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TIMBER-PRODUCTS

HARVESTING

IN

EASTERN UNITED STATES

AND CANADA

Hoyt A. Wheeland

U. S. DEPARTMENT OF AGRICULTURE • FOREST SERVICE
Central States Forest Experiment Station, Columbus, Ohio

FOREWORD

This bibliography is the result of an extensive search for literature dealing with harvesting of timber products in eastern United States. In searching the literature, a number of bibliographies were found containing sections devoted to harvesting, but the listings in these sections were often quite general and therefore of limited use to persons interested in this particular subject. The present bibliography should be of value to anyone interested in harvesting equipment and techniques, and in what research has been done in the harvesting field, especially in the eastern United States.

Since this is the first known bibliography of its kind, some important harvesting publications may have been omitted. We would appreciate learning of any such omissions or any other errors.

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BIBLIOGRAPHY OF TIMBER PRODUCTS HARVESTING
IN EASTERN UNITED STATES AND CANADA

by

Hoyt A. Wheeland

Research Forester

October 1964

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STUDIES DEALING WITH INDIVIDUAL HARVESTING PHASES

FELLING, LIMBING, BUCKING

1. Artman, J. O.
1946. Log production by chain and crosscut saws. Pulp and Paper Mag. Canada 47(8): 107.
2. Cedergren, J. H.
1962. Cost analysis of chain saw operation in pulpwood preparation. Amer. Pulpwood Assoc. Tech. Paper 62-95, 2 pp.
3. Downs, Albert A.
1942. The influence of silvicultural practice on the costs of felling and bucking loblolly pine pulpwood. Jour. Forestry 40: 37-41.
4. Food and Agriculture Organization.
1956. Recent costs of owning and operating power saws. Forestry Equip. Note C.17.56, 1 p.
5. McClay, T. A.
1953. Relation of tree size to production rates when cutting pine pulpwood with a chain saw. U.S. Forest Serv. Southeast. Forest Expt. Sta. Res. Note 28, 2 pp.
6. Pond, James D.
1945. Log cutting by inexperienced workers. Jour. Forestry 43: 23-24.
7. Pope, Clem L.
1954. Effect of breakage on felling and bucking costs. Timberman 56(11): 70, 72, 74, 76.
8. Trousdell, Kenneth B.
1947. Some effects of a piecework system on felling and bucking costs in eastern North Carolina. South. Lumberman 175(2201): 190-192.
9. Wiesehuegel, E. G.
1946. Power chain saws and manual crosscut saws in the production of hardwood logs. South. Lumberman 172(2155): 46-50.
10. Yoneda, Yukitake, Nakamura, Eiseki, Tsuji, Takamichi, Watanabe, Shozaburo, and Ishii, Kunihiro.
1963. [A study of the application of the normal work output of forest operations: A master table of standard data method in chain saw felling and bucking.] Govt. Forest Expt. Sta. Bul. 149: 214-217. Tokyo.
[In Japanese. English summary.]

SKIDDING

11. Beaumann, Herman.
1933. Economical tractor yarding distances. Timberman 34(9): 30, 32.
12. Belotelkin, K. T., Reineke, L. H., and Westveld, M.
1941. Skidding in selective pulpwood logging. U.S. Forest Serv. Northeast. Forest Expt. Sta. Tech. Note 40, 3 pp.

13. Bennett, W. D.
1962. Forces involved in skidding full tree and tree length loads of pulpwood. Pulp and Paper Res. Inst. Canada Woodlands Res. Index 137, 39 pp.
14. Cobb, B. C.
1957. Skidding with rubber-tired wheel tractors in the Tennessee Valley. TVA Forestry Invest. Tech. Note 26, 16 pp.
15. Herrick, David E.
1955. Tractive effort required to skid hardwood logs. Forest Prod. Jour. 5(8): 250-255.
16. _____ and Deitschman, Glenn H.
1956. Effect of tractor logging upon hardwood stands. Forest Prod. Jour. 6(10): 403-408.
17. Hutnik, Russell J., and Weitzman, Sidney.
1957. Gentle-grade roads mean faster skidding. U.S. Forest Serv. Northeast. Forest Expt. Sta. Res. Note 71, 3 pp.
18. Johnson, W. H., Van Doren, D. M., Jr., Brown, W. N., and McLeod, H. E.
1963. Big tractor tires reduce soil compaction. Ohio Farm and Home Res. 48(1): 3, 12-13.
19. McCraw, W. E.
1962. A suggested method of measuring variations of factors affecting skidding production. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2132(B-1), Ann. Mtg. Release 8, 6 pp.
20. Trimble, George R., Jr., and Barr, Carl R.
1960. Cost of skid roads for arch logging in West Virginia. U.S. Forest Serv. Northeast. Forest Expt. Sta. Res. Note 97, 4 pp.
21. Worthington, Robert E.
1939. Costs of tractor logging in southern pine. U.S. Forest Serv. Cent. States Forest Expt. Sta. Tech. Bul. 700, 64 pp.
22. Zasada, Z. A.
1949. Cost of skidding jackpine. U.S. Forest Serv. Lake States Forest Expt. Sta. Tech. Note 322.

LOADING

23. Bulgrin, Erwin H.
1957. A survey of pulpwood loading and hauling with self-loading trucks equipped with the Hiabob hydraulic pulpwood loader. Masters thesis on file at School of Natural Resources, Mich. Univ., 46 pp.
24. Hensel, J. S.
1963. Cost and maintenance analysis: Prentice hydraulic pulpwood loaders. Amer. Pulpwood Assoc. Tech. Release 63-R-16, 4 pp.
25. Owen, Ivan M.
1962. Cost analysis of truck mounted hydraulic loaders in pulpwood handling. Amer. Pulpwood Assoc. Tech. Paper 62-93, 2 pp.

TRANSPORTING

26. Byrne, James J., Nelson, Roger J., and Googins, Paul H.
1956. Cost of hauling logs by motor truck and trailer (Revised). U.S. Forest Serv. Pacific Northwest Forest and Range Expt. Sta. 116 pp.
27. _____
1960. Logging road handbook: The effect of road design on hauling costs. U.S. Dept. Agr. Handb. 183, 65 pp.
28. Reynolds, R. R.
1933. Truck logging of pine in Mississippi and Louisiana. U.S. Forest Serv. South. Forest Expt. Sta. Paper 28, 10 pp.
29. _____
1940. Log and pulpwood production costs as affected by type of road. South. Lumberman 161(2033): 162-165.
30. _____
1940. Pulpwood and log production costs as affected by type of road. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 96, 11 pp.
31. _____
1940. Pulpwood and log production costs as affected by type of road. Jour. Forestry 38: 925-931.
32. _____
1941. Economical spacing of forest roads. South. Lumberman 163(2057): 165-168.
33. Swan, D. A.
1963. The New York pulpwood truck rack study. Amer. Pulpwood Assoc. Tech. Release 63-R-54, 4 pp.
34. Trimble, George R., Jr., Gibbs, Carter B., and Barr, Carl R.
1963. Truck roads and small forest products. Northeast. Logger 11(12): 16-17, 40-41, 46-47.

