

White Pine Weevil Bibliography

by

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FOREWORD

The white pine weevil, *Pissodes strobi* (Peck) (Coleoptera:Curculionidae), has been one of the most important insect pests of forest plantations in North America. For more than 60 years the weevil has wrought havoc on reforestation programs; in fact, attempts to re-establish the preferred host, eastern white pine (*Pinus strobus* L.), have been abandoned in several regions due primarily to the combined impact of the weevil and white pine blister rust (caused by *Cronartium ribicola* Fischer).

Since the problem was first encountered, considerable effort has been made to determine biological and ecological factors influencing population dynamics of the white pine weevil, and to develop practical methods of control. Research has been sponsored primarily by government agencies - the Forest Service of the Department of Agriculture in the United States and by the Canadian Forestry Service of the Department of the Environment in Canada.

The history of early work on the weevil has been prepared by Mott (1930). His annotated bibliography, spanning the period 1798-1930, includes many interesting techniques of population control devised by growers and by staff at experimental stations. More recently, the work by Sullivan (1953-1967) and Brace (1971) in Ontario and by staff of the U.S. Forest Service in the northeastern states (e.g. Marty 1959, Marty and Mott 1964, Wright and Gabriel 1959) has provided considerable new information on the population dynamics of the weevil, host susceptibility, and impact on host trees.

Chemical sprays are applied as protective treatment to several thousand acres of trees each year in both Canada and the U.S. Aerial applications of either lindane or methoxychlor to susceptible stands during late April and early May constitute the most common large-scale operational treatments. Currently, research in Canada is directed mainly to improve application techniques and to evaluate new chemical spray treatments for control of the white pine weevil and the closely related Sitka spruce weevil, *P. sitchensis* Hopkins. This work is being conducted by staff of the Chemical Control Research Institute and the Great Lakes Forest Research Centre in Ontario (white pine weevil) and by staff of the Pacific Forest Research Centre in British Columbia (Sitka spruce weevil).

The literature compilation in this report was prepared primarily to supplement Mott's (1930) earlier bibliography. It is intended for those persons actively engaged in weevil research and related forest insect studies. No attempt has been made to order the bibliographical entries (except alphabetically) as it is assumed the reader will be familiar with most of the major publications and that disciplines of recent authors are readily identified by titles. Also, as for most literature compilations, the authors of this report realize that important references probably have been unintentionally omitted. Notification of these omissions, as well as information pertaining to any current research on leader weevils, would be appreciated by the undersigned.

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WHITE PINE WEEVIL BIBLIOGRAPHY

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