

# JACK PINE BIBLIOGRAPHY

by

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## INTRODUCTION

This is the fourth in a series of bibliographies to be prepared for the more common tree species in the Manitoba-Saskatchewan Region. The purpose of the bibliographies is to provide ready access to literature relating to the various aspects of forestry including the ecology, silviculture, growth, entomology, pathology, and utilization of the tree species. The bibliographies should prove useful to the practising as well as to the research forester.

The bibliography on jack pine (Pinus banksiana Lamb.) is presented in two sections. The first contains a synopsis of subject matter headings with their numerical assignment based on the Oxford System of Decimal Classification for Forestry followed by the subject listing. The second section contains the complete reference. The bibliography is considered complete up to and including 1968, however, some 1969 publications have been included.

The prime source for literature cited herein has been from Forestry Abstracts (published by the Commonwealth Agricultural Bureaux, Farnham Royal, England). Additional material has been obtained from the Commonwealth Forestry Bureau, Oxford, England. The co-operation of the Bureau is gratefully acknowledged in providing, at nominal cost, references and abstracts from material used in conjunction with the preparation of Forestry Abstracts. Other material has been outlined from publications received by the Canadian Forestry Service, Department of Fisheries and Forestry, library in Winnipeg, Manitoba. The classification of all literature has been reviewed by the authors and, where necessary, reclassified into one or more subject categories.

Revised bibliographies will be prepared frequently to ensure their usefulness. No doubt all past publications on jack pine are not included in this bibliography and the authors would appreciate hearing of any omissions so that they may be included in the first revision.

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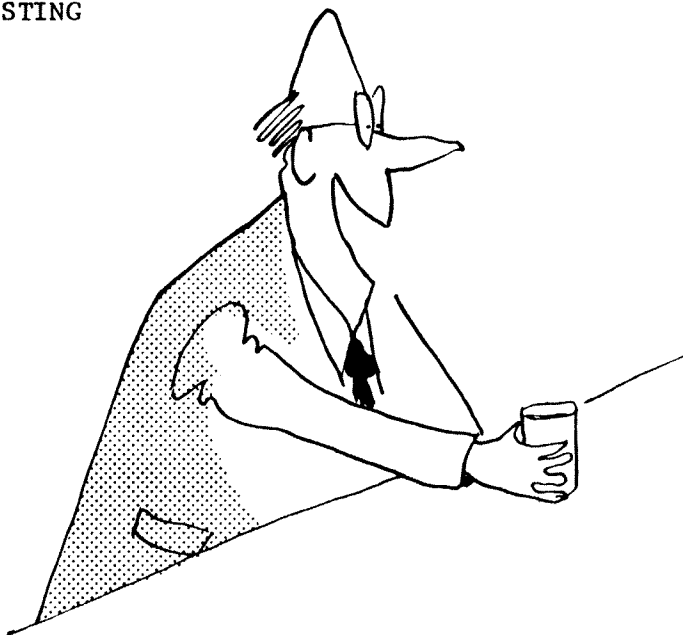
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IDENTIFICATION
- Hudson 1960, Kittredge  
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- 048.1 BIBLIOGRAPHICAL LISTS
- Libby et al 1956, Lynn  
1967, Richens 1945.
- 083.7 STANDARDS. SPECIFICATIONS
- Canadian Engineering  
Standards Association 1940,  
Proceedings American Wood  
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WELL - let's get this bibliography rolling.

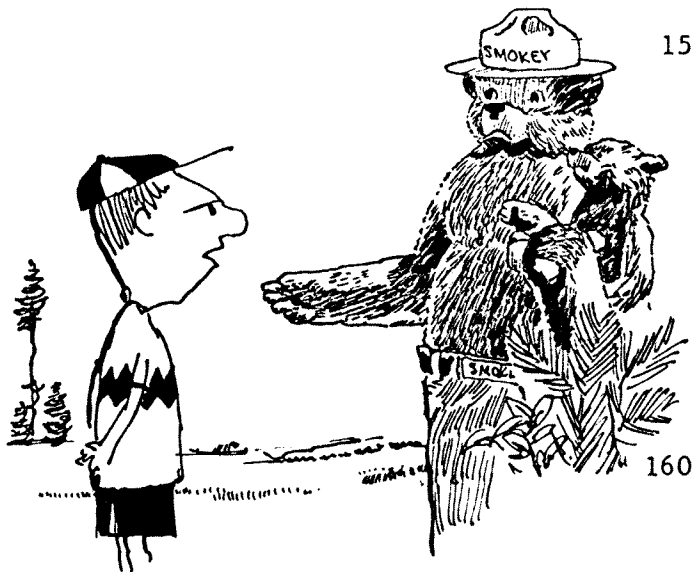
- 111 THE ATMOSPHERE. METEOROLOGY.  
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- Lynn 1967, Mueller-Dombois 1965, Niederhof & Stahelin 1942,  
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- 114 SOIL. SOIL SCIENCE
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- 114.4 SOIL CLASSIFICATION. SOIL TYPES
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You realize, of course, you're just propagating middle class values for the military-industrial complex!

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161 PHYSIOLOGY

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163 EMBRYOLOGY

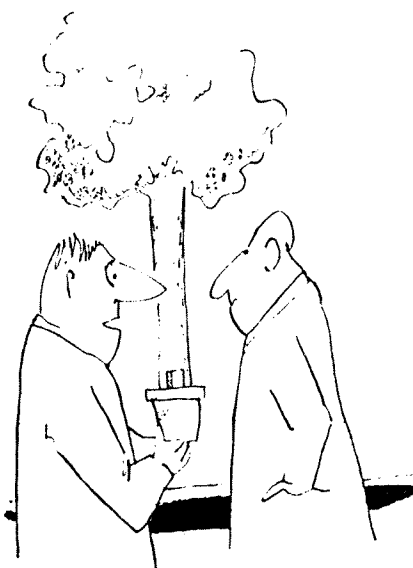
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165 PHYLOGENY, EVOLUTION,  
HEREDITY, GENETICS AND  
BREEDING VARIATION

Australia Timber Bureau 1953, Barber & Stewart 1957, Bingham 1963, Heimburger 1958, Lundgren & King 1966, Mergen & Worrall 1965a, Nordine 1961, Northeastern Forestry Tree Improvement Conference (Fifth) 1958, Razmologov 1964, Richens 1945, Rudolf et al 1956b, Rudolph et al 1957, Rudolph & Nienstaedt 1962, Ryker 1963, Schütt 1958, Teich 1968, Univ. Florida 1961, U.S. Dept. Agriculture 1966, Worsley 1959, Yeatman 1964, 1967b.



We call it our 'Tourist Drive Thru Tree'.



165.4 Basic methods of breeding

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165.5 Natural variation

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165.6 Selection

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165.7 Hybrids

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168 HISTOLOGY

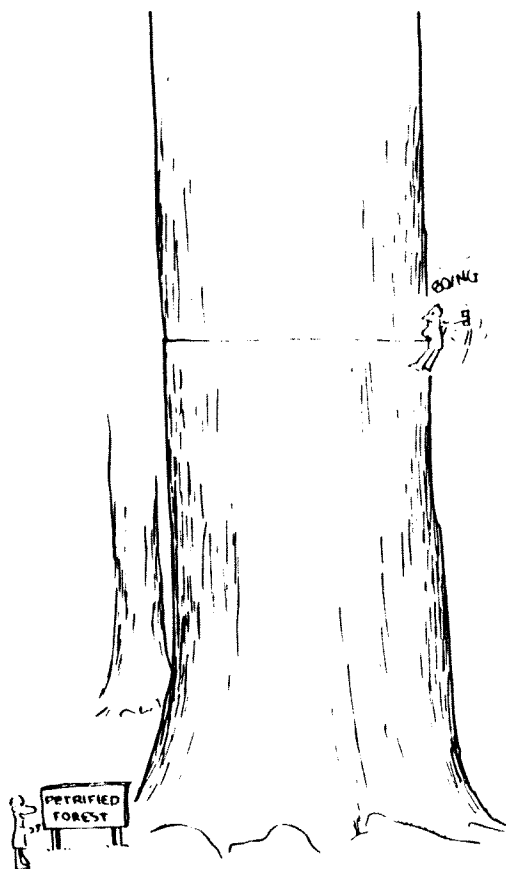
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17 SYSTEMATIC BOTANY

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18 PLANT ECOLOGY

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SHOUP! You nincompoop!

181 SILVICULTURAL CHARACTERS OF TREES

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181.2 ATMOSPHERIC RELATIONS

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181.3 WATER, SOIL AND ROOT RELATIONS

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181.31 Water relations

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181.33 Physical soil relations

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181.34 Soil nutrient and chemical soil relations

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181.35 Special modes of nutrition

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181.36 Root relations and root development, etc.

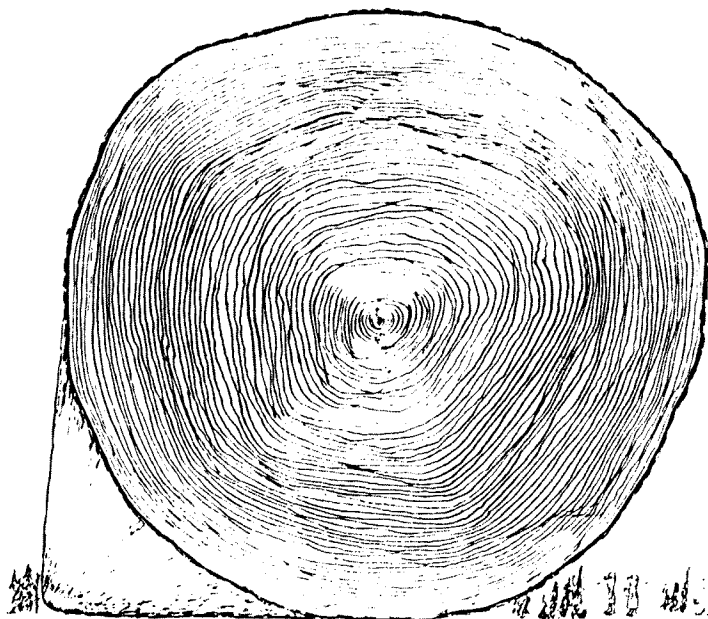
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181.4 REACTION TO BIOTIC INFLUENCES AND FIRE

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181.5 REPRODUCTIVE BEHAVIOUR

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 b, 1940d, e, f, Vabre-  
 Durrieu 1956, Yeatman 1964.