STUDIES DEALING WITH MORE THAN ONE HARVESTING PHASE

35. Ashe, W. W.
1926. Relation of size of trees to logging costs, stumpage values and profits. South. Lumberman 125(1620): 31-32.
36. Barrett, Leonard I., and Renshaw, James F.
1939. Factors affecting the costs of producing oak cordwood. Jour. Forestry 37: 947-954.
37. Bond, W. E.
1947. Costs and realization values in producing pulpwood. U.S. Forest Serv. South. Forest Expt. Sta. Forestry Note 52, 4 pp.
38. Campbell, Robert A.
1946. Pine pulpwood production: A study of hand and power methods. U.S. Forest Serv. Southeast. Forest Expt. Sta. Tech. Note 66, 19 pp.
39. _____
1952. Timber cutting and skidding costs in the southern Appalachians. South. Lumberman 185(2321): 189-191.

40. Campbell, Robert A.
1953. Logging methods and costs in the southern Appalachians. U.S. Forest Serv. Southeast. Forest Expt. Sta. Paper 30, 29 pp.
41. _____
1954. Labor requirements as influenced by volume cut per acre on the Bent Creek Experimental Forest. U.S. Forest Serv. Southeast. Forest Expt. Sta. Res. Note 51, 2 pp.
42. Guttenberg, Sam, and Perry, Joe D.
1957. Pulpwooding with less manpower. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 154, 34 pp.
43. Hamilton, Henry R.
1963. Pulpwood world: Research takes aim at harvesting and wood flow problems in the South. Pulp & Paper 37(1): 51-53.
44. Hasel, A. A.
1946. Logging cost as related to tree size and intensity of cutting in ponderosa pine. Jour. Forestry 44: 552-560.
45. Holekamp, J. A.
1956. Man days to produce pulpwood in southwestern region. Amer. Pulpwood Assoc. Southwest. Tech. Com. Mtg. Minutes: 27-30.
46. _____
1962. Pulpwood harvesting efficiency related to volume cut per acre. Amer. Pulpwood Assoc. Tech. Release 62-R-44, 5 pp.
47. Jensen, Victor S.
1940. Cost of producing pulpwood on farm woodlands of the Upper Connecticut River Valley. U.S. Forest Serv. Northeast. Forest Expt. Sta. Occas. Paper 9.
48. _____
1941. Pulpwood production costs on small operations in the Upper Connecticut River Valley. Jour. Forestry 39: 991-993.
49. Jiles, Robert A., Jr.
1960. Hardwood logging methods and costs in the Tennessee Valley. TVA Rpt. 232-60, 35 pp.
50. Osborn, R. M.
1951. Costs of producing mine props. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 124, 22 pp.
51. Ralston, Robert A.
1953. Basal area as a guide in estimating logging costs. Jour. Forestry 51: 886-890.
52. Rawls, Ike W.
1952. Large logs cost less to log than small logs. South. Lumberman 185(2321): 125-126.
53. Reynolds, R. R., Bond, W. E., and Kirkland, Burt P.
1944. Financial aspects of selective cutting in the management of second growth pine-hardwood forests west of the Mississippi River. U.S. Dept. Agr. Tech. Bul. 861, 118 pp.

54. Reynolds, R. R., Bond, W. E., and Kirkland, Burt P.
1945. Pulpwood and log-production costs in 1945 as compared with 1940. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 107, 7 pp.
55. Bond, W. E., and Kirkland, Burt P.
1951. Pulpwood production costs in southeast Arkansas, 1950. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 121, 17 pp.
56. Roach, Benjamin A.
1956. Logging costs for central hardwoods. South. Lumberman 193(2409): 53-54.
57. Roe, Arthur L., and Squillace, A. E.
1953. Effect of cutting methods on logging costs in larch-Douglas-fir. Jour. Forestry 51: 799-802.
58. Schnell, Robert L.
1961. Harvesting pine pulpwood in the Tennessee Valley. TVA Forestry Invest. Rpt. 238-61, 20 pp.
59. Harvesting pine pulpwood with the "Big Stick" loader. Pulpwood Prod. and Saw Mill Logging 11(1): 6, 8, 10.
60. Harvesting costs for hardwood pulpwood in Tennessee Valley. Pulpwood Prod. and Saw Mill Logging 12(2): 22, 24, 25.
61. Shames, L. M.
1946. Logging and milling studies in the Southern Appalachian Region: Part 1 - Cost analysis. U.S. Forest Serv. Southeast. Forest Expt. Sta. Tech. Note 62, 17 pp.
62. Logging and milling studies in the Southern Appalachian Region: Part 2 - Time studies. U.S. Forest Serv. Southeast. Forest Expt. Sta. Tech. Note 63, 20 pp.
63. Silversides, C. R.
1960. The influence of tree characteristics on logging efficiency and cost. Pulp and Paper Mag. Canada 61(8): 133-139.
64. Walbridge, Thomas Alexander, Jr.
1960. The design of harvesting systems and machines for use in pulpwood stands of the Tennessee Valley as dictated by intensive forest management. Ph. D. diss., Mich. Univ., 279 pp.

EQUIPMENT AND/OR TECHNIQUES INVOLVED IN INDIVIDUAL HARVESTING PHASES

FELLING, LIMBING, BUCKING

65. Carey, Eugene E.
1962. Power saw improvements. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2141(B-7-c), Ann. Mtg. Release 17, 3 pp.
66. Challenger, J. W.
1942. Five years of power sawing. Timberman 44(1): 10-13.

67. Food and Agriculture Organization.
1957. I. Tree limbing machine. Forestry Equip. Note C.25.57, 2 pp.
68. _____
1957. I. A safer method of directional felling control with the chain saw. Forestry Equip. Note C.26.57, 2 pp.
69. Holekamp, J. A.
1963. Beaugard for safer chain saw operation. Amer. Pulpwood Assoc. Tech. Release 63-R-51, 2 pp.
70. Miller, R. H. P., and Fobes, E. W.
1947. Log bucking yards. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-4, 2 pp.
71. Pulpwood Production and Saw Mill Logging.
1964. Proper saw chain maintenance vital to sawing efficiency. 12(4): 24, 26.
72. Roller, Fred.
1956. Influence of logging techniques on manpower requirements, 1950-1960: Power saws. Amer. Pulpwood Assoc. Southwest. Tech. Com. Mtg. Minutes: 31-33.

SKIDDING

73. Alexander, H. E.
1962. Small skidder forum: Bombardier Red Ram skidder. Canad. Pulp and Paper Assoc. Woodland Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 6-7.
74. Berlyn, R. W., and Keen, R. E.
1964. A method of recording vehicle activity. Pulp and Paper Res. Inst. Canada Woodlands Res. Index 148, 18 pp.
75. Cadenhead, E. S.
1963. Small wheeled skidders. Pulp and Paper Mag. Canada 64(4): WR178-WR182, WR207.
76. Church, R. D. S.
1962. Small skidder forum: Timberland's Timberjack skidder. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 7-10.
77. Currie, D. V.
1954. The role of the small tractor in the bush. Pulp and Paper Mag. Canada 55(7): 156, 159.
78. Davidson, J. C.
1962. Small skidder forum: The Oliver OC-4 3D tractor. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 1-6.
79. Day, Ralph K.
1948. A "jeep logger." U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-25, 2 pp.
80. Desy, Julien.
1962. Small skidder forum: Maintenance. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 12.

