mechanical and physical properties of twenty-three Costa Rican hardwoods.  
1809. Trost, Robert Walter, Jr. A preliminary study of the effect of compression failure on shear strength in laminated yellow poplar.  
1810. Witherow, Boyd Manns. Lumber and its remanufacture; an inventory and directory of Pennsylvania wood using industries.

## 1949

1811. Chamberlain, Everett Bacon. A study of bark volume in cordwood and pulpwood and other bark relationships.  
1812. Early, Robert Clayton. Small game food and cover conditions produced by cutting practices in Virginia pine.  
1813. Little, Lawrence David Jr. The responses of growing-wood cuttings to sand and vermiculite as propagating media.



1814. McGinnes, Burd Sheldon. The effect of forestry cutting practices on the production of deer browse in the Virginia pine *Pinus virginiana* type.
1815. Wilson, Alvin Kay. The humus content of forest soils on the Allegheny watershed.

## 1950

1816. Ashley, Roger Herrick. The invasion and development of natural vegetation on spoil banks in central Pennsylvania.
1817. Cunningham, Gordon Rowe. A study of 23 Pennsylvania farm woodlands, 1946-1948.
1818. Enright, Leon J. A recreation survey of the borough of State College.
1819. Kemmerer, Harleigh Russell. The rooting response of evergreen cuttings in media treated with a root promoting substance.
1820. Niering, William Albert. The flora of Monroe and Pike Counties, Pennsylvania, preliminary survey.
1821. Parker, John M. Logging equipment used in the northeastern States.
1822. Russ, Darrell F. The effect of spacing on the growth and development of Norway spruce in plantations.
1823. Wingard, Robert G. The life history and habitat of the northern gray squirrel in relation to some forest communities in Huntingdon County, Pennsylvania.

## 1951

1824. Byrnes, William Richard. The effect of soil texture on the occurrence and type of ground freezing.
1825. Coleman, Geoffrey Briscoe. A study of water infiltration into soil banks in central Pennsylvania.
1826. Keller, William Carl. A survey of volume and condition of farm woodlands in Centre County, Pennsylvania.
1827. Kirk, Charles Richard. A forest survey with particular reference to management types and development.
1828. Liscinsky, Stephen A. The life history and habitat of the northern gray squirrel in relation to some plant communities in Centre County, Pennsylvania.
1829. Longwell, John Raymond. A study of seasonal activities and cover preferences of the American woodcock on a selected area in central Pennsylvania.
1830. McGinnes, Edgar A., Jr. A preliminary study of the shear strength of dowel joints.
1831. Nelson, Forrest Billings. Accuracy of gross growth determinations based on the measurement of increment cores.
1832. Orach, Stephen. Relationship between crown size, diameter and diameter growth of white, black and scarlet oak.

## 1952

1833. Bascope-Vargas, Federico Eduardo. Strength and other characteristics of resorcinol glue lines.
1834. Bedell, Joseph Henry. A preliminary study of the effect of hole size on the strength of dowel joints in tension.
1835. Johnson James Edward. A study of form class in upland oak forests of central Pennsylvania.

1836. McCullough, James Matthew. An appraisal of deer damage to natural forest reproduction of fenced and unfenced plots in selected localities in Pennsylvania.
1837. Meyers, William Angove. The effect of brush control spraying on the species composition of a scrub oak community of a power line right-of-way in relation to its game food production.
1838. Stambaugh, William James. A study of needle cast diseases of conifers in Pennsylvania.
1839. Szpak, Charles Anthony, Jr. The effects of winter pruning white oaks *Quercus alba* L. in relation to oak mast production.
1840. Tarr, Joseph A., Jr. The value of clear-cutting in strips to produce browse for deer in mixed oak forests over a fourteen-year period.
1841. Ward, Wilbur Wilson. Comparison of values obtained from the utilization of low grade oak trees for pulpwood, lumber, and cross ties.

## PURDUE UNIVERSITY

1948

1842. Rodarmel, John Richard. Stress analysis in kiln dried American elm.

1950

1843. Arnott, Donovan, Jr. Initial survival of planted hardwoods on strip mine spoil banks of Indiana.
1844. Furlow, Edward Pennington. Central American veneer woods—an economic study.
1845. Packman, Robert S. Green-dry strength ratios and the effect of various influencing factors upon the strength of green sugar maple *Acer saccharum* Marsh.
1846. Scholten, Harold. Study of tree growth and water runoff on Purdue dairy farm watersheds.

1952

- 1847.\* Suddarth, Stanley K. Cost minimization in the primary transport of forest products.
1848. McCoy, Earnest Wesley. An analytical comparison of grade yields and overrun in Indiana hardwood sawlogs.

AGRICULTURAL AND MECHANICAL  
COLLEGE OF TEXAS

1948

1849. Pickens, E. J., Jr. A preliminary survey of methods employed and certain cost factors associated with brush treatment in Texas.
1850. Schwinn, David S. The eradication of oak and yaupon on the range lands in the vicinity of College Station, Texas.
1851. Seidensticker, Elmer R. Comparison of weather in relation to vegetation in grassland and woodland types near College Station, Texas.
1852. Trew, Thad B. Natural succession of vegetation on abandoned farm lands in Brazos County, Texas.

\* Doctoral dissertation.

## 1949

1853. Hendrix, Thomas F. The methods of eradication and control of certain brush species in the vicinity of College Station.

## 1950

1854. McLeod, C. M. Composition, yield, and utilization of forage in a pine-hardwood forest area of Angelina County, Texas.  
1855. Waldrip, William J. Methods and results of chemical treatments on certain brush species in the vicinity of College Station, Texas.  
1856. Wilson, Davis G. A study of the effects of methods of clearing ashe juniper on species composition and successional trends on cleared range lands in Kerr and Real Counties.

## 1951

1857. Frey, Wade K. Effects of herbicidal applications on common persimmon *Diospyros virginiana*.  
1858.\* Hedrick, Donald W. Studies on the succession and manipulation of chamise brushlands in California.  
1859. Miller, William B. Utilization and composition of forage in a long-leaf pine-hardwood forest of Newton County, Texas.  
1860. Rhodes, Robert R. The determination of the volumes of forage and timber produced in a pine-hardwood stand in Montgomery County, Texas.  
1861. Seamans, Robert L. The determination of volumes of forage produced after one year of protection in pine-hardwood stand as compared with production under current grazing practices.

## 1952

1862. Anderson, David Adair. Grazing practices as a factor in fire occurrence in the coniferous forest area of southeast Texas.

## UTAH STATE AGRICULTURAL COLLEGE

## 1939

1863. Griner, Lynn A. A study of the sage grouse *Centrocercus urophasianus* with special reference to life history, habitat requirements, and numbers and distribution.  
1864. Hanson, W. R. Effects of grazing upon bunch wheat grass.

## 1941

1865. Bartels, Wilbur. Analysis of Rocky Mountain mule deer kill records of five-year deer removal from Logan River drainage of northern Utah.

## 1942

1866. Cook, C. W. A study of the roots of *Bromus inermis* in relation to drought resistance.  
1867. Norris, J. J. Botanical analyses of stomach contents as a method of determining forage consumption of range sheep.  
1868. Smith, Justin Gardinar. A study of deer population on the Wasatch Game Preserve, Utah, 1934-1942.

\* Doctoral dissertation.

## 1943

1869. Evans, Thomas Bramlett. A study of the Rocky Mountain mule deer *Odocoileus hemionus macrotis* Say in northern Utah.  
1870. Haas, Phillips. A study of beaver populations of some Utah streams.

## 1946

1871. Cook, Clyde J. Utilization of northern Utah summer range plants by sheep.  
1872. Janson, Reul. A survey of the native rabbits of Utah with reference to their classification, distribution, life history and ecology.  
1873. McDonald, John E. Measuring the forage crop of range lands by vegetation analysis.

## 1948

1874. Green, Lisle R. Utilization of forage plants and diet of sheep on Utah winter range.  
1875. Hubbard, William Aubrey. A study of the climate, soils, and soil-plant relationships of an area in southwestern Saskatchewan.  
1876. McIlvain, E. H. Differential germination and growth response of some important grass and forb seeds after treatment with 2,4-dichlorophenoxyacetic acid and diesel oil.