**58,736 ? You'd better re-check that!**

181.6 LIFE FORM, HABIT. POST-SEEDLING DEVELOPMENT AND FORM

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 & Farrar 1961, Heron & Nairn 1965, Holmes & Tackle 1962, Hustich  
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 Rudolf 1956, Rudolph 1962, Schantz-Hansen 1940, Schoenike et al  
 1962, Sokolov & Artjušenko 1957a, Sokolov & Artyushenko 1957b,  
 Stoeckeler 1949, Stoeckeler & Olsen 1957, Thomas 1958, 1960, U.S.  
 Dept. Agriculture 1960, Vaartaja 1957c.

181.7 DURATION, LONGEVITY: STATURE: RECORDS OF EXCEPTIONAL AGE OR SIZE. EFFECTS OF AGE ON BEHAVIOUR

Belyea et al 1951, Britton 1883, LaBonte et al 1968, Meehan 1883,  
 Merriam 1883, Ralston 1952, Rudolf & Ralston 1953,

181.8 PHENOLOGY

Giertych & Farrar 1961, 1962, Kennedy 1969, Lanner 1966, Larson 1961, Rudolph 1962, 1964, Sokolov & Artjušenko 1957a, Sokolov & Artyushenko 1957b, Stoeckeler & Rudolf 1956, Thomas 1958, U.S. Dept. Agriculture 1960.

182.1 PALAEOECOLOGY. HISTORY OF VEGETATION. POLLEN ANALYSIS

Aase 1915, Barber & Stewart 1957, Braun 1950, Buell 1945, 1946, Cain 1944a, b, Cain & Cain 1948, Cushing 1965, Dansereau 1953, Davis 1958, 1965, Flint 1967, Frey 1951, 1953, 1955, Fries 1962, Grayson 1954, Hansen 1949, 1952, Haring 1964, Heinselman 1963, Heinselman & Roe 1963, Hopkins 1950, Jelgersma 1962, Kilburn 1958, Löve 1959, Martin 1958b, McAndrews 1966, Ogden 1965, Potzger 1953, Potzger & Courtemanche 1956, Raup 1933, Ritchie 1964, Ritchie & De Vries 1964, Rosendahl 1948, Rosendahl & Butters 1918, Terasmae 1960, West 1961, Whitehead 1964, 1965, Whitehead & Barghoorn 1962, Wilson 1938, Wright 1964, Yeatman 1967b.

182.2 SUCCESSION, ALTERNATION AND PERIODICITY IN VEGETATION

Ahlgren 1960, Ching 1957, Collins & Davis 1959, Jeffrey 1964, Kilburn 1959, 1960, Lee 1924, Neilson & Moyle 1941, Oslon 1958, Spurr 1953, 1954, U.S. Dept. Agriculture 1942.

182.3 UNITS OF VEGETATION (ASSOCIATIONS, ETC.)

Dansereau 1951, Rowe 1956.

182.4 LAYER COMMUNITIES

Brown 1959, Herenga & Cormack 1963, Rowe 1956.

182.8 ECOLOGY OF ARTIFICIAL (CULTIVATED) PLANT COMMUNITIES, ETC.

Gysel 1966.

187 VEGETATION TYPES

Ahlgren & Ahlgren 1965, Alway & McMillar 1933, Blumer 1913, Braun 1950, Brown 1950, 1959, Buell & Niering 1957, Candy 1942, Connell 1913, Curtis 1959, Cushing 1965, Dowding 1929, Grandtner & Gauthier 1966, Habeck 1959, Halliday 1937, Hansen 1952, Harrison 1934, Heinselman 1963, Hustich 1950, 1951, Jameson 1961, Jeffrey 1964, Journal of Forestry 1932, Kilburn 1958, Knight 1964, Ladouceur 1966, Lindsey 1952, Lintean 1955, Loucks 1962, McIntosh 1951c, Morison 1938, Moss 1953, Mueller-Dombois 1964b, Ritchie 1956, 1961, Rowe 1959, Sharpe & Brodie 1927, Smith & Sparling 1966, Stewart 1925, Zimmerman 1957.

## 2. SILVICULTURE

- 221 HIGH FOREST SYSTEMS  
Eyre & LeBarron 1944, Fraser & Farrar 1955, Howe 1923a, Ralston 1951b, Robertson 1945.
- 222 COPPICE, POLLARDING AND LOPPING SYSTEMS  
Richards 1961.
- 226 CHANGES OF SILVICULTURAL SYSTEM. CONVERSION (BY SYSTEM OR SPECIES)  
Brown & Petersham 1926, Eyre 1933, Robertson 1945, Shirley 1941, U.S. Dept. Agriculture 1932b, 1952.
- 228 CONSTITUTION AND COMPOSITION OF STANDS: FORMS OF STAND  
Kakli 1959, LaMois 1956, Schantz-Hansen 1931a, Skilling 1957.
- 23 REGENERATION AND FORMATION OF STANDS  
Cayford 1966b, Hosie 1953b.
- 231 NATURAL REGENERATION  
Adams 1966, Aldous 1946, Bay et al 1954, Beaufait 1960c, Bramble 1946, Brown 1959, Cayford 1966b, Farrar & Fraser 1953, Fraser & Farrar 1953a, b, Haig 1962, Holt 1948, Jameson 1961, Larsson et al 1949, Larsson & Wilkes 1947, Larsson & Lyon 1948, Leblanc 1959, MacLean 1959, Ontario Dept. Lands & Forests 1946, 1948, Owens 1959, Shirley 1941.
- 231.1 Natural regeneration obtained from advanced growth  
Bonner 1950, Cayford 1963a, 1966a, Lukin 1966.
- 231.3 Preparatory measures for securing natural regeneration  
Beaufait 1960b, Bonner 1950, Chrosciewicz 1960a, Crutchfield & Trew 1961, Farrar et al 1954, Gray 1950, Johnson 1955, Korcleff 1944.
- 231.31 Manipulation of canopy  
Cayford 1958, Fraser 1959, Fraser & Farrar 1955, MacLean 1959, Zehngraff 1943.
- 231.32 Manipulation of undergrowth and ground vegetation  
Ahlgren 1959a, Arend & Roe 1961, Beaufait 1960a, d, 1961b, Bush News 1957, Canada Dept. Forestry 1963, Cayford 1963b, Cayford & Waldron 1963, Chrosciewicz 1959, Cooper 1961, Eyre 1938, Grafstrom & Hansen 1962, Kabzems & Kirby 1956, LeBarron 1944, MacLean 1959, Noakes 1946, Pulp & Paper Magazine of Canada 1957, Roe 1963a, Rudolf 1946, Wagner 1966, Williams 1960.

231.33 Manipulation of soil

Aldous 1946, Arnott 1968,  
Atkins & Farrar 1950, Beaufait  
1960c, 1961a, Bush News 1957,  
Cayford 1958, 1959a,  
Chrosciewicz 1960a, Eyre 1938,  
Farrar et al 1954, Johnson  
1955, LeBarron & Eyre 1938,  
Long 1947, Noakes 1946,  
Ralston 1951b, Rudolf 1946,  
U.S. Dept. Agriculture 1936a,  
1939c, 1940c, f, 1944.

231.4 Natural regeneration from  
coppice

Cayford 1963a.

232 ARTIFICIAL REGENERATION

Adams 1966, Bates 1926,  
Li 1937.

232.1 CHOICE AND TRIAL OF SPECIES, RACES, ETC.

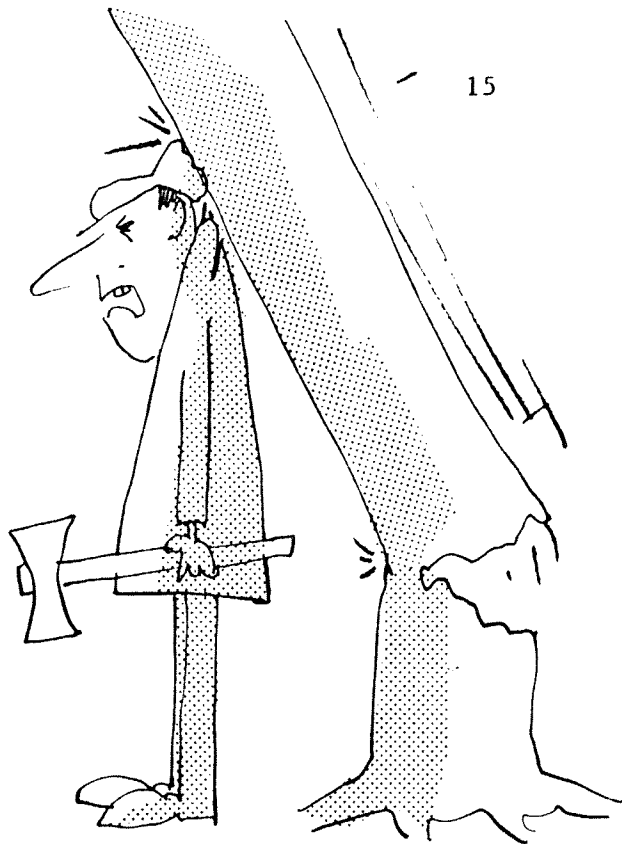
Chittenden 1927, Collins & Hansen 1953, Miller & Heikkenen 1959,  
Ralston 1951a, Rudolf 1959c.