81. Dunne, J. F., Shannon, R. E., McCraw, W. E., and Haslett, J. W.
1959. Logging equipment developments. Canad. Pulp and Paper Assoc. Wood-lands Sect. Index 1856(B-8-a), Ann. Mtg. Release 13, 6 pp.
82. Fobes, E. W.
1947. Tractor skidding attachments. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-11, 1 p.
83. 1947. Straddle logging tractor. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-16, 1 p.
84. 1947. Transporting logs by skyhook. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-17, 2 pp.
85. 1947 Inexpensive logging incline. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-20, 2 pp.
86. 1947. Hydraulic skidding attachment. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-22, 2 pp.
87. 1950. Jack-knife sulky. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-41, 2 pp.
88. 1951. Skidding and bunching tractor. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-42, 1 p.
89. 1951. Hand-operated sulky. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-48, 2 pp.
90. 1952. Rubber-tired skidders. U.S. Forest Serv. Forest Prod. Lab. Rpt. D1637-50, 2 pp.
91. 1957. Combined bunching and skidding. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-24, 2 pp.
92. 1957. Aerial skidding by gravity. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-30, 2 pp.
93. 1957. Increased traction for wheeled tractors. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-37, 1 p.
94. 1960. Wyssen cable system. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-27, 5 pp.
95. 1960. Single line continuously moving cable systems. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-29, 4 pp.

96. Food and Agriculture Organization.
1959. I. Lasso motor winch. II. Radio-controlled towing winch. Forestry Equip. Note C.29.59, 2 pp.
97. _____
1960. I. The Model 300 Timberskidder. II. The Michigan Model 75 Timber Tractor. Forestry Equip. Note C.31.60, 2 pp.
98. _____
1960. Powered sulky. Forestry Equip. Note C.32.60, 2 pp.
99. _____
1961. Skidding carriage for small-sized roundwood. Forestry Equip. Note C.35.61, 2 pp.
100. _____
1961. Ground skidding with single and double drum winches. Forestry Equip. Note C.36.61, 3 pp.
101. _____
1961. Equipment for skidding by horse. Forestry Equip. Note C.37.61, 15 pp.
102. Genge, G. A., and McKay, M. R.
1959. Michigan PL-75 on 1958 operations. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1852(B-8-a), Ann. Mtg. Release 9, 6 pp.
103. Gray, Donald W.
1957. Tree-length wheeled skidding. Forest Prod. Jour. 7(10): 386-389.
104. Harkness, W. D.
1962. Tree-length cable yarding: A report on the comparative performance in loose wood and bunched wood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2142(B-8-g), 4 pp.
105. Hensel, J. S.
1959. Garrett Tree Farmer. Amer. Pulpwood Assoc. Tech. Release 59-R-15, 4 pp.
106. _____
1962. Garrett Tree Farmer (Progress Report No. 1). Amer. Pulpwood Assoc. Tech. Release 62-R-31, 3 pp.
107. _____
1963. A homemade integral logging arch for skidding tree lengths with a small crawler tractor. Amer. Pulpwood Assoc. Tech. Release 63-R-4, 2 pp.
108. Holekamp, J. A.
1963. The Franklin Logger wheeled tractor. Amer. Pulpwood Assoc. Tech. Release 63-R-34, 4 pp.
109. Keys, G. T.
1960. A comparison with Canadian practice of Russian skidding tractors and their productivity. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1968(B-8-f), Mechanization Note 33, 3 pp.

110. Kotila, P. E.
1962. Experimental logging report: Report on articulate frame skidders (Timberjack Model 200, Pettibone Model Master 4 Skidder, and the Garrett C-4). Amer. Pulpwood Assoc. Tech. Paper 62-94, 3 pp.
111. Kusz, William.
1946. Tractor logging reduces costs. South. Lumberman 173(2177): 156-159.
112. Lentz, G. H.
1931. Logging bottomland hardwoods with Caterpillar tractors. South. Lumberman 142(1796): 38.
113. Logan, B. A.
1959. Bunching studies and application of results. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1860(B-8-a), Ann. Mtg. Release 17, 2 pp.
114. McKay, M. R.
1962. Small skidder forum: The Garrett Tree Farmer. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 10-11.
115. Miller, R. H. P., and Fobes, E. W.
1947. Arch mounted on crawler tractor. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-1, 2 pp.
116. _____ and Fobes, E. W.
1947. Logging sulkies. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-5, 2 pp.
117. Moore, W. W.
1962. Small skidder forum: New equipment necessitates new skills. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2140(B-8-g), Ann. Mtg. Release 16: 11-12.
118. The Northern Logger.
1964. Equipping the crawler tractor for skidding. 12(10): 26-27.
119. Pope, Clem L.
1954. How to control costs of tractor skidding. Timberman 55(10): 66, 68, 70.
120. Pulp & Paper.
1963. Pulpwood world: Skidder turns in 16 feet. 37(8): 87.
121. Pulpwood Production and Saw Mill Logging.
1963. Small crawlers make stumpage cheaper for Florida producers. 11(7): 10-12.
122. _____
1963. The Franklin Logger. 11(9): 4, 6.
123. _____
1963. Protecting skidding tractors. 11(9): 16, 18-19.
124. _____
1963. "Short Dog" - poor man's skidder. 11(10): 4, 6.
125. _____
1964. What every logger should know about tractor winches. 12(3): 38-39.

126. Rolston, Kenneth S.
1962. Cable skidders in the Carolina mountains. Amer. Pulpwood Assoc. Tech. Release 62-R-40, 5 pp.
127. _____
1962. Acco Double-Bite log choker chain. Amer. Pulpwood Assoc. Tech. Release 62-R-48, 2 pp.
128. _____
1963. Homemade "forks" for small crawlers. Amer. Pulpwood Assoc. Tech. Release 63-R-9, 4 pp.
129. _____
1963. Oliver tractor with Flex-Air-Track (Progress Report No. 2). Amer. Pulpwood Assoc. Tech. Release 63-R-67, 4 pp.
130. Salter, R. D.
1956. Influence of logging techniques on manpower requirements, 1950-1960; Tractors and tractor systems. Amer. Pulpwood Assoc. Southwest, Tech. Com. Mtg. Minutes: 34-35.
131. Schroeder, Darrell.
1963. Comparative yarding costs: Tractor versus high-lead. Forest Indus. 90(5): 74-75.
132. Shreeve, F. T., and Biggar, J. C.
1960. Bunching of tree lengths and wheel-skidding bunched wood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1969(B-1). Also Pulp and Paper Mag. Canada 1960 Conv. Issue: 275-279.
133. Simmons, Fred C.
1963. Wheel tractor logging. Forest Prod. Jour. 13(8): 313-317.
134. Southern Lumberman.
1963. New model skid tractor brings in more logs. 207(2580): 36, 38-39.
135. Swan, D. A.
1961. The Model 200 Timberjack rubber tired skidding tractor. Amer. Pulpwood Assoc. Tech. Release 61-R-25, 3 pp.
136. _____
1963. Maine Steel's full hydraulic winch. Amer. Pulpwood Assoc. Tech. Release 63-R-13, 4 pp.
137. Taylor, Heyward T., Jr., and Richardson, Boone Y.
1963. Harvest and transport of pulpwood: Office report. U.S. Forest Serv. South. Forest Expt. Sta. Auburn Forest Engin. Res. Lab., 13 pp.
138. Turner, W. A.
1959. Operating costs for wheeled tractors. Amer. Pulpwood Assoc. Tech. Paper 59-P-47, 3 pp.
139. Wallace, Oliver P.
1954. Is your horse pulling his load on the logging job? Northeast. Logger 3(3): 12-13, 37.