## 1949

1877. Frischknecht, Niel C. Seedling emergence and survival of sixteen grasses in central Utah.  
1878. Hyder, Donald N. Emergence and survival of four introduced wheat-grasses as influenced by rate and season of planting on abandoned farm lands of Utah.  
1879. Sharp, Lee. The diet and daily requirements of an experimental herd of sheep on Utah winter range.

## 1950

1880. Alhindawi, Ibrahim Y. 1. The nature of the gene. 2. An analysis of the validity of interpreting past climate by tree ring studies. 3. Plant diseases and insect problems in the middle eastern countries (Iraq, Palestine, Syria, and Lebanon).  
1881. Hubbert, Ferris E., Jr. An evaluation of grazing treatments on Utah spring and fall range reseeded to crested wheatgrass, in terms of beef cattle gains, and nutrient trends of available forage.  
1882. Ortiz, Luis B. Soil moisture in relation to plant growth.  
1883. Parkey, Wade. Effect of date of planting new seeds of ten forage species on emergence, survival, growth and flowering.  
1884. Peterson, Virgil C. 1. An economic study of cattle permits of district 1, Cache National Forest. 2. Breeding cattle for the tropics. 3. Forage plants for the American tropics.  
1885. Pitrat, Charles. The effect of four levels of phosphorous supplement on the productive efficiency of range ewes.  
1886. South, George Peart. Landslides as influenced by irrigation and drainage on the Uncompahgre Project lands in western Colorado and along the West Cache Irrigation Company canal in Idaho.  
1887. Stewart, Charles James. The ecological distribution of mammals of Green Canyon, North Logan, Cache County, Utah, and their relation to plant communities.

1888. Turner, George C., Jr. *Peromyscus* populations as related to seasons and vegetative types at the hardware ranch, Cache County, Utah.

1951

1889. Bassett, Neil Risser. Winter browse utilization and activities of moose on the Snake and Buffalo River bottoms of Jackson Hole, Wyoming.  
1890. McCormack, Rodger James. A population study of the South Cache elk herd.

1952

1891. Diem, Kenneth Lee. A management study of the Idaho-Utah interstate deer herd with special reference to the Sublett, Black Pine, and East Raft River Mountain unit.  
1892. Hill, Jerry W. Life history and management of the Cache deer herd.

## STATE COLLEGE OF WASHINGTON

1936

1893. Buechel, Henry Theodore. Labor relations in the west coast lumber industry, 1935.

1940

1894. Mason, James Ira. The Coccoidea of conifers of western United States (Homoptera).

1948

1895. Easterbrooks, Robert Dean. A study of the importance of farm woodlands as an enterprise on farms in western Washington.

1949

1896. Sung, Kaan. The electrolytic oxidation of sulfite waste liquor.

1951

1897. Newby, Fletcher Eugene. Ecology of the marten in the Twin Lakes area, Chelan County, Washington.

## UNIVERSITY OF WASHINGTON

1909

1898. Jackson, Alexander Grant. Studies in Douglas fir *Pseudotsuga taxifolia*.

1911

1899. Pope, Clarence R. Shade trees of Seattle.

1912

1900. Douglas, Robert Walter. Treatment of western hemlock and Douglas fir paving blocks by the open tank process.  
1901. Stamm, Samuel A. Description and comparison of an efficient sawmill.

## 1913

1902. Ericson, Oliver. The identification of the North American hickories based on the anatomy of the secondary wood.  
1903. Grondal, B. L. The comparative durability of Douglas fir, western hemlock, and western red cedar as determined by an investigation of the stampede switchback.

## 1914

1904. Garvey, C. R. Overhead systems of logging in the Northwest.

## 1915

1905. Beard, Frank Wilson. History of industrial insurance and the need of an amendment to the compensation act of the State of Washington concerning "first aid."  
1906. Schneider, Isaac. The topographometer—a new instrument for measuring horizontal and vertical distances.

## 1916

1907. Rengstorff, E. H. Revision of methods in computing volumes of piling for creosoting.

## 1917

1908. Young, L. P. Comparison of different methods of estimating timber.

## 1920

1909. Burleigh, T. D. The economic value of bird life to the forests.  
1910. Knapp, F. M. Logging by motor truck.  
1911. Sylven, O. G. H. Compilation of our knowledge of the Douglas fir.

## 1921

1912. Fogelquist, C. F. Planing mill practice and design.  
1913. Gamm, I. O. W. The fiber length of Douglas fir as a determinative characteristic in the perforation process of creosoting Douglas fir.  
1914. Koroleff, A. M. Logging by crawler-type tractors.

## 1923

1915. Kaul, S. N. Applicability of American methods of logging to the Himalayan forests of India with special reference to those in Kashmir state.  
1916. Penas, Nazario. The determination of errors in partial cruising in the Pacific Northwest and amount of waste left in the woods after logging.  
1917. Recart, Horacio, Jr. A study of Chilean woods.  
1918. Tamesis y Revuelta, Florencio. The relation of the hygroscopicity of wood to temperature.

## 1924

1919. Dodge, Estella Grace. The significance of spiral fission in the secondary lamellae of the prosenchymatous tracheids of Douglas fir with special reference to shrinkage.  
1920. Miyashita, Yasuo. The relation between surface hardness and gross hardness of Japanese woods.  
1921. Studley, James Donald. The cost of kiln drying compared to the cost of air seasoning heavy sizes of green southern swamp oak.

## 1925

1922. Orr, Gilbert McMaster. Logging inclines.  
1923. Wernham, John William Kench. The veneer industry and its relation to the profitable utilization of south Indian hardwoods.

## 1926

1924. Sanders, Arthur Leslie. The elimination of waste in sawmill practice.  
1925. Shull, Josiah Theodore. Overhead logging on the Pacific coast.

## 1927

1926. Cory, Floyd Willard. The influence of Canadian competition on the pulp-wood industry of the Pacific Coast.  
1927. Rao, Deshapande Narasimha Moorthy. Logging methods in the Pacific Coast states and the Inland Empire and their applicability to the forests of the state of Mysore, India.

## 1928

1928. Fery, Carl Salvatore. Timber appraisal in the Douglas fir region.

## 1929

1929. Gordon, Claire Ivon. The relationship between the specific gravity and hygroscopicity of coniferous wood.  
1930. Hornem, Hugh Henry. Tractor logging.

## 1930

1931. Brandner, Henry Philip. Systematic development of recreational resources on forest lands.  
1932. Carlson, Floyd Everett. Log scaling in southeastern Alaska with particular reference to wind shake defect.  
1933. Hua, Tung. The microscopic characteristics of Chinese woods.  
1934. Pike, Mark Jewell. The quality and quantity of lumber produced and the efficiency of utilization in the cutting of second growth Douglas fir logs.

## 1931

1935. Brockman, Christian Frank. Forests and timber types of Mount Rainier National Park.  
1936. Cortes y Tolentino, Rosario and Joseph Ellsworth McPherson. Twelve Philippine dipterocarps—their mechanical and physical properties.  
1937. Cox, Allen Howard, Jr. An analysis of the power requirements of a sawmill.  
1938. Guerrero, Faustino Albano. Selective logging in the Pacific States and its application to the forests of the Philippine Islands.  
1939. Liersch, John Edward. Detailed valuation for future cutting of present marginal and negative stands in the Douglas fir region.  
1940. McCannel, Kenneth Campbell. A method of determining grade and log size for detailed valuation of Douglas fir stands.  
1941. Ramsey, Guy Reed. Declining forest productivity in the valley of the north fork of the Stillaguamish River, Washington, due to logging and fires.  
1942. Webster, Lloyd Todd. Detailed valuation for selective logging in the Douglas fir region.