232.11 Species trials

Bella 1967a, Boyce & Neebe 1959, Bramble & Cope 1947, Chisman  
& Bramble 1951, Coaz 1904, Cunningham 1953, Davydenko 1969, Day  
1939, Enescu & Furnică 1955, 1957, Ivanova 1963, Johnsson 1957,  
Journal of Forestry 1925, Kirkwood 1928, Kraus 1963, Lanner 1966,  
Lukin 1966, MacArthur 1959, 1964, Negulescu et al 1962, New  
Zealand 1944, Potter et al 1951, Pourtet & Duchaufour 1946, Perry  
1922, Roe 1948, 1953, Rudolph et al 1956, Sanchez Acosta 1962,  
Sawyer 1946, Schenck 1939, Société Forestière de Franche-comté  
et Belfort 1912, Stiehl 1955, Stoeckeler 1966, Sylvén 1947,  
Traci 1960.

232.12 Races and provenance trials

Alm et al 1966, Alm & Jenson 1969, Arend et al 1961, Batzer 1961,  
1962, Brown & Young 1955b, Holst 1962, Holst & Yeatman 1961,  
Jensen et al 1960, Kennedy 1969, King & Nienstaedt 1965, Lines &  
Aldous 1962, McLeod 1956, Northeastern Forestry Tree Improvement  
Conference (Fifth) 1958, Schantz-Hansen & Jensen 1952, 1954,  
Schoenike et al 1962, Schoenike & Brown 1963, Schütt 1958, Sweet  
& Thulin 1963, Teich 1967, 1968, Williams & Beers 1959.



**Who said they're wind-resistant?**

232.13 Trials of hybrids and other products of tree breeding

Holst 1962, 1964, Liddicoet & Righter 1960, Lotan 1967, Northeastern Forestry Tree Improvement Conference (Fifth) 1958, Timberman 1947, U.S. Dept. Agriculture 1948b.

232.2 PREPARATORY WORK, AUXILIARY MEASURES

Cayford 1961c, Chrosciewicz 1959, Day & Nelson 1948, Fixmer 1950a, Leslie 1953, McNamara & Reigner 1955, Plass 1952, Pruett & Garherum 1961, Rudolf 1950c.

232.3 SEED, NURSERY PRACTICE, DIRECT SOWING

Pettis 1909, Stiell 1959, Tillotson 1925.

232.31 SEED

U.S. Dept. Agriculture 1948a, Weetman 1958.

232.311 Seed production (seed years, seed crops, etc.)

Fowler 1965a, Limstrom 1965, Rudolf 1950a, b, 1952a, 1953, 1959a, b, 1960, 1961, 1962, Rudolf & Ralston 1953, U.S. Dept. Agriculture 1934e, 1938a, Weetman 1958.

232.312 Seed collection, extraction and grading

Brown 1967b, Carman 1953, Carmichael 1958, LeBarron & Roe 1945, Leslie 1951, Limstrom 1965, Neumann et al 1964, Rietz 1937, 1941, Rudolf 1940, Rudolf & Ralston 1953, Schantz-Hansen & Jensen 1952, U.S. Dept. Agriculture 1940h.

232.314 Seed purchase, trade and transport

Barner 1963, Limstrom 1965, Weetman 1958.

232.315 Seed storage and treatment

Ackerman & Farrar 1965, Carman 1953, Cayford & Waldron 1966, 1967, Holmes & Buszewicz 1958, Johnson 1946, Jones 1962, Leibundgut & Dafis 1964, Rudolf 1950b, 1952b, Spencer & Kverno 1953, Timonin 1966, U.S. Dept. Agriculture 1928a, Vaartaja 1955b, Weetman 1958.

232.318 Seed testing. Germination tests. Seed quality

Beaufait 1960a, Brown 1967b, Clifford 1952, Dunlop & McDonnell 1939, Farrar & Fraser 1952, Fisher 1941, Heit & Eliason 1940, Leibundgut & Dafis 1964, Proceedings International Seed Testing Association 1957, Ralston 1951a, 1952, Rathbun-Gravatt 1931, Schantz-Hansen 1941, Timonin 1964, U.S. Dept. Agriculture 1928a, 1930a, 1956a, Vabre-Durrieu 1956, Yim 1963.



232.32 PLANT REARING. NURSERY PRACTICE

Bell 1958, Brown 1966b, Kittredge 1929.

232.321 NURSERY SITES, INCLUDING FACTORS AFFECTING SELECTION OF SITES FOR NURSERIES

Brown 1966b.

232.322 PREPARATION AND TREATMENT OF SOIL, INCLUDING MAINTENANCE OF FERTILITY

Armson & Carman 1961, Benseid 1943, Cheney 1906, McComb 1943, Moore 1922, Stoeckeler 1949, U.S. Dept. Agriculture 1940g, Vaartaja 1958b, Voigt et al 1958, Voigt & Wilde 1963, White 1965, White & Potter 1963, Wilde 1938, 1946, Wilde et al 1940, Wilde & Patzer 1940, Wilde & Rosendahl 1945, Williams 1960.

232.323 SOWING AND COVERING

Benzie 1965, Chrosciewicz 1960b, Clifford 1955, Higgins 1928, Iowa State College of Agriculture & Mechanic Arts 1939a, Lafond 1958, Univ. Toronto 1961.

232.324 TRANSPLANTING AND LINING OUT

Armson & Smith 1966, Schmid & Nutman 1940.

232.325 TENDING (IN BOTH SEEDBEDS AND TRANSPLANT BEDS)

Clifford 1955, Engstrom 1955, Kozlowski & Kuntz 1963, Kuntz & Kozlowski 1963, Larson et al 1952, Li 1940, Mahlstedt 1957, Pruett & Garherum 1961, Stoeckeler 1951.

232.327 PROTECTION MEASURES IN NURSERIES

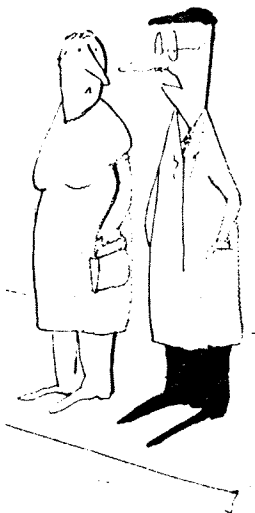
Benjamin et al 1960, Flink & Brigham 1959a, Fraser 1959, Mikola 1952, Rathbun-Gravatt 1931, Stoeckeler 1949, Vaartaja 1955a, Vaartaja & Cram 1956, Wiant 1929.

232.328 VEGETATIVE PROPAGATION

Doesenburg 1960, Holst et al 1956, Holst & Santon 1958, Nikitin 1963, Rudolph & Nienstaedt 1964.

232.329 MISCELLANEOUS (TUBLINGS)

Chittenden 1927, Kokocinski 1968, Univ. Toronto 1959, 1967.



**The Doc says you may have to bottle feed it.**

232.33 FORMATION OF STANDS BY DIRECT SOWING

Bayly 1928, 1933, Cayford 1959b, 1961a, 1966a, b, Cayford & Dobbs 1967, Day 1964, Haig 1959, Holt 1955, Horton & McCormack 1961, Horton & Flowers 1965, Jarvis 1966, Kokocinski 1965, LeBarron 1945, Leslie 1953, Logan 1951, Roe 1949, 1951, 1963b, Rudolf 1951a, Schramm 1966, Scott 1966, Shirley 1937, Smithers 1964, Stoeckeler & Sump 1940, Strothmann & Conover 1960, U.S. Dept. Agriculture 1933f, Weetman 1958.

232.4 FORMATION OF STANDS BY PLANTING

Bonner & Sexsmith 1960, Cayford 1966b, Cayford & Bickerstaff 1968, Cook & Schierbaum 1948, Cook & Smith 1964, Daujotas 1960, Godwin 1960, Hansen 1927, Howe 1923a, Kittredge 1929, Lehotsky 1941, Limstrom 1960, McLeod 1956, Ontario Dept. Lands & Forests 1955, Pettis 1909, Roe 1953, Rudolf 1937, 1950c, Stiell 1959, Stone & Chase 1962, U.S. Dept. Agriculture 1961, Wilde et al 1965.

232.41 PLANTING STOCK

232.411 Kind of stock

Benjamin et al 1960, Food & Agriculture Organization of the United Nations 1958, Horton & McCormack 1961, Krefting & Stoeckeler 1953, Limstrom 1963, Pomeroy et al 1949, Schantz-Hansen 1932, U.S. Dept. Agriculture 1912, 1940a.

232.412 Handling and treatment of stock

Flink & Brigham 1959a, b, Janouch 1927, Jorgensen & Stanek 1962, Limstrom 1963, Sims 1967, Stoeckeler 1950a, U.S. Dept. Agriculture 1935c, 1937b, Weetman 1958.

232.42 METHODS OF PLANTING. FERTILIZERS, ETC.

Baldwin 1938, Cayford & Bickerstaff 1968, Kroodsma 1939, Limstrom 1963, Lowry 1960, MacArthur 1964, Maissurow 1939, McDermott & Burns 1951, Ontario Dept. Lands & Forests 1955, Pawluk & Arneman 1957, Ross 1910, Rudolf 1950c, Schantz-Hansen 1945, Swan 1960d, 1961, 1962a, b, Weetman 1958, Wilde & Albert 1942.

232.43 SPACING AND ARRANGEMENT IN PLANTATIONS

Adams 1928, Adams & Chapman 1942b, Allison 1923, 1931, Collins & Hansen 1953, Cunningham 1953, Giordano & Wilde 1966, Guilkey & Westing 1956, Hansen & McComb 1955, 1958, Hicock 1942, Janouch 1927, Maeglin 1967, Ontario Dept. Lands & Forests 1955, Pettis 1909, Ralston 1953, Rudolf 1951a, Stiell 1955, 1958, Stone & Chase 1962, U.S. Dept. Agriculture 1938b, 1940a, g.