Prehaul

140. Altman, James A.
1963. Load transfer method of pulpwood logging. Amer. Pulpwood Assoc. Tech. Release 63-R-3, 4 pp.
141. Cooper, J. H.
1964. Pulpwood dray. Pulp and Paper Mag. Canada 65(2): WR40-WR41.
142. Fobes, E. W.
1949. Powered trailer for wheeled tractor. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-35, 2 pp.
143. Forest Industries.
1963. Logging and forestry know-how: A new mobile logger yards, sorts, loads, pulls trailer. 90(5): 68.
144. _____
1963. Vehicle rolls on air bag system in swamp log show. 90(9): 56-57.
145. Hensel, J. S.
1963. A homemade pulpwood forwarding unit. Amer. Pulpwood Assoc. Tech. Release 63-R-19, 3 pp.
146. _____
1964. "Holmade" skidder. Amer. Pulpwood Assoc. Tech. Release 64-R-8, 3 pp.
147. _____
1964. Airplane tires for pulpwood woods trailers. Amer. Pulpwood Assoc. Tech. Release 64-R-15, 2 pp.
148. Miller, R. H. P., and Fobes, E. W.
1947. Hydraulic log cart. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-7, 2 pp.
149. The Northern Logger.
1963. Masters of the wilderness: Rolligon Corporation. 12(5): 12, 27, 31.
150. Pulpwood Production and Saw Mill Logging.
1963. Walter Jarck's self-propelled pallet carrier. 11(2): 18, 20.
151. _____
1963. Big-wheeled cart solves problem of scattered trees. 11(8): 13-14.
152. _____
1963. The cantilever logging tractor. 11(10): 14, 16-17.
153. Pulpwood Production and Saw Mill Logging.
1964. A report on the "Wood Tiger." 12(3): 6, 8-9.
154. Rolston, Kenneth S.
1962. Catawba "702" experimental wheel tractor. Amer. Pulpwood Assoc. Tech. Release 62-R-9, 6 pp.
155. _____
1962. Homemade pallets and cart on a northwestern Pennsylvania operation. Amer. Pulpwood Assoc. Tech. Release 62-R-15, 4 pp.

156. Rolston, Kenneth S.
1963. Prehauling with a 6 x 6 personnel carrier. Amer. Pulpwood Assoc. Tech. Release 63-R-10, 3 pp.
157. _____
1963. Prentice loaders on a Pennsylvania operation. Amer. Pulpwood Assoc. Tech. Release 63-R-59, 4 pp.
158. _____
1963. The Horton Go-getter. Amer. Pulpwood Assoc. Tech. Release 63-R-65, 4 pp.
159. Southern Lumberman.
1963. "Earth thing" solves logging problems. 207(2575): 32-33.
160. Swan, D. A.
1963. A new concept in pulpwood trailer carts. Amer. Pulpwood Assoc. Tech. Release 63-R-48, 3 pp.
161. _____
1964. "Packsack" forwarding of 8' wood with wheeled skidders. Amer. Pulpwood Assoc. Tech. Release 64-R-10, 2 pp.

LOADING

162. Altman, James A.
1959. Pulpwood conveyor-loader. Amer. Pulpwood Assoc. Tech. Release 59-R-34, 2 pp.
163. _____
1960. What happened to the Montague Loader? Amer. Pulpwood Assoc. Tech. Release 60-R-32, 6 pp.
164. _____
1962. The Tongrapple. Amer. Pulpwood Assoc. Tech. Release 62-R-28, 4 pp.
165. _____
1963. Pulpwood end loader. Amer. Pulpwood Assoc. Tech. Release 63-R-20, 3 pp.
166. Fobes, E. W.
1948. Preloading pulpwood racks. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-28, 2 pp.
167. _____
1949. Self-loader for long logs. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-32, 2 pp.
168. _____
1949. Improved log loading tongs. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-33, 1 p.
169. _____
1949. Halftrack log loader. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-34, 2 pp.
170. _____
1949. Inexpensive crane-type loader. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-38, 1 p.

171. Fobes, E. W.
1949. Hydraulic hoist log loader. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-39, 2 pp.
172. _____
1951. Mobile pulpwood conveyor. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-43, 2 pp.
173. _____
1951. Front-end loaders. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-46, 2 pp.
174. _____
1953. Cross-haul loading device. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-54, 2 pp.
175. _____
1953. Truck-loading booms. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-55, 5 pp.
176. _____
1957. Racking short saw logs for truck loading. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-31, 2 pp.
177. Food and Agriculture Organization.
1955. Two types of equipment for loggers. Forestry Equip. Note C.8.55, 2 pp.
178. _____
1960. I. Tractor-mounted loading boom. II. The pulpwood "Big Stick" loader. Forestry Equip. Note C.30.60, 2 pp.
179. Forest Industries.
1964. Versatility, speed are shown by truck-mounted loaders. 91(3): 72-74.
180. Hensel, J. S.
1962. Gafner hydraulic pulpwood loaders. Amer. Pulpwood Assoc. Tech. Release 62-R-38, 4 pp.
181. _____
1963. Prentice hydraulic pulpwood loaders. Amer. Pulpwood Assoc. Tech. Release 63-R-14, 3 pp.
182. Kee, David N.
1953. Improved hand hooks. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-58, 1 p.
183. Lockard, C. R.
1949. Railroad-car log loader. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-36, 2 pp.
184. Miller, R. H. P., and Fobes, E. W.
1947. Self-loading semi-trailers. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-3, 2 pp.
185. _____ and Fobes, E. W.
1947. End-loading semi-trailer. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-6, 2 pp.