## 1932

1943. Hayward, Stanton Burr. Analysis of a method of preparing volume tables as applied to the construction of a hemlock board foot volume table.
1944. Kaiser, James George. Air velocity as a factor in the kiln drying of wood.
1945. Ross, Charles Robert. Root development of western conifers.
1946. Thomson, Walter Gardner. The effect of high temperatures upon the strength of a softwood.
1947. Welch, Douglass Cressy. Specific hardness tests of wood.
1948. Worthington, Robert Edgar. Analysis of logging costs by application of output studies.

## 1933

1949. Markham, Wilbur Addison. Private land forestry in Mason County, Washington.
1950. Morrill, George Edwin. Climatic cycles in relation to growth of Douglas fir.
1951. Overly, Fred John, and Mohamed Ahmed. Correlation of site quality and the lesser vegetation.
1952. Rao, Davangere Appu Rao Rama. Studies on lignin.
1953. Slattery, James Elmo. The penetration of inorganic salt solutions in Douglas fir.
1954. Wagner, Roy George. The relationship of forest lands to rural school districts, with special reference to their financing in Mason County, Washington.

## 1935

1955. Cairney, Daniel William. The effect of some economic disturbances on lumber trade of Washington and British Columbia.
1956. Schenstrom, Stig Robertson. A study of the length of the tracheids in western hemlock.

## 1936

1957. Stone, Clarence Dillon. Penetration of preservatives in Douglas fir as affected by the position of the tori in the pit-pairs.
1958. Vaux, Cleland Huger. Accuracy of logging and milling time curves.
1959. Williams, Simon. A comparative study of the wood anatomy of some of the major shrubs and smaller tree species of the Pacific Northwest.

## 1937

1960. Twerdal, Melvin Peder. A development plan of the Lee Forest.

## 1938

1961. Grichuhin, Theodore Fred. Tests to determine the column-strength of plywood.
1962. Proctor, Phimister, Jr. A new technique in the study of the penetration of wood by fungi.
1963. Wilson, Hubert Orel. Management plan and plan of utilization of the Suiattle working circle.
1964. Woods, John Burton. Ligneous plants for erosion control.
1965. Zumwalt, Eugene Vernon. Planting records and program on the Charles Lathrop Pack Demonstration Forest.



## 1939

1966. Demick, Van Buren, Jr. The effect of depth of covering on the germination of Douglas fir seed.
1967. Mattet, Arthur Louis. The sulfonation of western hemlock lignin.
- 1968.\* Stone, Clarence Dillon. A study on the bordered pits of Douglas fir with reference to the permeability of the wood by liquids.
- 1969.\* Thrupp, Adrian Cracroft. Effect of seed-ash characteristics and treatment of seed and soils upon coniferous seed germination.

## 1940

1970. Wilma, Delos Dorn. The determination of the degree of fibrillation in the beating of wood pulp.

## 1941

1971. Patterson, Gordon Kimmont. The Coleoptera of Washington: Scolytoidea.
1972. West, William Irvin. Structural variations in the closing membranes of pit-pairs in several coniferous woods.

## 1942

1973. Brandes, Robert Alfred. A log grade analysis of ponderosa pine.
1974. Muthanna, Palekanda Woothiah. The use of naphthenic acid in the preservative treatment of wood.
1975. Peterson, Robert Donald. A forest land study of Snohomish County, Washington.

## 1945

1976. Tse, David Yung-yuen. New methods for determining the cubic volume of felled trees.

## 1946

1977. Cross, Clark Irwin. Factors influencing the abandonment of lumber mill towns in the Puget Sound region.
1978. Davies, William Albert. Development of graphical and tabular methods of determining tension in logging skylines.
1979. Fan, Tsi-Chou. Analyses of the types of growth curves used in forestry.
1980. Hardy, Malcolm Edward. The use of aircraft in forest fire control.
1981. Iyer, N. K. Specific adhesion as a factor in the gluing of wood.
1982. Nadkarni, Prabhakar Shankarrao. Gluing characteristics of *Boswellia serrata*, *Cedrela toona*, *Dalbergia latifolia*, and *Mangifera indica*, the Indian hardwoods.
1983. Prater, James Dean. Forest fire behavior studies.
1984. Pratt, Willard Eldridge. An investigation of the penetration of a hygroscopic salt used in the preservation of Douglas fir.
1985. Taylor, Stanley Arthur. An investigation of the specific adhesion of a synthetic resin glue in end joints in wood.
1986. Todd, Jay. The effect of torsion on the stiffness of wooden beams.

## 1947

1987. Cook, Franklin Willson. The development of a laboratory technique for the study of fungus-infected wood fibers of Douglas fir and western hemlock.

\* Doctoral dissertation.

1988. Grant, Donald Lee. The importance, present management, problems and recommendations for the development of the forests of the Columbia Valley.
1989. Johnston, James Phillip. The release of residual trees in a selectively cut ponderosa pine stand.
1990. Kleiner, Robert Eugene. Stand improvement of young forests in the Douglas fir region of the Pacific Northwest.
1991. Levine, Jesse. Investigation of the strength properties of glue lines formed by gluing well matched surfaces.
1992. Thomas, David Phillip. An investigation of the effect of catalytic accelerators on the dielectric rupture of a resorcinol-formaldehyde resin adhesive.
1993. Zeigler, James Louis. A study of fungus-infected wood fibers of western hemlock and Douglas fir.

## 1948

1994. Aggarwala, Jagdish Chandra. The cellulose and lignin of Indian bamboo wood.
1995. Beck, George Frederick. Pine and pine-like woods of the west American Tertiary.
1996. Bryant, Benjamin Smyth. A study of the impregnation of ponderosa pine with synthetic resins.
1997. Horne, Roy Charles. Surface characteristics of coniferous wood as a factor in the strength of glue joints.
1998. Jakobsson, Vigfus. Prevention of the deterioration of wood marine structures in Iceland.
1999. Ming, Yu Koh. Systematic anatomy of the woods of the Fagaceae.
2000. Tinney, William Abner, and Donald Bruer Malmberg. Tree management and marking rules, second growth Douglas fir.
2001. Tu, Hung-Yeuan. The fiber dimensions of some Chinese woods.

## 1949

2002. Bartels, Harry Henderson. The effect of extender and filler materials upon the shear strength of a resorcinol-formaldehyde resin adhesive as determined by two methods of cure.
2003. Lazara, Michael P. Certain economic phases of the production and marketing of English holly in the state of Washington.

## 1950

2004. Chaudhuri, Pranab Kumar Basu Ray. Studies on peanut protein plywood glue.
2005. Groner, Amund. The use of plants as site indicators for Douglas fir in Coos County, Oregon, and the correlation of site with soil properties.
2006. Grotefend, Robert Tiffany. The Kelsh plotter and its application to forestry.
2007. Hanley, William Monroe. Strength tests on remanufactured low grade lumber.
2008. Holthy, Bert Edmond. A timber management plan for Pack Forest.
2009. Johnson, Charles Montgomery. Education in forest fire prevention through the Keep Washington Green Association.
2010. Shih, Ming Chang. A logging plan for Runba Forest, Sikang Province, West China.

2011. Stordalen, Kjell Normann. The effect of fiber length upon the strength of hardboard.  
2012. Varadaraj, S. K. A study of the effect of pre-treatment of hardwood veneers on bonding with phenolic type resins.  
2013. Wong, Hui Pa. Delignification studies on Chinese bamboo woods.

## 1951

2014. Bentley, Albert Ross. Factors in the development of a logging arch for hauling four foot pulpwood.  
2015. Burkart, Leonard Francis. The development of a steam hydraulic log barker.  
2016. Cheng, Tsun-Ching. Anatomy of some important timbers of South China.  
2017. Savran, Kuddusi. Forest permanent sample plots in forest management.  
2018. Ungan, Kemal. Plans for the introduction into Turkey of Douglas fir *Pseudotsuga taxifolia* and other exotic forest trees.