232.44 SEASON AND TIME IN PLANTING

Bunting & Mullin 1967.

232.49 MISCELLANEOUS (FORMING PLANTATIONS)

Bonner 1950, Cheyney 1946, Chicanot 1924, Eyre & LeBarron 1944, Food & Agriculture Organization of the United Nations 1958, Hansen 1927, Hosie 1953a, Leblanc 1959, Rudolf 1939, Shirley 1941, Trenk & Brener 1954.

233 AFFORESTATION (OF PARTICULAR TYPES OF LAND)

Barclay 1922, Bramble & Cope 1947, Canadian Forestry Journal 1920, Czapowski & McQuilkin 1966, Davis & Melton 1963, Denuyl 1947, Finn 1958, Geyer & Gilmore 1962, Hansen & McComb 1955, Hart & Byrnes 1959, 1960, Hetzel 1941, Howard 1964, Jameson 1956, Jonckheere 1960, Lehotsky 1941, Limstrom 1960, Lorio 1963, Lorio & Gatherum 1965, Lowry 1958, 1960, Mamyuk 1946, Ontario Dept. Lands & Forests 1955, Papadopol et al 1964, Pejta 1947, Potter et al 1951, Ross 1910, Rudolf 1950c, Sawyer 1946, U.S. Dept. Agriculture 1912, 1928b, 1958.

235 UNDERPLANTING, ADVANCE PLANTING, ETC. NURSES AND FORMATION OF MIXTURES

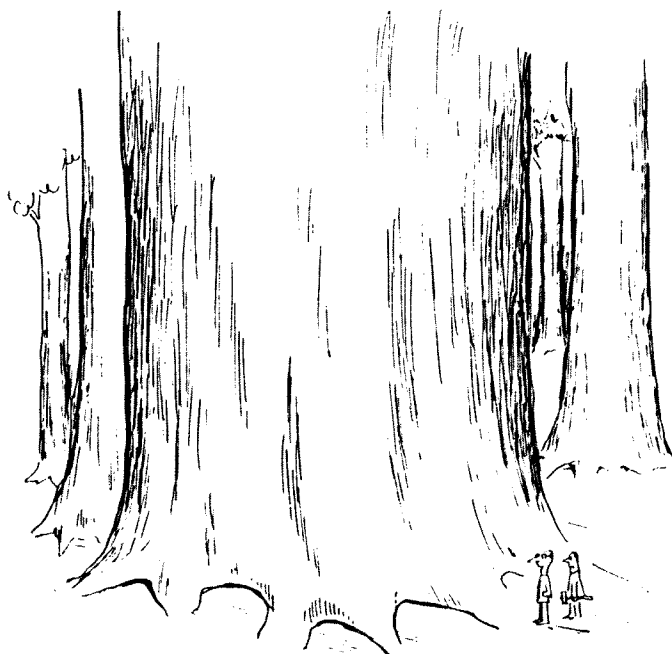
Ayres 1889, Hansen 1927, Maissurow 1939, McNamara & Reigner 1955.

236 CARE OF REGENERATION OR PLANTATIONS IN THE INITIAL STAGES OF ESTABLISHMENT

Allison 1943, Bonner & Sexsmith 1960, Candy 1938, 1951, Deitschman & Pruett 1960, Hosie 1953b, Kuntz & Riker 1952, Larsson & Wilkes 1947, Larsson & Lyon 1948, Larsson et al 1949, Limstrom 1963, Littlefield 1939a, b, Long 1947, Lorio 1963, Lorio & Gatherum 1965, Lowry 1958, 1960, Mahlstede 1957, Morris 1942, Ontario Dept. Lands & Forests 1946, 1948, 1955, Pfankuch & Duncan 1956, Rudolf 1950c, Schantz-Hansen 1937a, Scholten 1963a, b, Tieman et al 1966, U.S. Dept. Agriculture 1939a, Voigt & Wilde 1963, Walker 1967, Weetman 1958.

237 AMELIORATION OF FOREST SITES

Dale et al 1955, Gagnon 1967, Iowa State College of Agriculture & Mechanic Arts 1940, Pawluk & Arneman 1957, Stone 1953, Swan 1962b, 1966b, Trenk 1948, U.S. Dept. Agriculture 1928b, 1954.



I think we're a little late for transplanting.

239 MISCELLANEOUS (FORMATION OF STANDS)

Ross 1928, Sexsmith 1955.

242 THINNINGS

Adams 1928, Adams & Chapman 1942a, Allison 1952, Blair & Ralston 1953, Boldt 1969, Buckman 1964, Cayford 1961b, 1964, Cowan 1950, Cox 1938, Day 1958, 1961, 1967, Dosen et al 1957, Eyre & Zehngraff 1945a, b, Fernow 1916, Fixmer 1950b, Godman & Olmstead 1962, Hansen 1937, Hansen & Brown 1929, Kabzems & Kirby 1956, Kastrukoff 1950, Lewis 1963, Ontario, Dept. Lands & Forests 1955, Robertson 1949, Roe & Stoeckeler 1950, Roeser 1932, Schantz-Hansen 1931b, Schenk et al 1957a, b, Skilling 1957, Sthenk et al 1957, Stott 1949, U.S. Dept. Agriculture 1929b, 1932a, 1940b, 1956b, Wilson 1946, 1951a, b, 1952.

243 OPENING OF THE CANOPY (INCREMENT FELLINGS, OVERHEAD RELEASE AND IMPROVEMENT FELLINGS)

Arend 1955, Arend & Roe 1961, Day 1965, 1967, Myles & Jarvis 1957, Robertson 1945, Smith 1966, Stoeckeler 1950b.

245 TENDING OF TREES

Ralston & Lemien 1956.

264 FARM FORESTS

Barclay 1922, Canadian Forestry Journal 1920, Morton 1920, Tillotson 1925.

266 SHELTERBELTS, WINDBREAKS

Barclay 1922, Canadian Forestry Journal 1920, Chronicle of Botany 1943, Collins & Hansen 1953, Collins et al 1954, George 1953, Gorshenin 1940, Howard 1964, Mahlstedt 1957, Mamyuk 1946, Munns & Stoeckeler 1946, Read 1964, Scholten 1963a, b, Trenk 1948, Trenk & Albert 1955.

27 ARBORATA, ARBORICULTURE FOR ORNAMENTAL PURPOSES. HEDGES AND HEDGE PLANTS

Rai & Hamner 1955, Silen & Woike 1959, Wyman 1961.

281 CHRISTMAS TREES

Fox 1955, Rennels 1959, Sowder 1961, 1963, Tillotson 1925.

29 MISCELLANEOUS (ON SILVICULTURE)

Bedard 1930, Cheyney 1942, Cameron 1926, Cayford et al 1967, Eyre & LeBarron 1944, Forestry Chronicle 1962, Graves 1908, Haig 1962, Hodson & Zehngraff 1946, Howe 1923b, Matte et al 1964, Sterrett 1920, Switzer 1959, Wickenden 1921, Wilde et al 1949.

3. WORK SCIENCE (WORK STUDIES). HARVESTING OF WOOD: LOGGING AND TRANSPORT. FOREST ENGINEERING

30 WORK SCIENCE (WORK STUDIES): GENERAL

Delahey 1935, Owens 1959, Sterrett 1920.

31 LOGGING AND TRANSPORT: GENERAL

James 1953.

32 FELLING AND RELATED OPERATIONS

Anderson & French 1964b, Hale 1944, Hale & McIntosh 1949, Johnston 1968, McIntosh 1948, 1949, 1951b, 1953, Meek et al 1954, Myles & Jarvis 1957, Peterson et al 1958.

33. DEGREE OF UTILIZATION AND WASTE. CLEARING THE FELLING SITE

Eyre & Zehngraff 1945b, Graham 1922, Johnson 1955, Morofsky 1954, Mulloy 1944, Nelson & Irving 1966, Running 1940, 1941, U.S. Dept. Agriculture 1933e, Williams 1955.

34 STORAGE OF WOOD IN THE FOREST AND AT LOG DUMPS ("LANDINGS")

Univ. Wisconsin 1958.

36 TOOLS, MACHINES AND EQUIPMENT FOR FELLING AND RELATED OPERATIONS

Dosen et al 1957, Johnston 1967, 1968.

37 TRANSPORT

Arnott 1968, Gray 1956, Keen 1963, Lounder 1961, McIntosh 1951a, Shreeve & Biggar 1960, Virsunen 1955, Wilson 1960.

4. FOREST INJURIES AND PROTECTION

411 NATURAL AND BIOLOGICAL CONTROL

Becker & Benjamin 1964a,  
Bourchier 1955, Dixon &  
Benjamin 1963, Dowding 1931,  
Drooz & Benjamin 1956, Ewan  
1961, Gulij 1963, Kuijt 1955,  
Kulman & Hodson 1961a, Mattson  
et al 1968, McLeod 1964, 1966a,  
Miller et al 1961, Rennels &  
De Barr 1965a, Secrest 1944,  
Smirnoff 1964, Smirnoff et al  
1962, Thomas 1952, Thomson  
1959, Walgenbach & Benjamin  
1963.



I think we have a pollution problem.

412 SILVICULTURAL CONTROL

Kuijt 1955, Millers 1967, Secest 1944.

413 PHYSICAL AND MECHANICAL CONTROL

McNeel & Kennedy 1959.

414 CHEMICAL CONTROL

Benjamin et al 1961b, Ewan 1961, Jones & Shenefelt 1956, Phytopathology 1956.

414.1 Protective preparations classified by their mode of action

Anderson 1963b, Arend & Roe 1961, Benjamin et al 1960, Butcher & Carlson 1962, Cayford & Waldron 1967, Day 1967, Finnegan & Stewart 1962, Kuntz & Dosen 1961, Kuntz & Kozlowski 1963, Littlefield et al 1946, Meek et al 1954, Millers 1967, Peterson et al 1958, Tieman et al 1966, Vaartaja 1956, 1959a, Walgenbach et al 1964, Walker 1967, Yasinski 1957.