186. Miller, R. H. P., and Fobes, E. W.
1947. Preloading detachable truck body. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-9, 2 pp.
187. _____ and Fobes, E. W.
1947. Dump trucks for logging. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-15, 2 pp.
188. Pulpwood Production and Saw Mill Logging.
1963. Another pulpwood loader. 11(5): 11.
189. _____
1963. Twelve truckloads daily with Prentice loader. 11(7): 6, 8.
190. _____
1963. Flexibility with a homemade loader. 11(7): 21-22.
191. _____
1964. A mechanical pulpwood loader for everyone. 12(3): 18-19.
192. Rolston, Kenneth S.
1962. "Big Stick" loader with cable rehaul for long wood. Amer. Pulpwood Assoc. Tech. Release 62-R-14, 3 pp.
193. _____
1963. Twyman portable pulpwood conveyor. Amer. Pulpwood Assoc. Tech. Release 63-R-41, 4 pp.
194. Shepard, H. M.
1956. Hiabob pulpwood loader (Progress Report). Amer. Pulpwood Assoc. Release 257, 4 pp.
195. _____
1957. Hiabob C-10 pulpwood loader. Amer. Pulpwood Assoc. Release 324, 3 pp.
196. Swan, D. A.
1963. Simplified rigging for sling handling of wood. Amer. Pulpwood Assoc. Tech. Release 63-R-52, 1 p.

TRANSPORTING

197. American Pulpwood Association.
[n.d.] Pulpwood truck driving. Training Guide No. 7, 28 pp.
198. _____
[n.d.] Truck drivers notebook. 22 pp.
199. Ashton, R. V.
1963. The pulpwood trucking situation as affected by State regulations in New Hampshire. Amer. Pulpwood Assoc. Tech. Paper 63-P-78, 3 pp.
200. Bennett, Arthur L.
1941. Construction of low cost pulpwood roads. Jour. Forestry 39: 903-906.
201. Biggar, J. C.
1962. Rail shipment of pulpwood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2188(B-8-a), 2 pp.

202. Buell, A. F.
1962. General remarks. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2183(H-2), 4 pp.
203. Cline, Charley.
1963. Wood Tick Trail. Pulpwood Prod. and Saw Mill Logging 11(7): 23-26.
204. Corcoran, Thomas J.
1964. Scheduling of pallet trucks in pulpwood operations. Maine Agr. Expt. Sta. Bul. T7, 22 pp.
205. Cowan, F. W.
1963. The pulpwood trucking situation as affected by State regulations in Vermont. Amer. Pulpwood Assoc. Tech. Paper 63-P-77, 4 pp.
206. Cunningham, Chet.
1963. Logging and lumber truck round-up for 1964. South. Lumberman 207 (2585): 172, 174, 176-177.
207. Fair, Ernest W.
1964. Deciding when to buy the new truck. South. Lumberman 208(2589): 36, 38, 40.
208. Fobes, E. W.
1950. Improved alignment of logging roads reduces hauling costs. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-40, 3 pp.
209. _____
1951. Automatic trip stakes. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-45, 2 pp.
210. _____
1958. Transportation and handling of whole trees. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-57, 2 pp.
211. Fursman, H. S.
1962. Belt haulage in the pulpwood industry. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2195(B-8-a), 2 pp.
212. Gignac, T.
1962. Some aspects of forest truck road location and construction. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2124(B-8-b), 8 pp.
213. Hooker, Leland W.
1952. Chain bundling. U.S. Forest Serv. Forest Prod. Lab. Rpt. D1637-49, 2 pp.
214. Hoopes, Samuel.
1963. Choosing a truck for pulpwood hauling in New York. Amer. Pulpwood Assoc. Tech. Paper 63-P-82, 3 pp.
215. Hughes, J. R.
1962. Driving four-foot wood on the Shipshaw River and rafting on Lake St. John. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2192 (B-9-a), 4 pp.
216. Jarck, W.
1963. Contract hauling: A subcommittee report. Amer. Pulpwood Assoc. Tech. Paper 63-15: 22-23.

186. Miller, R. H. P., and Fobes, E. W.
1947. Preloading detachable truck body. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-9, 2 pp.
187. _____ and Fobes, E. W.
1947. Dump trucks for logging. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-15, 2 pp.
188. Pulpwood Production and Saw Mill Logging.
1963. Another pulpwood loader. 11(5): 11.
189. _____
1963. Twelve truckloads daily with Prentice loader. 11(7): 6, 8.
190. _____
1963. Flexibility with a homemade loader. 11(7): 21-22.
191. _____
1964. A mechanical pulpwood loader for everyone. 12(3): 18-19.
192. Rolston, Kenneth S.
1962. "Big Stick" loader with cable rehaul for long wood. Amer. Pulpwood Assoc. Tech. Release 62-R-14, 3 pp.
193. _____
1963. Twyman portable pulpwood conveyor. Amer. Pulpwood Assoc. Tech. Release 63-R-41, 4 pp.
194. Shepard, H. M.
1956. Hiabob pulpwood loader (Progress Report). Amer. Pulpwood Assoc. Release 257, 4 pp.
195. _____
1957. Hiabob C-10 pulpwood loader. Amer. Pulpwood Assoc. Release 324, 3 pp.
196. Swan, D. A.
1963. Simplified rigging for sling handling of wood. Amer. Pulpwood Assoc. Tech. Release 63-R-52, 1 p.

TRANSPORTING

197. American Pulpwood Association.
[n.d.] Pulpwood truck driving. Training Guide No. 7, 28 pp.
198. _____
[n.d.] Truck drivers notebook. 22 pp.
199. Ashton, R. V.
1963. The pulpwood trucking situation as affected by State regulations in New Hampshire. Amer. Pulpwood Assoc. Tech. Paper 63-P-78, 3 pp.
200. Bennett, Arthur L.
1941. Construction of low cost pulpwood roads. Jour. Forestry 39: 903-906.
201. Biggar, J. C.
1962. Rail shipment of pulpwood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2188(B-8-a), 2 pp.

202. Buell, A. F.
1962. General remarks. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2183(H-2), 4 pp.
203. Cline, Charley.
1963. Wood Tick Trail. Pulpwood Prod. and Saw Mill Logging 11(7): 23-26.
204. Corcoran, Thomas J.
1964. Scheduling of pallet trucks in pulpwood operations. Maine Agr. Expt. Sta. Bul. T7, 22 pp.
205. Cowan, F. W.
1963. The pulpwood trucking situation as affected by State regulations in Vermont. Amer. Pulpwood Assoc. Tech. Paper 63-P-77, 4 pp.
206. Cunningham, Chet.
1963. Logging and lumber truck round-up for 1964. South. Lumberman 207 (2585): 172, 174, 176-177.
207. Fair, Ernest W.
1964. Deciding when to buy the new truck. South. Lumberman 208(2589): 36, 38, 40.
208. Fobes, E. W.
1950. Improved alignment of logging roads reduces hauling costs. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-40, 3 pp.
209. 1951. Automatic trip stakes. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-45, 2 pp.
210. 1958. Transportation and handling of whole trees. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-57, 2 pp.
211. Fursman, H. S.
1962. Belt haulage in the pulpwood industry. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2195(B-8-a), 2 pp.
212. Gignac, T.
1962. Some aspects of forest truck road location and construction. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2124(B-8-b), 8 pp.
213. Hooker, Leland W.
1952. Chain bundling. U.S. Forest Serv. Forest Prod. Lab. Rpt. D1637-49, 2 pp.
214. Hoopes, Samuel.
1963. Choosing a truck for pulpwood hauling in New York. Amer. Pulpwood Assoc. Tech. Paper 63-P-82, 3 pp.
215. Hughes, J. R.
1962. Driving four-foot wood on the Shipshaw River and rafting on Lake St. John. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2192 (B-9-a), 4 pp.
216. Jarck, W.
1963. Contract hauling: A subcommittee report. Amer. Pulpwood Assoc. Tech. Paper 63-15: 22-23.