## 1952

- 2019.\* Chaudhuri, Pranab Kumar Basu Ray. Enrichment of the protein of *Arachis hypogaea* by fermentation.  
2020.\* Clark, Donald Hathaway. An analysis of forest utilization as a factor in colonizing the Pacific Northwest and in subsequent population transitions.  
2021. Dietrich, John Harvey. A selected and annotated bibliography on fire behavior, fire danger, fire effects, and fire weather, 1940-1951.  
2022. Eklund, Risto. A survey of North American logging equipment, methods, and organization with reference to their application in Finland.  
2023. Leaf, Albert L. Correlation of ponderosa pine site quality and certain soil properties on the Colville Indian Reservation, Washington.  
2024. McIntyre, Robert Norman. A brief administrative history of Mount Rainier National Park.  
2025.\* Schaeffer, Walter Howard. A harvesting technique for beetle-killed Englemann spruce on the western slope of Colorado.  
2026. Sharpe, Grant William. 101 wildflowers of Glacier National Park.

## YALE UNIVERSITY

## 1900

2027. Bristol, H. R. A treatise on the hickories, with special reference to their uses in the arts.

## 1902

2028. Akerman, Alfred. A study of sprout forests in the Litchfield Hills, Litchfield County, Connecticut.  
2029. Chapman, C. S. The chestnut in Connecticut.  
2030. Chittenden, A. K. The development of forestry in the United States.  
2031. Clement, G. E. The manufacture of slack cooperage staves in the United States.  
2032. Emmet, C. T. A study of the balsam fir.

\* Doctoral dissertation.

2033. Hosmer, R. S. Some silvicultural notes on the spruce forests of New England and New York.  
2034. Myers, G. H. The hard maple in central Vermont.

## 1903

2035. Anderson, J. B. Chestnut timber.  
2036. Braniff, E. A. The lodgepole pine, a silvicultural study of the tree in Bear Canyon, Gallatin Co., Montana; and a discussion of the cutting and seasoning of lodgepole pine.  
2037. Clothier, G. L. Forests and forest extension in western Indian Territory, Oklahoma, northwestern Texas, southeastern Colorado and southern Kansas.  
2038. Cooper, A. W. The uses of Connecticut woods.  
2039. Gardner, W. J. A silvicultural description of the Wichita Forest Reserve, Oklahoma.  
2040. Hawes, A. F. A study of beech and yellow birch as they occur in northern Maine, together with an account of the veneer industry.  
2041. Moore, E. J. S. A comparative study of methods of sawing logs.  
2042. Peters, J. G. A study of the white pine of Otsego County, N. Y.  
2043. Spring, S. N. The extension of white pine over old fields and pastures in New England.  
2044. Sterrett, W. D. The white pine in the southern Appalachians.  
2045. Stevens, H. G. *Fraxinus americana*. The white ash.  
2046. Wilson, R. B. The proposed Klamath River Forest Reserve.

## 1904

2047. Appleton, John. A study of white birch and of the spool and novelty industries in Maine.  
2048. Ayres, R. W., and H. W. Chittenden. A thesis on hard maple *Acer saccharum* . . . .  
2049. Baker, H. P. A study of the shrinkage of wood.  
2050. Bayer, W. H. von. Thesis on the effect of site upon the compression values of the wood of the white oak *Quercus alba*.  
2051. Besley, F. W. A silvicultural study of Engelmann spruce on Pike's Peak Forest Reserve.  
2052. Bridges, J. H. Tree planting on the Dismal River Forest reserve.  
2053. Brown, H. J. The possibilities of Corbin Park as an example of practical forestry, combined with game propagation.  
2054. Carter, E. E. A discussion of the methods of hauling logs in the spruce forests of Maine.  
2055. Chapman, H. H. Policy of the forest reserve administration towards the settling within the boundaries of the reserves, with especial reference to the Minnesota Chippewa Reserve.  
2056. Eastman, H. B. History and industrial uses of the second growth white pine of New England.  
2057. Flinham, S. J. and C. A. Lyford. Absorption and desiccation of wood.  
2058. Foster, H. D. A silvicultural description of Mount San Hedrin in Mendocino County, California.  
2059. Greeley, W. B. The relation of forests to water supply and stream flow.  
2060. Hadley, W. B. Forest investigation of the San Gabriel Forest Reserve.  
2061. Hawley, R. C. The effects of surface fires on forest soil and trees in southern New England.

2062. Kelleter, P. D. A silvicultural description of Sonoma and Mendocino Counties, California.  
2063. Kobbé, W. H. Birds in their relation to forestry.  
2064. Cancelled.  
2065. Mattoon, W. R. A study of the origin and early growth of chestnut sprouts.  
2066. Merrill, H. G. A comparative study of forestry in British India and in the United States.  
2067. Redington, P. G. A study of the tanbark oak of California *Quercus densiflora*.  
2068. Searle, A. T. The species of *Pinus attenuata* and *Pseudotsuga macrocarpa* as factors for reforestation on the reserves of southern California.  
2069. Smith, C. G. Forest mapping.  
2070. Viles, B. S. A study of poplar growth of the Dead River region, Maine.  
2071. Weigle, W. G. A silvicultural study of the red spruce of the White Mountain region, New Hampshire.  
2072. Woodward, K. W. Wood of the American species of the genus *Fraxinus*.

## 1905

2073. Powers, A. R. The economic value of second-growth yellow pine in California.  
2074. Taylor, T. J. Obtaining coniferous seeds.

## 1906

2075. Patterson, A. B. A working plan for the timberlands of the Hillman Land and Iron Company in western Kentucky.  
2076. Reckwagel, A. B. Management aspect of the forest fire problem.

## 1907

2077. Dana, S. T. Measures for the prevention of forest fires, by Dr. M. Kienitz. . . . Translated by S. T. Dana.  
2078. Eckbo, N. B. Charcoal burning in open kilns.

## 1908

2079. Moore, B. The effect of fire on sprout hardwoods.

## 1909

2080. Bishop, D. F. Seeds, germination and growth of fifteen native species.  
2081. Chandlee, G. M. Wood of the white ash *Fraxinus americana*.

## 1917

2082. Nayudu, G. K. Hardwood distillation.  
2083. Nayudu, G. K. The principles of seasoning lumber and dry kiln operation (with drawings and blueprints).

## 1919

2084. Ip, N. K. Report on germination of 50 species of trees, nursery practice, Part II. Report on Chinese and Japanese woods.

## 1920

2085. Corbin, Samuel. Woods of Guatemala and Honduras. A study of the gross and microscopic features of a group of sixty-nine woods collected by Dr. H. N. Whitford on a survey of the boundary between these two Central American republics in 1919.
2086. Tiemann, H. D. A study of the board-foot log-scale in theory and practice.

## 1921

2087. Ingalls, E. E. The preservative treatment of railway cross ties. A description of the methods employed at the timber preserving plant of the Chicago, Burlington, and Quincy Railroad at Galesburg, Illinois.

## 1923

2088. Garratt, G. A. Woods of New Zealand. A study of the secondary wood of ten gymnosperms and eighteen dicotyledons, with keys to the identification of the latter.

## 1924

2089. Randall, A. G. A basis for systematic land use in the United States.

## 1925

2090. Leffelman, L. J. Study of advanced growth following cuttings in the hardwood type.
- 2091.\* Li, T. T. Soil temperature as influenced by forest cover. (Published as: Yale University. School of Forestry. Bulletin 18, 1926.)
2092. Madlinger, G. J. Lumber merchandising and economic commercial species.

## 1926

2093. Averell, J. L. Reproduction following cuttings in hardwood forests of southern Connecticut.
2094. Cooper, G. P. Forest geography of Latin America, Tropical forest products of commerce, A pictorial review of the better known woods of tropical America.
2095. Hunting, S. T. Forests of Latin America.
2096. McLaughlin, R. P. The wood of Magnoliaceae.
2097. Meiring, S. J. Silvical characteristics of economic trees.
2098. Paton, R. R. The relative importance of origin of mature mixed hardwood stands.

## 1927

2099. de la Cruz, E. S. Application of soil survey to land utilization in the Philippines.
2100. Hough, A. F. Conversion of the mixed hardwood type to pine in Southern New England.
- 2101.\* Korstian, C. F. Factors controlling germination and early survival in oaks. (Published as: Yale University. School of Forestry. Bulletin 19, 1927)
2102. Lutz, H. J. Successional tendencies in the woodlands and their bearings on silvicultural practice.

\* Doctoral dissertation.