414.2 Application: methods and equipment

Anderson 1945, 1947, Banash et al 1963, Benjamin et al 1963, DeBoo & Hildahl 1967, Flink & Brigham 1959a, b, Fox 1955, Gates 1930, Hamilton 1943, Hansen 1953, Jones & Shenefelt 1957, Kalandra & Kolubajiv 1954, Krefting et al 1960, Kuntz & Riker 1952, Leinfelder & Hansen 1954, McDaniel 1941, McLeod 1966b, Miller et al 1961, Palfrey & Roland 1951, Rennels & De Barr 1965a, b, Roy 1966, Rudnev & Kononova 1964, Saplala 1967, Smirnoff et al 1962, Vaartaja 1957a, Walgenbach et al 1965a, b.

414.4 Side effects of chemical treatments

Cayford & Waldron 1967, Kuntz & Dosen 1961, Larson et al 1952, Voigt 1953, 1955, Walker 1967.

416 TYPES OF INJURY

Cayford & Haig 1961b,

416.1 To buds, leaves and shoots

Anderson 1947, Brown & Young 1955a, Bugbee 1961, Butcher & Hodson 1949, Cayford et al 1959, Corson & Cheyney 1928, Graham & Baumhofer 1930, Herdy & Thomas 1961, Jaynes & MacAloney 1958, Jones & Shenefelt 1956, Krefting 1953a, Krefting & Stoeckeler 1953, Kulman 1967, Lindquist 1961, Lindquist & Harnden 1957, Martin 1958a, Molnar & Sivak 1964, New Zealand Forest Service 1964/65, Plank & Gerhold 1965, Reid et al 1963, Rose 1965, Sippell 1956, Stiell & Farrar 1953, Stoeckeler & Krefting 1954, Tarasenko 1965, Thomas & Lindquist 1956, Thomas & Herdy 1961a, Turnock 1953, Walgenbach & Benjamin 1966, Wong & Lawrence 1963, Wong et al 1966.

416.11 Defoliation

Becker & Benjamin 1967, Benjamin 1952, 1953, 1954, 1965, Benjamin & Underwood 1953, Benjamin et al 1955, Benjamin et al 1961a, Brandt & McDowall 1968, Craighead 1940, Dixon 1961, Dixon et al 1956, 1957, Dixon & Benjamin 1962, Haynes 1961, Heron 1956, Jaquith et al 1958, Kapler 1959, Kapler & Benjamin 1960, Kulman 1961, Kulman et al 1957, 1963, Kulman & Hodson 1961c, 1962, Martineau 1958, 1959, Mielke 1956, O'Neil 1958, 1962, 1963, 1967, Parker & Collis 1966, Peterson 1967, Reeks 1958a, Rennels & De Barr 1965a, Schaffner 1939, Simeone & Engeiken 1959, Smirnoff 1964, Tripp 1965, Univ. Wisconsin 1959a, Wallace & Sippell 1958, Wallesz & Benjamin 1960, Wilkinson et al 1966, Wilson 1966.

416.12 Mining

Bennett 1954, Brown 1962a, Drooz 1960, Elliott & Drouin 1961, Elliott & McDowall 1963, Finnegan 1961, 1965, Freeman 1960, Lindquist & Harnden 1963, Martin 1959, McLeod 1961, Reeks 1956, Thomas & Herdy 1961b.

416.13 Galls

Anderson 1963c, Drouin & Wong 1962, Eaton & Yuill 1960, Pomerleau 1942.

416.14 Curls, distortions

Stone 1952.

416.15 Spots, discolorations

Laut et al 1966, Ouellette 1962, 1966a, b, Univ. Wisconsin 1959b.

416.16 Wilts, die-back

Ohman 1966, Teich 1967.

416.17 Witches' brooms

Johnson et al 1965a, b, Kuijt 1955, Laut 1967, Lightle 1954.

416.12 To flowers, cones, fruits and seed

Abrahamson & Kraft 1965, Ahlgren 1966, Canada Dept. Northern Affairs & National Resources 1957, Clark et al 1967, Gilbert et al 1967, Heron 1956, Rathbun-Gravatt 1931.



If I see another tourist I'LL ...

416.3 To roots and butt

Barker & Griffin 1965, Basham 1958, Basham & Vasiloff 1960, Bega 1962, Bradley & Wighton 1959, Brown & Young 1955a, b, Christensen 1940, Davidson & Patton 1961, Finnegan 1956, 1962, Finnegan & Stewart 1962, Kearby 1966, Kearby & Benjamin 1963, Krebill & Patton 1962, Miller 1960, Millers et al 1963, Ouellette & Bard 1961, Prentice 1955, Schaffner & McIntyre 1944, Sutherland 1967a, Univ. Wisconsin 1959b, Warren 1956a, b, Wilson & Schmiede 1965.

416.4 To bark and cambium

Anderson 1948, 1960a, b, 1963a, b, 1965, Anderson & French 1962, Anderson & French 1965, Anderson et al 1967, Boyce 1957, Cayford & Haig 1961a, Gruenhagen et al 1947, Guilkey et al 1958, Kujt 1955, Krefting et al 1962, Littlefield et al 1946, MacDonald 1952, Mielke et al 1961, Morofsky 1954, Nighswander & Patton 1965, Ouellette 1965, Ouellette & Bard 1966, Peterson 1959, Rennels & De Barr 1965b, Rudolf 1949a, b, Schenk 1961, Schenk et al 1957a, b, Smith 1961, Speers 1967, Yasinski 1957, Zalasky & Riley 1963.

416.5 To wood

Anderson & French 1964a, Basham 1958, 1966a, b, 1967, Basham & Vasiloff 1960, Christensen 1940, Clark 1953, 1957, Fritz & Rochester 1933, Glerum & Farrar 1966, Gruenhagen et al 1947, Martineau 1946, Morofsky 1954, Nobles 1956, Parmelee 1941, Wilson 1962.

42 INJURIES FROM INORGANIC AGENCIES (EXCLUDING FIRE)

Clark et al 1967, LaCroix 1964, Rudolph 1967.

421 AIR CURRENTS

Schantz-Hansen 1937b, Stoeckeler & Arbogast 1955, U.S. Dept. Agriculture 1933g, Weetman 1957.

422 TEMPERATURE INFLUENCES. INSOLATION

Cayford et al 1959, Dowding 1931, Fraser 1953, Gagnon 1967, Glerum & Farrar 1966, Haig & Cayford 1960, Pomerleau & Ray 1955, Reeks 1958b, Rudolph & Nienstaedt 1962, Schantz-Hansen & Joranson 1939, Shirley 1934, 1936, Shirley & Meuli 1939, Stoeckeler 1951, 1965, Stoeckeler & Rudolf 1949, Stone 1952, U.S. Dept. Agriculture 1935e, d, 1937a, Vaartaja 1958a, Voigt 1951.

423 PRECIPITATIONS

Basham 1953, Cayford & Haig 1961b, Crutis 1936, Godman & Olmstead 1962, Kienholz 1941, Laut & Elliott 1966, Riley 1953, Schantz-Hansen 1937b, Thomas 1956, Tripp et al 1962, U.S. Dept. Agriculture 1939e.



424 SOIL CONDITIONS: EROSION EFFECTS

Dale et al 1955, Fox 1955, Nighswander 1962, Stone 1953, Voigt et al 1958.

425 CHEMICAL INFLUENCES (ATMOSPHERIC)

Dässler et al 1968, Linzon 1961.

43 FOREST FIRES

Davis 1959.

431 PREDISPOSING FACTORS AND CAUSES. FIRE DANGER. FIRE BEHAVIOUR

Beaufait 1961a, Brown 1966a, Johnson 1966, LaMois 1956, Smith & Sparling 1966, U.S. Dept. Agriculture 1931c, 1933d, Wagner 1965, 1967, Williams 1955.

432 PREVENTION AND CONTROL

Canadian Pulp & Paper Association 1949, Davis 1959, Hesterberg 1959, Kuntz & Dosen 1961, LaMois 1956, U.S. Dept. Agriculture 1933e, 1944, Williams 1958.

433 SALVAGE AND DISPOSAL OF FIRE-DAMAGED TIMBER

Basham 1956, 1957, Prebble & Fytche 1950.

434 REVEGETATION, ETC. OF BURNT AREAS

Ahlgren 1959b, Cayford 1963b, Grafstrom & Hansen 1962, Roe 1951.

435 BENEFITS OF FIRE CONTROL. INJURIOUS EFFECTS OF FIRE

Basham 1957, 1958, Cooper 1961, Gardiner 1957, Mitchell 1954, Parmelee 1941, Skolko 1947, U.S. Dept. Agriculture 1933d, 1934b.

436 BENEFICIAL EFFECTS OF FIRE. USES OF FIRE IN SILVICULTURE AND OTHER FORMS OF HUSBANDRY

Adams 1966, Ahlgren 1963, Beaufait 1960a, c, d, 1961a, b, Cayford 1966a, Chapman 1952, Chrosciewicz 1959, 1967, Cooper 1961, Martin & Davis 1961, Nelson & Irving 1966, Pulp & Paper Magazine of Canada 1957, Scotter 1963, Spurr 1953, 1954, U.S. Dept. Agriculture 1933e, Wagner 1966, Williams 1958, 1960.