217. Labrecque, G. M.
1962. The use of ships for transporting pulpwood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2191(B-9-i), 6 pp.
218. Lea, Richard V.
1963. The pulpwood trucking situation as affected by State regulations in New York State. Amer. Pulpwood Assoc. Tech. Paper 63-P-76, 3 pp.
219. Lewis, Donald J., and MacBean, D. G.
1952. Log trailer and transfer unit. U.S. Forest Serv. Forest Prod. Lab. Rpt. D1637-52, 3 pp.
220. McFarlane, H. W., Seheult, L. R., and Stevens, A. M.
1962. Comparing different road qualities. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2189(B-8-b), 4 pp.
221. McNally, J. A.
1963. Mechanized logging and road requirements. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2258(B-8-b). Also Pulp and Paper Mag. Canada 64(10): WR377-WR382.
222. McPhillips, Gerald.
1963. The New York Bureau of Motor Vehicles position on current regulations. Amer. Pulpwood Assoc. Tech. Paper 63-P-79, 8 pp.
223. Mitchell, I. W.
1962. Rail transportation of pulpwood. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2187(B-8-a), 4 pp.
224. Pearson, G.
1962. Transportation of pulpwood chips. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2185(E-1), 2 pp.
225. Pertovaara, H.
1963. [The most advantageous circumstances for transporting timber by lorries and for floating it.] Teho 1963(2): 56-58, 81. [In Finnish. English summary.]
226. Pulp & Paper.
1963. Pulpwood world: American Pulpwood Association Release. 37(11): 52. Based on American Pulpwood Assoc. Tech. Release 63-R-24.
227. _____
1963. Pulpwood world: High capacity pulpwood car. 37(17): 75. Based on Amer. Pulpwood Assoc. Tech. Release 63-R-29.
228. _____
1963. Pulpwood world: Balloon logging succeeds in test. 37(24): 57-58.
229. Pulp and Paper Magazine of Canada.
1949. Why a six-wheeler? 50(5): 170, 172.
230. _____
1963. Soil cement road interests forest industries. 64(12): WR450.
231. Pulpwood Production and Saw Mill Logging.
1963. Quick release binder makes unloading logs easier. 11(7): 19-20.

232. Puttock, G. L.
1955. Methods of calculating fair hauling rates for contract truckers. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1511, 5 pp.
233. Reynolds, R. R.
1939. New development in truck-logging practice. U.S. Forest Serv. South. Forest Expt. Sta. Forestry Note 26, 3 pp.
234. _____
1939. Truck logging with detachable trailers. U.S. Forest Serv. South. Forest Expt. Sta. Occas. Paper 85, 6 pp.
235. Rickards, A. E.
1962. Economics and technology in pulpwood transportation. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2184(B-8-a), 3 pp.
236. Rolston, Kenneth S., Jr.
1962. Choosing a pulpwood truck. Amer. Pulpwood Assoc. Tech. Release 62-R-19, 6 pp.
237. _____
1962. Caterpillar 1673 diesel truck engine. Amer. Pulpwood Assoc. Tech. Release 62-R-37, 3 pp.
238. _____
1963. Factory-built false tandem axles. Amer. Pulpwood Assoc. Tech. Release 63-R-24, 4 pp.
239. _____
1963. Box culverts for mountain roads. Amer. Pulpwood Assoc. Tech. Release 63-R-40, 3 pp.
240. _____
1963. Covington false tandem axles. Amer. Pulpwood Assoc. Tech. Release 63-R-42, 3 pp.
241. Seheult, L. R.
1963. The technological structure of the transportation network in regions with mature and overmature forests. Pulp and Paper Mag. Canada 64(12): WR446-WR448.
242. Silversides, C. R.
1962. Long distance hauling on private and public roads. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2190(B-8-e), 7 pp.
243. Smith, J. T.
1959. Pulpwood truck hauling methods and costs. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1846(B-8-e), Ann. Mtg. Release 3, 12 pp.
244. Swan, D. A.
1962. Duplex tires to replace dual tires on trucks. Amer. Pulpwood Assoc. Tech. Release 62-R-18, 2 pp.
245. Thiesmeyer, L. R.
1962. Testing the pipeline concept. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2194(B-9-a), 3 pp.
246. The Timberman.
1954. How a truck cost system helps in advance planning. 55(11): 58, 60, 64, 66.

247. Tufts, Don, and Mety, Bruce.
1951. Truck transportation of logs in southeast Arkansas. Forest Prod. Res. Soc. Proc. 5: 13-16.
248. Walbridge, Thomas A., Jr.
1964. Contract vs. bob-tail hauling. Pulp & Paper Pulpwood Ann. 38(13): 84-86.
249. White, H. C.
1964. Road maintenance: Check your culverts. Forest Indus. 91(3): 78-79.
250. Williams, Ward C., and others.
1958. How to better log truck performance. Timberman 59(6): 80, 82-83, 86-88; (8): 37-38, 40-42, 44.
251. Wood, A. D.
1962. The potential use of helicopters for log transport. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2193(B-8-a), 9 pp.

EQUIPMENT AND/OR TECHNIQUES INVOLVED IN MORE THAN ONE HARVESTING PHASE

252. Altman, James A.
1963. A slasher-loader pulpwood operation. Amer. Pulpwood Assoc. Tech. Release 63-R-37, 4 pp.
253. Carr, George J.
1952. Tree-length logging of pulpwood. Pulp and Paper Mag. Canada 53(12): 136-138, 140, 142, 147, 150.
254. Cline, Charley.
1963. Wood Tick Trail. Pulpwood Prod. and Saw Mill Logging 11(5): 29-32.
255. Delaney, Richard.
1939. Selective logging costs less. Jour. Forestry 37: 522-524.
256. Fobes, E. W.
1947. Mobile pulpwood harvesters. U.S. Forest Serv. Forest Prod. Lab. Rpt. R1637-18, 2 pp.
257. _____
1953. Combination skidder-loader. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-56, 2 pp.
258. Fogh, I. F., Horncastle, D. C., and Rose, L. B.
1963. The development of mechanical logging methods for eastern Canada. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1325(B-1). Also Pulp and Paper Mag. Canada 64(9): WR340-WR342, WR344-WR346.
259. Food and Agriculture Organization.
1960. The Bushmaster. Forestry Equip. Note B.26.60, 2 pp.
260. _____
1961. I. Logging tractor BM Bamse. II. Baby-winch. Forestry Equip. Note C.38.61, 2 pp.
261. Forest Industries.
1963. Company crews, tree-length logging speed southern show. 90(10): 68-69.