2103. MacKinney, A. L. Soil temperature and soil freezing in the forest in autumn and winter.  
2104. Mowat, E. L. A study of advance reproduction in the even-aged, unthinned Connecticut hardwood stand.  
2105. Sajor, V. Forest grazing.  
2106.\* Simpson, W. J. The seasonal variation of the soil moisture in the forest and in the open.  
2107. Skellenger, L. E. Basidio-fungi of our most important forest trees.  
2108. Taylor, R. F. A silvical study of black birch in the southern New England hardwood region.  
2109. Thompson, A. E. Intensive management in the Connecticut hardwood region.

## 1928

2110. Fehren, R. B. The intercoastal lumber business, a survey of the economic distribution of West Coast woods on the Eastern States.  
2111. Holdsworth, R. P. An outline of some points in the history of American forests and forestry.  
2112. Milliken, F. A. A discussion of the wood and lumber market in New England.  
2113. Ramskill, J. H. A preliminary study of certain phenomena occurring in the seasoning of wood.

## 1929

2114. Ashman, R. I. A study of forestry in New England with particular reference to market conditions.  
2115. Bedard, P. W. Forest subdivision and subdivisational records.  
2116. Bolles, W. H. Forestry in New Haven County.  
2117. Bull, H. The relation of nitrogen transformation in forest soils to growth of red pine.  
2118. Cottrell, A. T. Some preliminary observations on the management and utilization of southern white cedar in the coastal plain of New Jersey.  
2119.\* Craib, I. J. Some aspects of soil moisture in the forest. (Published as: Yale University. School of Forestry. Bulletin 25, 1929)  
2120. Cummings, L. A. Commercial trees of Latin America. Key to the identification of Latin American woods.  
2121. Cummings, L. A. Forests of tropical America.  
2122. Dahl, T. W. Mycorrhiza, its significance and importance in the forest, with particular reference to its development in forest soils of Scandinavia.  
2123. Dean, H. A. The lumber manufacturer's trade association. A history of its development and economic aspects in the United States.  
2124. Deen, J. L. The value of meteorological observations in fire control.  
2125. Falconer, J. G. Successful retail lumber merchandising.  
2126. Goldberg, H. M. The timber cut of the past in the United States.  
2127. Goodspeed, A. W. The development of forest administration and working plans in Burma.  
2128.\* Grasovsky, A. Some aspects of light in the forest. (Published as: Yale University. School of Forestry. Bulletin 23, 1929)  
2129. Hatch, A. B. Studies in the propagation of *Magnolia acuminata*. I. Temperature storage treatments.

\* Doctoral dissertation.

2130. Maughan, W. The subdivision of the forest for management.  
2131.\* Meyer, W. H. Diameter distribution series in even-aged forest stands.  
(Published as: Yale University. School of Forestry. Bulletin 28, 1930)  
2132. Sample, L. A. A comparative study of Forest Service management plans.  
2133.\* Shirley, H. L. The influence of light intensity and light quality upon the growth of plants. (Published in: American journal of botany. 16:354-390, May 1929)  
2134. Trist, A. R. A brief history of Australian forestry, with particular reference to federal forestry.  
2135. Trist, A. R. An introductory study of the exotics in South Africa.  
2136.\* White, W. E. Studies in natural reproduction of white pine in Cheshire County, New Hampshire.  
2137. Zamuco, G. Important timbers of southeastern Asia and the East Indies.

## 1930

2138. Abell, C. A. The price of lumber.  
2139. Adams, H. E. Forest taxation in Europe.  
2140.\* Barr, P. M. The effect of soil moisture on the establishment of spruce reproduction in British Columbia. (Published as: Yale University. School of Forestry. Bulletin 26, 1930)  
2141. Bennett, J. H. vanS. Fire control, Witherby tract, Berkeley County, South Carolina.  
2142. Bixby, T. P. Lumber vs. competitive materials, with special reference to small dwelling house construction.  
2143. Bramble, W. C. The *Strumella* disease on oaks in southern Connecticut.  
2144. Canfield, R. H. The effects of intensity and frequency of clipping black grama and tobosa grass on yield.  
2145. Cochran, A. R. Reproduction following cuttings, particularly thinnings in hardwood and hemlock-hardwood stands even-aged and uneven-aged.  
2146. Diller, J. D. The effect of light on the germination of seeds.  
2147. Garstka, W. U. The calcium content of Connecticut forest litter.  
2148. Hallin, W. Slash disposal in the important forest region of western United States.  
2149. Heilman, J. M. The historical development of grading rules.  
2150. Holt, R. W. Wood substitutes and their effects on the consumption of wood in building construction.  
2151. Kimball, J. A. C. The white pine blight sometimes known as short needle.  
2152. Kreager, P. T. The exportation of Douglas fir.  
2153. Kreager, P. T. Slash disposal in the hardwood forests of New Haven County, Connecticut.  
2154. Lambert, J. H. Management of white pine *Pinus strobus* with particular reference to New England.  
2155. Loring, J. M. The conversion of volume tables for Connecticut hardwoods to alignment chart volume tables.  
2156. MacMaster, M., Jr. An economic aspect of the lumber market in New England.  
2157. Mardascheff, I. G. Natural regeneration of spruce *Picea excelsa* following cutting.

\* Doctoral dissertation.



2158. Miller, H. A. Diameter distribution series in white pine plantations.  
2159. Miller, W. D. The effects of length and type of storage on the viability of coniferous seeds.  
2160.\* Nieuwejaar, O. Methods of forest taxation in Norway and Sweden.  
2161. Ricker, M. B. The influence of the use of substitutes for wood upon the practice of forestry in the United States.  
2162. Roberts, E. V. Yellow poplar in the vicinity of New Haven.  
2163. Rowe, P. B. The early development and successional tendencies of white and red pine old field plantations.  
2164. Stephenson, G. K. A study of forest regulation.  
2165. Stoller, K. M. Release cuttings in the pine plantations of the New Haven region.  
2166. Wilford, B. H. The spruce gall aphid *Adelges abietis* (Linnaeus).  
2167. Winch, E. C. Slash pine—its possibilities for management.

## 1931

- 2168.\* Baldwin, H. I. Factors affecting the germination of red spruce *Picea rubra* Link.  
2169. Bennett, F. W. Some developments of the pine lumber industry of the South.  
2170. Benson, C. E. Comparative value of various hand tools for emergency fire line construction.  
2171. Bernier, J. L. Sample plots, their development and use in research.  
2172. Blythe, R. H. The influence of crown class on the specific gravity of the wood of red pine.  
2173. Butterfield, K. P. Application of the selection system in the United States.  
2174. Crane, A. H. Forest administration in the United States.  
2175. Cummings, L. J. The correlation of logging and management in the Douglas fir region.  
2176. Curtis, R. H. Percentage relation of the growth in bark thickness to current diameter growth in white pine.  
2177.\* Deen, J. L. The silvicultural importance of an early expression of dominance in even-aged, fully-stocked stands of northern white pine. (Published as: Yale University. School of Forestry. Bulletin 36, 1933)  
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2179. Folweiler, A. D. The economic aspects of the production of slash pine.  
2180. Hagan, J. The domestic distribution of softwood lumber of the Douglas fir region.  
2181. Howell, H. A. A review of the southern pine industry.  
2182. Humphrey, M. W. The stocking of hardwood stands on the Maltby and Saltonstall divisions of the Eli Whitney Forest.  
2183. Kuenzel, J. G. The development of management plans in United States and optimum requirements for their preparation and use.  
2184. Limstrom, G. A. Replacement of aspen by conifers in northeastern Minnesota.  
2185. Margolis, R. Anatomical description of some woods of the Euphorbiaceae and Rubiaceae.  
2186. Monahan, R. S. Timber line study, a general review of the influences affecting altitudinal limit of tree growth with special reference to their application on the Presidential Range of the White Mountains.