441 FOREST WEEDS

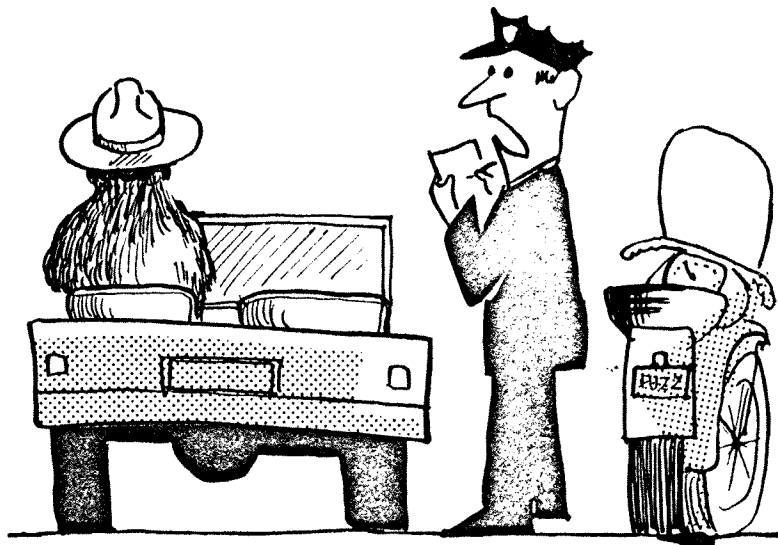
Arend & Roe 1961, Brown & Hansen 1955, Day 1967, Deitschman & Pruett 1960, Hansen 1953, Kuntz & Riker 1952, Kuntz & Dosen 1961, Kuntz & Kozlowski 1963, Larson et al 1952, Leinfelder & Hansen 1954, Meek et al 1954, Palfrey & Roland 1951, Peterson et al 1958, Tieman et al 1966, Walker 1967.

442 PARASITIC (HIGHER) PLANTS.  
CLIMBERS AND EPIPHYTES

Bourchier 1955, Canada  
Dept. Agriculture 1953,  
1954, 1955, 1957, Graham  
1959, Kabzems & Kirby  
1956, Kuijt 1955, 1963,  
Laut 1967, Monk & Waters  
1959, North American  
Forestry Commission 1963,  
Riley 1948, Spaulding 1956,  
Thomas 1952.

443 FUNGI AND BACTERIA

Anderson & Schmiede 1959,  
Canada Dept. Agriculture  
1954, 1955, 1957, Cayford  
& Waldron 1967, Forestry  
Abstracts 1964, Hodson &  
Christensen 1942, Monk &  
Waters 1959, Schmiede &  
Anderson 1958, 1960, Weir  
1915.



You still need a license to drive in this park.

443.2 Diseases of seed and  
seedlings; damping off, etc.

Anderson 1963b, c,  
Beckwith & Anderson 1956, Beckwith & Ewan 1956, Davis 1942, Fisher  
1941, Laut et al 1966, Mikola 1952, Molnar & Sivak 1964, North  
American Forestry Commission 1963, Phytopathology 1956, Rathbun-  
Gravatt 1931, Spaulding 1961, Timonin 1964, Trošćanin 1950, U.S.  
Dept. Agriculture 1957a, Vaartaja 1954, 1955a, b, 1956, 1957a,  
b, 1958a, 1959a, Vaartaja & Gram 1956, Vaartaja et al 1961,  
Vaartaja et al 1961, Vaartaja & Salisbury 1961, Waters & Mook  
1958, Wiant 1929.

443.3 Diseases of older stages

Anderson 1960a, b, 1963a, c, 1965, Anderson & Schmiede 1961,  
Anderson & French 1962, Anderson & French 1964a, b, Anderson  
& Anderson 1965, Anderson et al 1967, Basham 1956, 1958, 1966a, b,  
1967, Beckwith & Anderson 1956, Beckwith & Ewan 1956, Basham &  
Vasiloff 1960, Basham & Morawski 1964, Bega 1962, Bingham 1963,  
Boyce 1957, Campbell 1960, Christensen 1940, Christensen & Hodson  
1954, Clark 1957, Davidson & Patton 1961, Fritz & Rochester 1933,  
Gruenhagen et al 1947, Guilkey et al 1958, Hiratsuka & Gautreau  
1966, Jorgensen 1956, 1961, King & Nienstaedt 1965, Krebill &  
Patton 1962, Lampky & Peterson 1963, Lightle 1954, McGrath 1968,  
McKenzie 1942, Mielke 1956, Mileke et al 1961, Miller 1960, Molnar  
& Sivak 1964, Morawski et al 1958, Mounce 1929, Nighswander &  
Patton 1965, Nobles 1956, North American Forestry Commission 1963,  
Ohman 1966, Ouellette 1962, 1965, 1966a, b, Ouellette & Bard 1961,

Ouellette & Bard 1966, Parker & Collis 1966, Patton & Riker 1959, Peterson 1959, 1967, Pomerleau 1942, Reid et al 1963, Rice 1945, Skilling & Cordell 1966, Spaulding 1956, 1961, Spaulding & Hansbraugh 1932, Teich 1967, Univ. Wisconsin 1959b, Waters & Mook 1958, Weir 1915, York 1941, Zalasky & Riley 1963.

444 VIRUS DISEASES

North American Forestry Commission 1963, Spaulding 1956, 1961.

451 MAMMALS (wild)

Ahlgren 1966, Aldous 1936, 1939, 1947, Aldous & Aldous 1944, Cayford & Haig 1961a, Cheyney 1929a, Corson & Cheyney 1928, Cox 1938, Day 1942, Horton 1964, Journal of Forestry 1931, Krefting 1953a, b, Krefting & Stoeckeler 1953, Krefting & Arend 1960, Krefting et al 1962, Littlefield et al 1946, MacDonald 1952, McNeel & Kennedy 1959, Recknagel 1943, Rudolf 1949a, b, Spencer & Kverno 1953, Stiell & Farrar 1953, Stoeckeler & Krefting 1954, U.S. Dept. Agriculture 1936c, d, 1941, 1947.

452 BIRDS

U.S. Dept. Agriculture 1941.

453 INSECTS

Abrahamson & Kraft 1965, Allison & Orr 1929, Anderson 1945, 1947, 1948, Anderson & Schmiede 1959, Anderson & Schmiede 1961, Atwood & Peck 1943, Baldwin 1953, Banash et al 1963, Barker 1948, Barker et al 1949, Batzer 1961, 1962, Becker & Benjamin 1964a, b, 1967, Beckwith & Ewan 1956, Benjamin 1952, 1953, 1954, 1955, 1965, Benjamin & Underwood 1953, Benjamin & Drooz 1954, Benjamin et al 1955, Benjamin et al 1960, Benjamin et al 1961a, b, Bennett 1954, Bradley 1957, 1959, 1962, Bradley & Wighton 1959, Brandt & McDowall 1968, Brown 1962a, Brown & MacKay 1943, Brown & Young 1955a, b, Bugbee 1961, Butcher & Hodson 1949, Butcher & Carlson 1962, Canada Dept. Agriculture 1942, 1943, 1954, 1955, 1957, Canada Dept. Northern Affairs & National Resources 1957, Clark 1953, Craighead 1950, Daviault 1949, DeBoo & Hildahl 1968, Dixon 1961, Dixon et al 1956, 1957, Dixon & Benjamin 1962, 1963, Drooz 1960, Drooz & Benjamin 1956, Drouin & Wong 1962, Drouin et al 1963, Dunn 1931, Eaton 1955, Eaton & Yuill 1960, Elliott & McDowall 1963, Elliott & Drouin 1961, Ewan 1957, 1961, Finnegan 1956, 1961, 1962, 1963, 1965, Finnegan & Stewart 1962, Flink & Brigham 1959a, Forestry Abstracts 1964, Freeman 1953, 1960, Fyfe & Lejeune 1946, Gardiner 1957, 1962, Gates 1930, Ghent 1960, Ghent & Wallace 1958, Gilbert et al 1967, Gobeil 1943, Graham 1922, 1925, 1958, Graham & Baumhofer 1930, Gruenhagen et al 1947, Gulij 1963, Hamilton 1943, Haynes 1961, Haynes & Butcher 1962, Herdy & Thomas 1961, Heron 1956, Heron & Prentice 1957, Heron & Nairn 1965, Hildahl 1949, Hodson & Christensen 1942, Hodson & Zehngraft 1946, Holst 1963, Hopping 1952, Ilnitzky & McLeod 1965, Imperial Agricultural Bureau 1943, Jaquith et al 1958, Jaynes & MacAloney 1958, Jones & Shenefelt 1956, 1957, Kalandra & Kolubajiv 1954, Kapler 1959, Kapler & Benjamin 1960,

Kearby 1966, Kearby & Benjamin 1963, Kennedy 1957, King & Benjamin 1965, Kulman 1961, 1967, Kulman et al 1957, Kulman & Hodson 1961a, b, c, Kulman & Hodson 1962, Kulman et al 1963, Lejeune 1949, 1950, Lejeune & Black 1947, Lejeune & Black 1950, Lindquist 1961, Lindquist & Harnden 1957, Lindquist & Harnden 1963, Lyons 1961, 1962, MacAloney 1961, MacAloney & Secrest 1944, MacAloney & Drooz 1956, MacAloney & Schmiede 1962, MacAloney & Wilson 1964, MacKay 1943, Martin 1958a, 1959, Martineau 1946, 1958, 1959, McDowall & Wong 1962, McGuffin 1943a, b, McGuffin 1943a, b, McLeod 1961, 1964, 1966a, b, McLeod & Desalliers 1966, Miller & Heikkinen 1959, Miller et al 1961, Millers 1967, Millers et al 1963, Monk & Waters 1959, Monteith 1958, Morofsky 1954, New Zealand Forest Service 1964/65, O'Neil 1958, 1963, 1967, Ozols 1960, Parmelee 1941, Peterson 1949, Pilon 1966, Pilon et al 1964, Plank & Gerhold 1965, Prentice 1955, Prentice & Nairn 1958, Prentice & Campbell 1959, Rabkin & Lejeune 1954, Reeks 1956, 1958a, 1960, 1962, Rennels 1951, 1959, 1961, 1962, Rennels & Harper 1964, Rennels & De Barr 1965a, b, Ross 1955, Roy 1966, Rudnev & Kononova 1964, Saplala 1967, Schaefer 1964, Schaffner 1939, 1943, Schaffner & McIntyre 1944, Schenk 1961, Schenk et al 1957a, b, Schenk & Benjamin 1964, Schmiede & Anderson 1958, Schmiede & Anderson 1960, Secrest 1944, Sharma et al 1967, Simeone & Engeiken 1959, Sippell 1956, Sippell & Lindquist 1961, Smirnoff 1964, 1967, Smirnoff et al 1962, Smith 1945, 1947, 1960, 1961, Speers 1967, Stairs 1960, Stark 1957, Stevens 1959, 1961, Sthenk et al 1957, Tarasenko 1965, Thomas & Lindquist 1956, Thomas & Herdy 1961a, b, Thomson 1959, Timberman 1947, Tripp 1960, 1965, Turnock 1953, Turnock & Prentice 1950, Univ. Wisconsin 1959a, U.S. Dept. Agriculture 1945, 1959, Vockeroth 1960, Walgenbach & Benjamin 1963, Walgenbach et al 1964, 1965a, b, Walgenbach & Benjamin 1966, Wallace 1961, Wallace & Sippell 1958, Wallesz & Benjamin 1960, Warren 1956a, b, Waters & Mook 1958, Wilkinson et al 1966, Wilson 1962, 1966, Wilson & Schmiede 1965, Wong & Lawrence 1963, Wong et al 1966, Yasinski 1957.