262. Forest Industries.
1964. Loggers use surplus tanks. 91(2): 64-66.
263. _____
1964. Tractor show bests terrain. 91(2): 67.
264. _____
1964. Tree length logging system doubles output per man-hour. 91(2): 63.
265. Francis, S. H.
1962. The mechanization of a small woods operation. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2133(B-1), Ann. Mtg. Release 9, 5 pp.
266. Gardner, Rulon B.
1964. Engineered systems approach to harvesting, handling and transporting problems of low-value northern hardwoods. Pulp and Paper Mag. Canada 65(2): WR36-WR39.
267. Godwin, G.
1954. Development of mechanical logging methods between the stump and final landing for eastern Canada: Introductory remarks. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1368(B-1). Also Pulp and Paper Mag. Canada 55(7): 142-144.
268. Goulet, E. R.
1939. Economics of logging various pulpwood lengths. Pulp and Paper Mag. Canada 40(13): 749-751.
269. Grote, Frank R.
1963. Multi-logging for greater efficiency. South. Lumberman 206(2573): 28.
270. Hallin, Otis D.
1963. Portable barker-chipper succeeds. Pulp & Paper Pulpwood Ann. 37(10): 107.
271. Hanson, H. E.
1964. Tree-length mechanization rises. Pulp & Paper Pulpwood Ann. 38(13): 105-106.
272. Hensel, J. S.
1962. Portable barker-chipper and log loading units (Progress Report No. 1). Amer. Pulpwood Assoc. Tech. Release 62-R-39, 4 pp.
273. _____
1964. Beloit Hibob Tree Harvester. Amer. Pulpwood Assoc. Tech. Release 64-R-9, 5 pp.
274. Hines, Charles.
1963. Case histories of integrated logging operations. North. Logger 12(1): 14-15, 46-47.
275. Holekamp, J. A.
1953. The preparation, handling, and transportation of pulpwood east of the Rockies. Tech. Assoc. Pulp and Paper Indus. 36(2): 139A-144A.
276. Holt, L.
1950. Cutting methods in pulpwood operations of eastern Canada. Pulp and Paper Res. Inst. Canada Woodlands Res. Index 84(F-2), 56 pp.

277. Horncastle, D. C.
1962. Current status of multi-processing equipment. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2130(B-1). Also Pulp and Paper Mag. Canada 63(6): WR251, WR254, WR258-WR261. Also Amer. Pulpwood Assoc. Tech. Release 62-R-23, 7 pp.
278. Hough, A. F.
1943. Methods of harvesting sawtimber from forests in the high plateau section of Pennsylvania. Jour. Forestry 41: 898-903.
279. Jasper, Evans.
1963. New harvester ups production for IP. Pulp & Paper Pulpwood Ann. 37(10): 100-101.
280. King, W. W.
1963. Merchantable stem skidding and damage. Jour. Forestry 61: 846-849.
281. LaCasce, J. R.
1963. Mechanization and the small pulpwood operator. North. Logger 12(4): 24-25.
282. McDonald, John K.
1962. A new timber harvester. Forest Prod. Jour. 12(11): 12A-14A.
283. Mair, William.
1963. Spruce harvester gets maximum yield. Pulp & Paper Pulpwood Ann. 37(10): 101-103.
284. Pulp & Paper.
1963. Pulpwood world: Improving equipment design. 37(7): 47-49.
285. _____
1963. Pulpwood world: American Pulpwood Association Release. 37(11): 52. Based on Amer. Pulpwood Assoc. Tech. Release 63-R-26.
286. _____
1963. Pulpwood world: Tree a minute harvester. 37(16): 51-52.
287. Pulpwood Production and Saw Mill Logging.
1963. A report on Westvaco's chipping experiment. 11(7): 16, 18-19.
288. _____
1963. A report on Olin's Company job. 11(8): 4, 6.
289. _____
1963. The unitized Buschcombine. 11(8): 16, 18-19.
290. _____
1963. A report on IP's Buschcombine job at Olla. 11(8): 19-20.
291. _____
1963. Portrait of a timber operator. 11(10): 18, 20-21.
292. _____
1963. St. Croix's mechanized operations. 11(11): 6, 8, 10.
293. _____
1963. Year around operations in Virginia. 11(11): 20.

294. Pulpwood Production and Saw Mill Logging.
1964. Cottonwood on the Atchafalaya. 12(1): 6, 8, 10.
295. 1964. Brown Company's program of diversified marketing. 12(2): 6, 8, 12.
296. 1964. His situation is stable. 12(3): 14.
297. 1964. Scott's Moose River operation. 12(4): 4, 6, 8.
298. 1964. One skidder - 200 cords a week. 12(4): 30, 32-33.
299. Quaille, George E.
1963. Short bolt restrains economies. Pulp & Paper Pulpwood Ann. 37(10): 104-105.
300. Rolston, Kenneth S., Jr.
1962. A one-man pulpwood operation. Amer. Pulpwood Assoc. Tech. Release 62-R-41, 4 pp.
301. 1962. A Tennessee tandem axle truck operation. Amer. Pulpwood Assoc. Tech. Release 62-R-42, 4 pp.
302. 1963. An inexpensive pallet operation. Amer. Pulpwood Assoc. Tech. Release 63-R-1, 3 pp.
303. 1963. Two mechanized Pennsylvania operations. Amer. Pulpwood Assoc. Tech. Release 63-R-5, 4 pp.
304. 1964. Timberjack, Hiab, and Reo equipment on a southeastern Pennsylvania operation. Amer. Pulpwood Assoc. Tech. Release 64-R-7, 4 pp.
305. Scott, Karl.
1963. Brown Company's integrated logging. North. Logger 12(1): 18-19.
306. Simmons, Fred C.
1947. Mechanizing forest operations. Jour. Forestry 45: 345-349.
307. 1948. Choosing methods and equipment for logging. U.S. Forest Serv. Northeast. Forest Expt. Sta. Paper 18, 19 pp.
308. 1954. Logging beech and specifications for beech products. U.S. Forest Serv. Northeast. Forest Expt. Sta. Coop. Beech Util. Ser. 10, 30 pp.
309. 1962. Logging farm wood crops. U.S. Dept. Agr. Farmers' Bul. 2090 (Rev.), 52 pp.
310. Southern Lumberman.
1964. Mechanized logging system. 208(2586): 23, 26.

311. Swan, D. A.
1962. A case for tree length logging in the Northeast. Amer. Pulpwood Assoc. Tech. Release 62-R-47, 6 pp.
312. _____
1962. An efficient tree length palletized trucking operation in the northeast. Amer. Pulpwood Assoc. Tech. Release 62-R-32, 3 pp.
313. Upton, Robert W.
1963. Price Brothers North Woodlands Division. Pulp and Paper Mag. Canada 64(7): WR288-WR289, WR292-WR294.
314. Vit, Rudolph.
1960. Development of a feller-buncher-skidder for full tree logging operations. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1946(B-1). Also Pulp and Paper Mag. Canada Conv. Issue 1960: 270-274.
315. Weitzman, Sidney.
1952. Mountain logging. South. Lumberman 185(2321): 199-202.