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2187. Murphey, F. T. Small sawmilling problems with particular reference to northern hardwoods.  
2188. Nicholas, H. M. Marketing eastern hardwoods.  
2189. Peck, R. H. A survey of state forest fire control in Connecticut directed toward reducing annual burn.  
2190. Plusnin, B. The transportation of timber on gravity chutes.  
2191. Ritter, J. E. Insect control on forest management with special reference to barkbeetles of the genus *Dendroctonus*.  
2192. Schontz, J. L. The development of the pulp and paper industry in the United States.  
2193. Simmons, F. C. Forest policies of New York State.  
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2196. Tomlinson, H. R. Relation of crown class to specific gravity of northern white pine.  
2197. Vinton, E. L. Collection, storage and germination of forest tree seeds.

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2199. Bidwell, C. B. A survey of the *Strumella* disease on oaks in the Eli Whitney Forest.  
2200. Bixby, L. M. A management plan for the Osbornedale farm, Derby, Connecticut.  
2201. Bruner, M. H. A study of tree seeds collected in the vicinity of New Haven, Connecticut.  
2202. Cary, E. S. Problems affecting the utilization of New England hardwoods.  
2203. Childs, E. C. The forests and the forest products of the Philippine Islands.  
2204. Childs, E. C. The genus *Tsuga*, with especial attention to the silvical characteristics and their relation to the economic position of the eastern hemlock among the timber trees of New England.  
2205. Collins, A. B. Utilization of hardwood cross ties with especial reference to New England.  
2206. Coover, C. A. Some effects of drought in the forests of southern Pennsylvania.  
2207. Eyman, W. G. Surface veneers of furniture.  
2208. Greene, E. C. Santa María *Calophyllum reko* and *Calophyllum antillanum*.  
2209. Hawes, N. E. Balsa wood.  
2210. Hicks, H. M. Growth factors influencing the specific gravity of the wood of chestnut oak.  
2211. Inskeep, A. Artificial regeneration in the Northeast.  
2212. Kimberly, J. T. Comparative growth study between white pine in the North, at Keene, N. H., and in the South, at Cooper's Creek, Ga.  
2213. Latham, O. L. A study of fire hazard with special reference to the influence of forest cover in the western Adirondacks.  
2214. Libby, J. A. Control of the mountain pine beetle *Dendroctonus monilicollae* Hopk. with special reference to control in lodgepole pine *Pinus contorta* Loudon by the burning-standing method.

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2216. Maher, J. C. The proper use of wood in house construction.  
2217. Martin, W. R. H. Thinnings in white pine plantations from a financial standpoint.  
2218.\* Miller, W. D. The effects of weedings on the survival and growth of white and red pine on the Yale demonstration and research forest, Keene, New Hampshire.  
2219. Parr, T. J. The effects of the "pit-making oak scale" *Asterolecanium variolosum* (Ratz.) upon chestnut oak. A preliminary study.  
2220. Pilmer, H. E. Utilization as a factor in the development of the practice of forestry in the Northeast.  
2221. Rouillier, N. E. The planting of failures in artificial and natural stands of white pine.  
2222. Ryerson, J. Competing lumber giants—Douglas fir and southern pine.  
2223. Smith, L. F. The effect of density on red pine seedlings. *Pinus resinosa* L.  
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2226. Beard, F. Regional development of the pulp and paper industry.  
2227. Beeman, R. W. The feasibility of sustained yield for the private timber operators of the Douglas fir region.  
2228. Brown, M. T. The relative importance of site, age class, crown class and treatment on the current diameter growth of red oak *Quercus borealis* Michx. and eastern hemlock *Tsuga canadensis* Linn.  
2229. Christen, H. E. Utilization of Connecticut hardwoods for highway posts.  
2230. Clapp, R. T. Silvicultural practice and its effect upon the future of white pine in New England.  
2231. Davis, W. S. Forest improvements for management as applied to Indian Township, Maine.  
2232. Diggs, R. L. The relation of dogwood and viburnum undergrowth to the establishment of hardwood reproduction following cuttings.  
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2245. Medesy, W. A. A woodlot grazing study in Indiana.
2246. Nelson, A. Z. The use of statistical methods in forest investigations.
2247. Quick, W. J. Forest fire protection in Maryland with special reference to accomplishments and suggested legislation.
2248. Schultz, M. A. Wild fowl and land management.
2249. Skinner, C. W. The effect of creosoting on the strength of Parana pine.
2250. Trask, H. O. A study of the application to Indian township, Maine, of the cover type classification, compiled by the Society of American Foresters.
2251. Voorendyk, J. J. Farm forestry, a survey of small woodlands of different countries, with respect to their problems and advantages.
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2254. Cloutier, G. Stream improvements for timber transportation.
2255. Connaughton, C. A. A study of the factors causing lower timber line in central Idaho.
2256. Everard, W. P. Economic aspects of cross tie preservation.
2257. Fletcher, P. W. The influence of a forest cover on the accumulation and retention of snow.
2258. Giddings, E. L. The forest fire problem in the Pacific Northwest.
2259. Kuehn, C. C. Comparative strength properties of slash and longleaf pines.
2260. Sawyer, G. C. Forest land values and forest taxation in the Northeast.
- 2261.\* Taylor, R. F. Available nitrogen as a factor influencing the occurrence of Sitka spruce and western hemlock seedlings in the forests of southeastern Alaska.
2262. Willison, C. H. Survey and evaluation of forest statistics.

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2264. Clark, Ellis William. Soil texture in relation to forest site quality.
2265. Dunford, Earl Gerard. The application of the diameter limit system of cutting to Sitka spruce.
- 2266.\* Garin, Alexis N. Corporate profits in the forest industries.
2267. Griswold, Norman Bulkeley. Soil permeability under red and white pine stands of varying age.
2268. Grosenbaugh, Lewis Randolph. A brief analysis of the commercial and ecological aspects of exotic forest tree species in the United States.
2269. Hall, John Somers. Motor truck logging in the United States.
- 2270.\* Hansbrough, John Raymond. The *Tympanis* canker disease of red pine.
2271. Hess, Robert William. The exploitation of new tropical timbers.
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2274. Joiner, James Clinton. Relative efficiency study of the Disston pruning saw and the Porter pointcut pruning shears in red and white pine plantations.
2275. Kampmann, Tiftcrist Steve. Game management in forestry.
2276. Korb, Herbert Emil. Fundamentals in soil erosion and reclamation technique.
2277. Liedman, Louis, Jr. The effect of wood preservation upon the strength properties of wood.
2278. Little, Silas, Jr. Root distribution of white pine in relation to certain physical characteristics of soil profile horizons.
2279. MacGregor, Arthur Emery. Grouse management on a tract in Bethany.
2280. Mazurak, Andrew Peter. A study of the relationship of root distribution to base exchange in soil profiles from the Keene Forest.
2281. Morris, Michael Joseph. Amount and waterholding capacity of litter in relation to age of coniferous stands.
2282. Sergievsky, Vladimir Nicolas. Factors influencing erosion and methods of prevention and control.
2283. Smith, Frank Ferrell. The ash content and the carbon nitrate ratio of leaves of forest plants.
2284. Weimer, John Cameron. Rubber and rubber growing.

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2286. Bacon, E. M. Relation of growing conditions to the specific gravity of northern white pine.
2287. Beckley, W. S. Frost damage to forest trees in the Northeast.
2288. Blackmer, F. H. Public regulation of grazing.
2289. Blackwell, L. P. Selective land utilization in the Piedmont region of South Carolina.
2290. Bruce, D. Seed characteristics of certain hardwoods.
2291. Godfrey, J. F. Factors influencing the germination of yellow poplar.
2292. Gottschalk, F. W. Termites of the United States. A study of the biological characteristics, damage, and control of termites in this country as related to wood technology.
2293. Griswold, F. S. The influence of windthrow on soil morphology.
2294. Hebert, W. A. The Dutch elm disease and its effects on American elm.
2295. Hopkins, G. M. Influence of different seed bed types on natural reproduction of white pine.
2296. House, W. P. The application of rural zoning to some land problems.
2297. Kendig, J. D. The effect of partial cuttings upon the epicormic branching of hardwoods.
2298. McDermid, R. W. The place of Southern pine in the newsprint industry.
2299. Rhodes, A. D. Factors influencing the yield of naval stores.
2300. Siegel, H. J. Formation and stabilization of dunes.
2301. Sisam, J. W. B. Site as a factor in silviculture—its determination with special reference to the use of plant indicators.
2302. Whiteside, J. M. Ecological relations of the mound-building ant, *Formica exsectoides* Forel.
2303. Wick, J. M. The relation of decay to management.
2304. Worthington, N. P. Federal forest credits.