459

OTHER ANIMALS

Barker & Griffin 1965, Griffin 1963, Jokela & Lorenz 1959, Krebill et al 1967, Rose 1965, Sutherland 1967a, b.

46 DAMAGE TO TREE GROWTH BY MAN

Christensen & Hodson 1954,  
Jankowski 1935, U.S. Dept.  
Agriculture 1934d.

461 Logging damage

Kilburn 1959, 1960, U.S. Dept.  
Agriculture 1934c.

If I catch you smoking in my forest  
again, you won't have to worry -  
about cancer killing you.

48 INJURIES DUE TO UNKNOWN OR COMPLEX CAUSES

Krebill 1962, Krebill & Patton 1960, Krebill et al 1967, Patton & Krebill 1960.

5. FOREST MENSURATION INCREMENT: DEVELOPMENT AND STRUCTURE OF STANDS. SURVEYING AND MAPPING521 DIAMETER (GIRTH) AND SECTIONAL AREA

Valiquette 1964.

523 BARK (INCLUDING BARK INCREMENT)

Gevorkiantz & Olsen 1951, Schoenike & Brown 1963.

524 DETERMINATION OF THE VOLUME OF TREES AND STANDS

Bedell 1948, Boldt 1969, Buchman 1961, Canada Dept. Interior 1930, Canada Dept. Mines & Resources 1944, 1948, Gevorkiantz 1938, 1944, Golding 1963, Golding & Hall 1961, Kirby 1955, Larsson & Wilkes 1947, Larsson & Lyon 1948, Larsson et al 1949, Morawski et al 1958, Schantz-Hansen 1922, U.S. Dept. Agriculture 1931b, 1939f.

525 VOLUME BY ASSORTMENTS. MERCHANTABLE VOLUME

U.S. Dept. Agriculture 1935b, 1939d.

526 LOG MEASUREMENT "SCALING"

Flann 1962, Hall & Rudolph 1957, Lease & Benzie 1964, Ontario, Dept. Lands & Forests 1965.

53 SPECIAL MEASUREMENTS OF TREES AND STANDS. (CROWN DIMENSIONS, STAND DENSITY, ETC.)

Bella 1967b, Brown 1965, Godman & Olmstead 1962, Rudolf 1951a, Stoeckeler & Olsen 1957, Vézina 1963, 1964, Wilde et al 1964, Wilson 1946, 1951a.

54 ASSESSMENT OF SITE QUALITY

Bedell & MacLean 1952, Brown & Hansen 1955, Chrosciewicz 1963, Coile 1952, Frissell & Hansen 1963, Gevorkiantz 1947, 1956, Gevorkiantz & Duerr 1938, Hansen & McComb 1958, Hellum & Zahner 1966, Hodgkins 1960, Jameson 1965, Kabzems & Kirby 1956, Linteau 1955, Losee 1954, Mogren 1954, Pawluk 1958, Pawluk & Arneman 1961, Pluth 1966, Ritchie 1961, U.S. Dept. Agriculture 1928b, c, 1930b, Wilde & Zicker 1948, Wilde et al 1951.

48 INJURIES DUE TO UNKNOWN OR COMPLEX CAUSES

Krebill 1962, Krebill & Patton 1960, Krebill et al 1967, Patton & Krebill 1960.

5. FOREST MENSURATION INCREMENT: DEVELOPMENT AND STRUCTURE OF STANDS. SURVEYING AND MAPPING521 DIAMETER (GIRTH) AND SECTIONAL AREA

Valiquette 1964.

523 BARK (INCLUDING BARK INCREMENT)

Gevorkiantz & Olsen 1951, Schoenike & Brown 1963.

524 DETERMINATION OF THE VOLUME OF TREES AND STANDS

Bedell 1948, Boldt 1969, Buchman 1961, Canada Dept. Interior 1930, Canada Dept. Mines & Resources 1944, 1948, Gevorkiantz 1938, 1944, Golding 1963, Golding & Hall 1961, Kirby 1955, Larsson & Wilkes 1947, Larsson & Lyon 1948, Larsson et al 1949, Morawski et al 1958, Schantz-Hansen 1922, U.S. Dept. Agriculture 1931b, 1939f.

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56 INCREMENT: DEVELOPMENT AND STRUCTURE OF STANDS

Bella 1967a, Bunuševac & Antić 1951, Canada Dept. Interior 1936a, b, c, d, e, Cayford 1961b, Chrosciewicz 1963, Enescu & Furnică 1955, Erteld 1953, Guilkey 1953, Guilkey & Westing 1956, Kulman 1961, Kulman et al 1963, Maeglin 1967, McCormack 1953, Morris 1942, O'Neil 1958, 1962, Papadopol et al 1964, Rudolf et al 1956a, Stone & Chase 1962, Vézina 1965, Wilson 1952.

561 INCREMENT IN HEIGHT, DIAMETER, BASAL AREA, FORM AND QUALITY

Canada Dept. Interior 1926, Guilkey et al 1958, Holmes & Tackle 1962, Linzon 1961, MacArthur 1959, O'Neil 1963, Pawluk & Arneman 1957, Robertson 1945, Schantz-Hansen 1937a, Stiell 1958, Stoeckeler & Olsen 1957.

562 VOLUME INCREMENT

Adams & Chapman 1942a, Allison 1952, 1958, Bedell & MacLean 1952, Canada Dept. Interior 1926, 1927, Duerr 1938, Hansen & Brown 1929, Hetzel 1941, Jarvis 1960, Jaquith et al 1958, Rudolf 1951a, Schantz-Hansen 1923, 1931b, Wilde et al 1951, Zehngraff 1949, Zehngraff & Gevorkiantz 1948.

566 YIELD TABLES AND THEIR CONSTRUCTION

Bedell & Maclean 1952, Bella 1968, Canada Dept. Interior 1936a, b, c, d, e, Gevorkiantz 1947, Gevorkiantz & Duerr 1938, Kabzems & Kirby 1956, Ontario, Dept. Lands & Forests 1956, Plonski 1956, 1960, U.S. Dept. Agriculture 1934a.

567 STAND TABLES

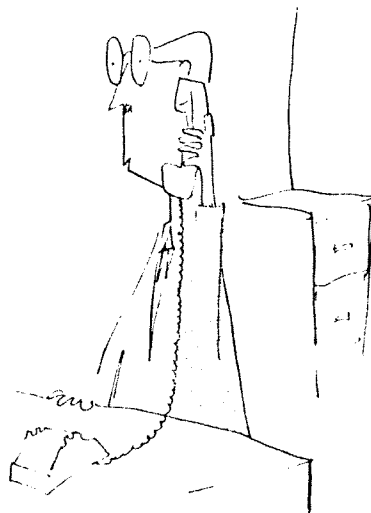
Kabzems & Kirby 1956, Robertson 1945, Rudolf et al 1956a, Sharpe & Brodie 1927, U.S. Dept. Agriculture 1933h, 1934a.

568 OTHER MENSURATIONAL STUDIES OF STAND CONSTITUTION AND CHANGES THEREIN. DISTRIBUTION OF GROWTH BY TREE CLASSES, ETC.

Canada Dept. Interior 1930, Schantz-Hansen 1931a, Sharpe & Brodie 1927.

58 SURVEYING AND MAPPING. AERIAL SURVEY

Heller et al 1964, Laut & Elliott 1966, Losee 1951, Sayn-Wittgenstein 1960, 1961, Zsilinsky 1963.