PLANNING HARVESTING OPERATIONS

316. Barraclough, Solon L., and Gould, Ernest M., Jr.
1955. Economic analysis of farm forest operating units. Harvard Forest Bul. 26, 145 pp.
317. _____ and Pleasonton, Alfred.
1957. Data for planning woodland opportunities on west Tennessee farms. Tenn. Agr. Expt. Sta. Bul. 276, 63 pp.
318. Bruce, Richard W., and Adams, Thomas C.
1962. Logging cost analysis in management planning. Forest Prod. Jour. 12(11): 519-522.
319. Carpenter, Roswell D.
1947. Organizing for efficient logging. South. Lumberman 175(2194): 48, 50, 52, 54.
320. Chardin, A., Lepitre, CL., and LeRay, L.
1959. Log dimensions and the selection of equipment. U.S. Forest Serv. Forest Prod. Lab. Rpt. 1637-59, 30 pp.
321. Coutu, Arthur J., Baum, E. L., and Ray, R. M.
1960. An analysis of the Parker Branch watershed project. 1953 through 1959: A progress report. N.C. State Col. coop. with TVA, 47 pp.
322. _____ and Ellertsen, Birger W.
1960. Farm forestry planning through linear programming. TVA Forestry Relat. Rpt. 236-60, 31 pp.
323. Ellertsen, Birger W.
1960. Forestry input and output data, Parker Branch watershed (Revised). TVA Forestry Relat. Tech. Note 27, 23 pp.
324. Esgate, E. E.
1948. Engineering pulpwood production. Pulp and Paper Mag. Canada 49(10): 132, 134, 136.

325. Golden, E. A.
1962. Linear programming in harvesting forest products. 11th Annual Forestry Symposium: Producing, harvesting, and marketing high quality southern timber. pp. 53-59. Baton Rouge: La. State Univ. Press. Edited by William C. Hopkins.
326. Lussier, L. J.
1959. A statistical planning system for control of logging operations. Forest Prod. Jour. 9(6): 192-195.
327. _____
1960. Use of operations research in determining optimum logging layouts. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1947(A-2-a). Also Pulp and Paper Mag. Canada Conv. Issue 1960: 280, 282, 284, 286, 288-289.
328. _____
1961. Planning and control of logging operations. Laval Univ. Forest Res. Found. Contrib. (8), Quebec, 135 pp.
329. _____
1963. A gambler's approach to logging problems. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2225(A-2-a). Also Pulp and Paper Mag. Canada 64(9): WR354-WR356, WR358, WR360, WR362-WR364.
330. Matthews, Donald Maxwell.
1939. The use of unit cost data in estimating logging costs and planning logging operations. Jour. Forestry 37: 783-787.
331. Ritzheimer, Earl.
1954. Planning of mechanical supervision for logging operations and equipment. Canada Lumberman 74(6): 30-31, 54; (7): 56-58.
332. Smith, George W., and Harrell, Cleon.
1961. Linear programming in log production. Forest Prod. Jour. 11(1): 8-11.
333. The Timberman.
1954. How a truck cost system helps in advance planning. 55(11): 58, 60, 64, 66.
334. Winer, Herbert I., and Donnelly, R. H.
1963. Linear programming in woodlands decisions. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 2225(A-2-a). Also Pulp and Paper Mag. Canada 64(9): WR350-WR354.

OTHER HARVESTING PUBLICATIONS

335. Ach, Edward K.
1964. Why mills use long wood. Pulp & Paper Pulpwood Ann. 38(13): 86-87.
336. Allis-Chalmers Manufacturing Company.
1963. Fundamentals of logging. Ed. 5, 128 pp. Construct. Mach. Div.
337. Anderson, G.
1963. Harvesting research and the problems in making it pay. Amer. Pulpwood Assoc. Tech. Paper 63-42: 31-32.

367. Noyes, John H.
1963. An objective look at the impact of integration on forest systems. North. Logger 12(4): 19, 32, 43.
368. Pepler, W. A. E.
1950. The economics of applied silviculture. Canad. Pulp and Paper Assoc. Woodlands Sect. Index 1096(F-2). Also Pulp and Paper Mag. Canada 51(11): 127-128.
369. Quaile, G. E.
1963. Plantation logging. Soc. Amer. Foresters Mtg. Proc. 1962: 50-52.
370. Ralston, R. A.
1956. The break-even point for rough 8-foot bolts merchantable as sawlogs or cordwood. U.S. Forest Serv. Lake States Forest Expt. Sta. Tech. Note 469, 2 pp.
371. Reynolds, R. R.
1951. Increase in pulpwood production costs. U.S. Forest Serv. South. Forest Expt. Sta. Forestry Note 74, 3 pp.
372. Schores, D. D.
1963. Forest products integration with long-logging: The economic aspects involved. Soc. Amer. Foresters Mtg. Proc. 1962: 145-147.
373. Simmons, Fred C.
1951. Northeastern loggers' handbook. U.S. Dept. Agr. Handb. 6, 160 pp.
374. Stenzel, George.
1963. Progress in logging, 1962-1963: Mechanization increases production. Forest Prod. Jour. 13(11): 463-474.
375. Swan, D. A.
1961. New approach to collective work evaluation of machinery aggregations. Amer. Pulpwood Assoc. Tech. Release 61-R-15, 2 pp.
376. Wackerman, A. E.
1949. Harvesting timber crops. 437 pp., New York: McGraw-Hill Book Co.
377. _____
1963. Harvesting the timber crop. Forest Farmer Manual 22(7): 13-16.
378. Walbridge, T. A., Jr.
1956. Influence of logging techniques on manpower requirements, 1950-1960: New and promising approaches. Amer. Pulpwood Assoc. Southwest. Tech. Com. Mtg. Minutes: 36-38.
379. Bentley, A. R., and Ohman, C. P.
1961. A time study method for pulpwood producers (Revised). 28 pp., Calhoun, Tenn.: Hiwasee Land Co.
380. Wallace, Oliver.
1963. Cost allocation, accounting practices and integration of products. North. Logger 12(4): 18, 30.
381. Weitzman, Sidney, and Trimble, G. R., Jr.
1955. Integrating timber and watershed management in mountain areas. Jour. Soil and Water Conserv. 10(2): 70-75.

382. Windebank, W. J.
1963. A symposium: Technical change and its consequences on woods operations. Pulp and Paper Mag. Canada 64(4): WR159-WR173, WR201-WR202.
383. Winer, Herbert I.
1961. Methods of paying woods workers. Northeast. Logger 10(3): 8-9, 34-38.
384. _____
1961. Notes on the analysis of pulpwood logging in the Southeast. Prepared for Amer. Pulpwood Assoc. Southeast. Tech. Com., 35 pp.
385. _____
1962. Problems in analyzing southern logging costs. 11th Annual Forestry Symposium: Producing, harvesting, and marketing high quality southern timber. pp. 41-52. Baton Rouge: La. State Univ. Press. Edited by William C. Hopkins.
386. Worrell, Albert C.
1959. Economics of American forestry. pp. 211-228, 275-292, New York: John Wiley & Sons.

The Central States Forest Experiment Station is headquartered at Columbus, Ohio and maintains major field offices at:

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