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2306. Anderson, Henry Osgood. Establishment of white pine regeneration on cut-over areas in southern New Hampshire.  
2307. Arnold, Keith. Demonstration forests, their place in American forests.  
2308. Boone, Donald Henry. Farm forestry in relation to soil conservation work in the Northeast.  
2309. Fahnestock, George Reeder. Nicaraguan pine: its strength and related properties, with especial emphasis on comparison with longleaf pine.  
2310. Gaffney, William Stowell. The effects of winter elk browsing on the South Fork of the Flathead River, Montana.  
2311. Hart, Arthur Clifford. The relation of fire scars to decay in living trees.  
2312. Hildman, Alfred Timothy. Cutting practices in the ponderosa pine forests of the Pacific Northwest.  
2313. Jones, Kenneth Edgar. A study of plantation grown red or Norway pine wood.  
2314. Maxwell, Roger Brooke. Recreation and aesthetics on state forests and parks. A study of recreational uses on forest lands together with a recreational plan for Elk Neck State Park.  
2315. Reinhart, Kenneth George. The date of maturity of white pine *Pinus strobus* L. seed.  
2316. Ricard, Richard Joseph. A report on seed production of longleaf pine.  
2317. Rogers, David Harold. A comparison of the fire danger in California and western Montana and Idaho.  
2318. Schaffner, Paul Walter. Artificial pruning in natural stands of eastern white pine.  
2319. Slayback, Harry Roger. Utilization of low grade woods in Connecticut.  
2320.\* Smith, Lloyd Francis. Factors controlling the early development and survival of eastern white pine *Pinus strobus* L. in central New England.  
2321. Stabler, Frederick Elbrey. The motor truck in logging operations of the Southern pine region.  
2322. Stewart, Alban, Jr. Southern pine as a factor in the pulp and paper industry.  
2323. Sylvester, William Arthur. Progress report for a method of pruning.  
2324.\* Tang, Yao. Systematic anatomy of the woods of the Hamamelidaceae.  
2325. Wellner, Charles August. The relationship of stand density to light intensity beneath the canopy in stands of western white pine and associated species.  
2326. White, Zebulon Waters. Aerial photography and its use in forest management.

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2328. Baker, Gregory. The small sawmill industry of the South.  
2329. Bernier, J. L. A study of the water repellent qualities of certain treatments as used for the preservation of wood sash and trim.  
2330. Bickmore, Theodore Roland. Firebreaks, their construction and use in fire control.

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2331. Bromley, Willard S. Economic versus silvicultural selection in northern hardwoods.
2332. Brown, Gilbert Elliott. Silvicultural treatment of the southern yellow pines.
2333. Carey, Dudley Charles. The effect of a commercial creosoting treatment on the major strength properties of green coast-type Douglas fir.
- 2334.\* Coile, Theodore Stanley. Soil changes associated with the succession of loblolly pine on agricultural land in the Piedmont plateau.
2335. Desmond, Richard Clancy. The silviculture of the western white pine.
2336. Farrar, John Laird. The effect of indole butyric acid and other factors on the rooting of winter cuttings of Norway spruce.
2337. Fenton, Richard Horace. Growing and marketing Christmas trees in Connecticut.
2338. Hague, Lloyd Albert. The treatment of lodgepole stands understoried with alpine fir.
2339. Hamilton, James Francis. The effect of a modified full-cell commercial preservative treatment on some of the mechanical properties of air-dry Douglas fir.
2340. Hanaburgh, David Henry. Income possibilities in diversified estate forestry.
2341. Ilg, Robert Lee. A method of pruning progress report.
2342. Korstian, Kenneth Clarence. The amount of forest floor and incorporation of organic matter in several forest types of Piedmont, North Carolina.
2343. Lee, Howard Charles. A land use study of the Sierra Nevada foothills.
2344. Ludwig, Walter Dessem. Southern wood-using industries.
2345. Lull, Howard William. The influence of slash burning on certain characteristics of the soil.
2346. McMahon, Thomas Francis. Sunscald of white pine.
2347. Mish, Edward Theodore. Forest genetics.
2348. Nelson, Arthur William. The use of radio in forest protection.
2349. Nelson, Robert McDowell. A survey of the rubber yielding plants of the world.
2350. Nickless, Lester. Flood control and water conservation in Los Angeles County, Calif.
2351. Noyes, John Henry. Silvicultural management of southern white cedar in Connecticut.
- 2352.\* Parr, Thadeus. *Asterolecanium variolosum* (Ratzeburg) and *Matsucoccus gallicolus* Morrison, two gall-forming coccids and their effect upon the plant tissues.
2353. Preuss, William Paul. "Marketing" of Connecticut woodlots.
2354. Ross, John Buchanan. Crop production of the southern pines.
2355. Short, Robert Dering. Vertical distribution of tree roots in soil profiles.
2356. Sihvonen, Sulo Victor. Farm woodland management for naval stores production.
2357. Smith, Charles Foster. The basis and methods of fuel type mapping in the United States.
2358. Snyder, Harry Miles. A land use study of North Dakota.
2359. Stenzel, George. New England's forest taxation problem.

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- 2361.\* Thomson, Roy Bertrand. An examination of the basic principles of forest valuation and the application of these principles to some problems of forestry in the United States.
2362. Todd, Arthur Stanley. The silviculture of sugar maple *Acer saccharum*.
2363. Townsend, Richard Mayhew. The standardization of log rules.
2364. Tracy, Warren Maeck. A study of plantation-grown northern white pine wood.
2365. Tropp, Charles Clarence. An alignment chart volume table for loblolly pine.
2366. Watson, LeRoy Wilbur, Jr. Controlled burning and the management of longleaf pine.
2367. Wyman, Edgar Pitkin. A study of the co-operative idea, and the possibilities of its application to the farm woodlot problems of Vermont.

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2368. Angell, Herbert Warren. The preservative treatment of fence posts by the tire-tube method. A study of the various steps in the treating process and their effect upon the degree of protection imparted to the posts.
2369. Bethlahmy, Nedavia. Soil structure and its measurement.
2370. Brown, Carroll Thornton. The pulp and paper industry of the Pacific Coast States.
2371. Bruns, Paul Eric and Robert Cowan Perkins. The industrial uses of wood in New Haven and Fairfield Counties.
2372. Cerrone, Lawrence Thomas. Railroads and forestry.
2373. Chamberlin, Henry Howard. The relative cost of protection from forest enemies on the Eli Whitney Forest.
2374. Cheston, Charles Edward. Rehabilitation of the 1938 hurricane damaged forest areas in New England.
2375. Demont, Ralph Lewis. Soil changes under pine stands on old fields in Connecticut.
- 2376.\* Diller, Jesse Dennis. The *Atropellis* canker of Eastern pines induced by *Atropellis tingens*.
- 2377.\* Englerth, George Henry. Decay of western hemlock in western Oregon and Washington.
2378. Griffith, Richard Droege. Educating the farmer to farm forestry.
2379. Hayes, George Lloyd. The moisture content of large sized fuels as an index of intraseasonal and seasonal fire danger severity.
2380. Hendrix, John Walter. Occurrence of *Fomes annosus* in certain New England forest plantations.
2381. Hooker, Leland Worthington. Marketing New England farm hardwoods.
2382. Irwin, Alan Locke. Rural zoning: its nature and relation to forest taxation.
- 2383.\* Kimmey, James William. Deterioration of fire-killed Douglas fir.
2384. Lauridsen, Morten Johannes. Growth of residual ponderosa pine and Douglas fir in south-central Washington after partial cutting.
2385. Lintean, Joseph André. Silviculture of some species of Eastern Canada.
2386. Perkins, Robert Cowan and Bruns, Paul Eric. The industrial uses of wood in New Haven and Fairfield Counties.