**Grimsby, we've discovered that while charging \$4.50 per meal you've been eating peanut butter sandwiches.**

6. FOREST MANAGEMENT. BUSINESS ECONOMICS OF FORESTRY. ADMINISTRATION AND ORGANIZATION OF FOREST ENTERPRISES.
- 61 FOREST MANAGEMENT: GENERAL, THEORY AND PRINCIPLES  
Amidon 1953, Behre 1945, Chapman 1951, McCarthy 1921, Sonley 1959, U.S. Dept. Agriculture 1938c.
- 62 METHODS OF MANGEMENT. WORKING PLANS. ANNUAL OR PERIODIC YIELD. YIELD REGULATION  
Amidon 1953, Dickson 1909, Gorshenin 1940, Switzer 1958.
- 64 FORESTRY AS A BUSINESS: GENERAL  
Pulp & Paper Magazine of Canada 1960.
- 65 SPECIAL BUSINESS PROBLEMS OF TIMBER GROWING  
Bush News 1959, Gevorkiantz et al 1948, Haig 1932, Lundgren & King 1966, Trenk 1955a, U.S. Dept. Agriculture 1929b.
- 66 COSTING OF LOGGING OPERATIONS  
Doyle 1960, Doyle & Calvert 1961, Mulloy 1944, Stott 1942, Zasada & Zehngraff 1949a, b.
- 68 ADMINISTRATION AND ORGANIZATION OF FOREST ENTERPRISES  
Kokocinski 1965, Scott 1966.
7. MARKETING OF FOREST PRODUCTS. ECONOMICS OF FOREST TRANSPORT AND THE WOOD INDUSTRIES
- 71 MARKETING OF FOREST PRODUCTS: GENERAL  
Armson & Carman 1961.
- 72 THE QUANTITATIVE ASPECTS OF MARKETING: DEMANDS AND SUPPLY  
Ontario, Dept. Lands & Forests 1945, U.S. Dept. Agriculture 1946.
- 79 ECONOMICS OF THE FOREST PRODUCTS INDUSTRIES  
Godwin 1960.
8. FOREST PRODUCTS AND THEIR UTILIZATION
- 811 STRUCTURE. IDENTIFICATION  
Black 1963, Greguss & Varga 1950, Hale 1933, Hale & Prince 1933, Hausbrandt 1953, Hudson 1960.



811.1 ANATOMICAL ELEMENTS AND TISSUES

Balatinecz & Farrar 1966, Balatinecz & Kennedy 1967, Bannan 1965, Côté 1965, Farrar 1964, Kennedy 1969, Lindstedt 1951, Lindstedt & Misiorny 1951, Univ. Toronto 1965b.

811.4 GROWTH RINGS

Thomas 1958, Zahner & Oliver 1962.

811.7 PHLOEM; BARK

Chang 1954, Hale 1955.

812 PHYSICAL AND MECHANICAL PROPERTIES

Miyajima 1958, Morris 1943, Wilde et al 1951.

812.15 Electrical properties

Peterson 1960.

812.2 BEHAVIOUR WITH LIQUIDS AND GASES

James 1961, Panek 1957b

812.3 DENSITY. SPECIFIC GRAVITY. BUOYANCY

Grigal & Sucoff 1966, McIntosh 1951a, Spurr & Hsiung 1954, Wilde & Voigt 1948.

812.7 STRENGTH PROPERTIES: GENERAL

Atwell 1948, Fritz 1952, Fritz & Rochester 1933, Kennedy 1946, Kennedy & Wakefield 1948, McElhanney 1932, Miller 1968, Olson et al 1947, Rochester 1931, 1932.

812.8 WORKABILITY. WORKING PROPERTIES

Cantin 1965.

813 WOOD CHEMISTRY

Clermont & Schwartz 1951, Erdtman 1943a, b, 1944, Kawase et al 1959, Wilde et al 1951.

813.1 Chief organic constituents. Constituents of the cell wall.

Bailey 1948, Balatinecz & Kennedy 1967, Bishop 1957, Bishop & Cooper 1960, Haas & Kremers 1964a, Perila & Bishop 1961, Thompson et al 1968a, b, Timell 1957, 1959, Wang et al 1967.

813.2 Minor organic constituents. Extractives

Erdtman 1949, Haagen-Smit et al 1950, Lindstedt 1951, Lindstedt & Misiorny 1951, Rudloff & Sato 1963, Smith 1967, Swan 1966a.

813.6 Effect of chemicals on wood. Resistance to chemical attack

Kleinert & McKinney 1962.

814 NATURAL DURABILITY. OLD WOOD. FOSSILIZED WOOD

Colleary 1946, Heinselman & Roe 1963.

815 EFFECT OF GROWTH FACTORS ON STRUCTURE AND PROPERTIES

Besley 1960, Chidester et al 1939a, 1959, Fayle 1968, Grigal & Sucoff 1966, Miyajima 1958, Wilde et al 1951.

821 BARKING

Haas & Kremers 1964b.

831 FUELWOOD AND VARIOUS TYPES OF ROUGH TIMBER

Canadian Engineering Standards Association 1940, Fritz 1952, Fritz & Atwell 1941, Holmes 1957, Kennedy & Wakefield 1948, Krzyzewski 1952, Panek 1957a, Rochester 1931, 1932, Trenk 1955b.

832 MILLS, THEIR FUNCTIONS AND PRODUCTS

Doyle & Calvert 1961, Flann & Petro 1964, Holmes 1957.

833.4 Timber: Special uses in agricultural structures

Bell & Jefferson 1944.

839.8 INDUSTRIAL WASTE WOOD, ITS PROCESSING AND USES

Anderson 1955, Davey 1955, Hale 1955, Milliken 1955, Salzman et al 1958.

841 WOOD PRESERVATION

Behr 1962, 1964, Lockhart 1961, Wayman 1950, 1952.

841.1 Preservatives

Blum 1942, Canada Dept. Forestry 1962, Colley 1943, 1946, Gardiner 1962, Krzyzewski 1952, Kynock & Coderre 1919, Lumsden 1944, Trenk 1955b,

Maybe we could tell the stockholders that we're

using the money to fight pollution

841.2 Processes. Methods of application

Canada Dept. Forestry 1962, Colley 1943, 1946, Krzyzewski 1952, 1964, Kynock & Coderre 1919, Lumsden 1944, Panek 1957a, b, Rowe 1958, Sedziak 1956, Trenk 1955b, Vliet van et al 1962, Walters & Peterson 1961, 1963.

841.3 Preservation of particular categories of timber

Krzyzewski 1952, Panek 1957a, Trenk 1955b.

841.4 Durability of treated timber

Blum 1942, Fritz 1932, Kaufert et al 1955, Walters & Peterson 1961, 1963, Wechel 1939.

844 ATTACK BY PLANT ORGANISMS

Aoshima & Kayashi 1956, Atwell 1948, Basham & Morawski 1964, Campbell 1960, Fritz 1932, 1952, Fritz & Rochester 1933, Fritz & Atwell 1941, Kennedy & Wakefield 1948, McIntosh 1949, Panek 1957b, Pascoe & Scheffer 1950, 1951, Riley 1940, Skolko 1947.

845 ATTACK BY ANIMALS

Blais 1952, 1953, Kennedy 1957, McIntosh 1949, Prentice & Campbell 1959, Shenfelt et al 1958, Skolko 1947, Univ. Wisconsin 1958.

847 DRYING (SEASONING)

Hall & Rudolph 1957, Millett 1961.

848 TIMBERYARD PRACTICE. HANDLING AND STORAGE OF TIMBER

Pascoe & Scheffer 1950, 1951.

85 "GRADING" OF WOOD AND WOOD PRODUCTS

Basham & Morawski 1964, Canada Dept. Forestry 1961a, Kennedy 1946, 1957, Latham 1956, Lumsden 1944, Miller 1965, Northern Hemlock & Hardwood Manufacturers Association 1941, 1947, Northern Pine Manufacturers Association 1949.

861 PULP AND PAPER MANUFACTURE. TEXTILE AND OTHER CELLULOSE DERIVATIVES

Dorland et al 1957, 1962, Evans 1946, Fahey et al 1960, Hyttinen & Schafer 1958, Pascoe & Scheffer 1950, 1951, Perry 1949, Pigman & Czellak 1948, Sanyer et al 1962, Sheridan 1958, Tomlinson et al 1958, Wayman et al 1968, Wegelius 1953, Wilhelmsen 1962.

861.0 RAW MATERIALS, ETC. PULPWOOD AND CHIPS

Besley 1960, Chidester et al 1959, Hall & Rudolph 1957, Heinig & Martin 1949, Kawase et al 1959, Running 1940, 1941, Wilde et al 1951.

- 861.1 PULPING AND PULP  
 Andrews & Des Rosiers 1966, Chidester et al 1939b, Dorland et al 1957, Hurtubise 1954, Legg & Hart 1960, McGovern 1948, Morris 1943, Ross 1953, Running 1941, Sanyer et al 1962, Stevens 1958.
- 862 COMPOSITE MATERIALS MADE WHOLLY OR PARTLY OF WOOD MATTER  
 McGovern et al 1948.
- 892.4 BARK PRODUCTS. TARSTUFFS. CORK  
 Bower & Rowe 1967, Masquelier & Claveau 1966, Rowe 1965, Rowe et al 1969, U.S. Dept. Agriculture 1962.
- 892.6 RESIN AND TURPENTINE. ESSENTIAL OILS. FIXED OILS AND FATS. WAXES. GUMS. LATEX. DYESTUFFS. SAP SUGAR  
 Haagen-Smit et al 1950, Mirov 1956a, 1961, Wilhelmsen 1962.
9. FORESTS AND FORESTRY FROM THE NATIONAL POINT OF VIEW. SOCIAL ECONOMICS OF FORESTRY
- 901 THEORY, METHODS, SYSTEMATICS; PECULIARITIES OF FORESTRY FROM THE POINT OF VIEW OF SOCIAL ECONOMICS  
 Newton-White 1934.
- 902 HISTORY OF FORESTS AND FORESTRY  
 Hicock 1942, Manitoba Dept. Mines & Natural Resources 1956.
- 904 GENERAL REGIONAL ACCOUNTS OF FORESTS AND FORESTRY  
 Cameron 1912, Demmon 1946, Dickson 1909, Halliday 1929, Hastings 1945, Manitoba Dept. Mines & Natural Resources 1956, Matulionis 1957, Roberts 1923, 1941a, b, Tilt 1914, Zasada et al 1954.
- 905 FOREST STATISTICS AND RESOURCES  
 Manitoba Dept. Mines & Natural Resources 1956, Saskatchewan Dept. Natural Resources 1959.
- 94 OTHER METHODS TO IMPLEMENT FOREST POLICY  
 Losee 1961, Northeastern Forestry Tree Improvement Conference (Fifth) 1958, Switzer 1958.
- 95 FOREST TAXATION  
 Lindmark & Skok 1963.

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