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- 2387.\* Proctor, Phimister. Penetration of the walls of wood cells by the hyphae of wood-destroying fungi.  
2388. Ralston, Jesse Guerdon. A study of vegetative propagation of white pine.  
2389. Rose, Richard Collin. Utilization of low value wood for fuel.  
2390. Slocomb, Jack Tibbetts. The position of the town forest in New England's forest economy.  
2391. Snelling, Robert Edwin. Management of longleaf and slash pines for the production of naval stores, lumber and other wood products.  
2392. Spurr, Stephen Hopkins. Plant influence on soil reaction.  
2393.\* Stevens, Terrill Dryden. Forest succession on upland soils in the New Jersey pine barrens.  
2394. Wehrle, Armin Albert. Strength tests of plantation-grown northern white pine.

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2396. Arnold, Ralph Alexander. The place of wood in the plastics industry.  
2397. Binger, Charles Robert. A study of crown form in its relation to thinning practices.  
2398. Blackwood, John Benjamin. The relative position of wildlife in forestry.  
2399. Breck, Robert Williams. Lumber production in New England.  
2400. Brown, John Willcox. Forest history of Mount Moosilauke, New Hampshire.  
2401. Chalfant, Jesse Wayne. The relative regional forest fire danger for nine regions of the United States.  
2402. Condit, Gordon Ralph. Advance reproduction in upland hardwood and hemlock-hardwood stands in southern Connecticut.  
2403. Cooper, Kirk Royce. Recent developments in forest fire control, equipment and methods.  
2404. Cowles, Donald Harry. Retail lumber distribution.  
2405. Crow, Alonzo Bigler. Distribution, establishment, growth and management of loblolly pine in the northeast part of its range.  
2406. Harding, Robert Weld. The beneficial effects of certain birds in the destruction of insects.  
2407. Hopkins, William Clifford. Stability of forest land ownership in the United States, a study of the shifting ownership of forest lands, of the causes back of it, and the results thereof.  
2408.\* Jacobs, Maxwell Ralph. The growth stresses of woody stems.  
2409. Kernam, Henry Sherrill. The management of spruce types for pulpwood in northeastern United States.  
2410. Klinkam, John Arthur. Selection in logging.  
2411. McCamey, Ben Franklin. A preliminary survey of the wildlife in the Eli Whitney Forest.  
2412. McGuire, John Richard. The Sylamore Experimental Forest. (Ark.)  
2413.\* Mielke, James Leroy. Epidemiology of white pine blister rust in western North America.  
2414. Olson, George Edwin. The treatment of fence posts by the "tire-tube" method.

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2415. Ostrom, Carl Eric. Integrated forest production: its applicability to the second-growth northern hardwood forests of the Allegheny Plateau.
2416. Petersen, Walter Gehl. A Douglas fir stand analysis study.
2417. Poling, Arthur Ashbury. The growth of red pine and related soil factors.
2418. Schuett, Frederick Henry. Lumber values in Connecticut hardwoods.
2419. Sinclair, Robert Young. The management of spruce with particular reference to northern New England.
2420. Starker, Bruce. Timber stand improvement in the United States.
2421. Stevens, Jay Morgan. Douglas fir plywood.
2422. Swofford, Thomas Franklin. Certain characteristics of some Connecticut soils.
2423. Tyler, Howard Walter. The position of white ash in the farm woodlot of the northeast.

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2425. Bandekow, Richard Justus von Lengerke. The silviculture of Douglas fir in the Douglas fir region.
2426. Chalfen, Melvin Harold. The use of New England timbers for piling.
2427. Clark, Robert Henry. Factors that influence the management of short-leaf pine.
2428. Gray, John Lewis. Partial cutting versus stripping of white pine based on a study in York County, Maine.
- 2429.\* Huberman, Morris Abraham. Sunscald of eastern white pine *Pinus strobus* L.
2430. Jorgensen, Richard Norman. Sources and utilization of wood waste in logging and milling, with special reference to conditions in the Northwest.
2431. Lachance, Paul-Emile. Canadian-American wood trade.
2432. McNight, Sidney. The problems of forest industry and regulation as a solution.
2433. Martin, Robert Ansel. Vegetative propagation of forest trees.
2434. Nelson, Ralph Kenneth. Development of forest management on the Crossett Lumber Company properties.
2435. Pearson, Clifford Harold. Volume tables for Connecticut hardwoods.
2436. Sakornbut, Songe Sook. Important forest trees of Thailand.
2437. Stevens, Stanley Francis. Glues, preservatives and fireproofing, the effect of preservatives on glue joints.
2438. Weiss, Siegfried William. Deterioration of hurricane-felled timber in southern New England.
2439. West, Richard Fussell. The utilization and treatment of highway posts in Connecticut.
2440. Williston, Hamlin Lapham. The silviculture and utilization of red maple with special reference to Connecticut.

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- 2441.\* Buchanan, Thomas Stewart. Characteristics of the little-leaf disease of Southern pines.
2442. Buckland, Donald Channing. A *Myxosporium* disease of western hemlock.
2443. Frykman, Joel Lee. The secondary species of the Inland Empire; their properties and present and possible future use.

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2444. Klevens, Milton Jon. The brown stains of wood.  
2445.\* Kraemer, John Hugo. Growth-strength relations of red pine; an investigation of the effects of various influencing factors upon the mechanical properties of the wood of *Pinus resinosa* Solander.  
2446. Turner, Frederick John. Woods having pores in dendritic or flame-like arrangement.

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2447. Holmes, William Henry. The amount and distribution of compression wood in leaning white pine trees.  
2448. Martineau, René. Study of the small pine sawyer *Monochamus scutellatus* (Say).  
2449. Morais, Lucien. Forestry on Quebec farms.  
2450.\* Ostrom, Carl Eric. Retardation of shoot development of forest nursery stock by treatment with plant-growth regulators.

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- 2451.\* Buckland, Donald Channing. Investigations of decay in western red cedar in British Columbia.  
2452.\* Tryon, Earl Haven. Effect of charcoal on certain physical, chemical and biological properties of forest soils.

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2453. Bryden, Clifford Maxwell. Federal forestry legislation, 1930-1945.  
2454. Burns, Paul Yoder. Ecology and silviculture of shortleaf pine.  
2455. Cooper, James Robert. The silvicultural management of longleaf pine.  
2456. Elston, Judson Donald. Glued laminated wood.  
2457. Graves, Kenneth Kristen. The glued laminated arch.  
2458. Hicks, Harold Wheeler. The role of forest vegetation and forestry in soil and water conservation.  
2459. Hupman, Carl Brantner, Jr. The development and production of plantation rubber by United States private enterprise.  
2460. Langevin, Joseph François Raymond. Properties of wood and their uses with special attention to the native woods of Quebec.  
2461. Leach, Donald Joshua. Certain methods of improving the properties of wood.  
2462.\* Lintean, André (Joseph). Factors affecting germination and early survival of yellow birch *Betula lutea* Michx. in Quebec.  
2463. McGillivray, John Oliver. Hardwood plywood.  
2464. Marshall, Robert Bamber. Fundamentals and recent developments in forest photocruising.  
2465. Maus, Calvin Donald. The development of recreational use on the national forests of the United States.  
2466. Moore, Kenneth Edward. Utilization aspects of red pine thinnings in Connecticut.  
2467. Moore, Raymond Robert. Tree farms, an industrial approach to forestry.  
2468. Moulds, Francis Robert. Increasing intensity of utilization and forest management.  
2469. Pochan, Michael, Jr. Developing forest cooperative associations into going concerns.  
2470. Poletika, Nicholas Vladimir. Design and fabrication with sandwich type materials.

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2471. Roy, Louis. Utilization of sawmill waste.  
2472. Smith, David Martyn. Storm damage in New England forests.  
2473. Stanley, George Woods. An interpretation of the principles and characteristics of aerial photogrammetry and photography as applied to forest management.  
2474.\* Villeneuve, Georges Oscar. Climatic conditions of the Province of Quebec and their relationship to the forests.  
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