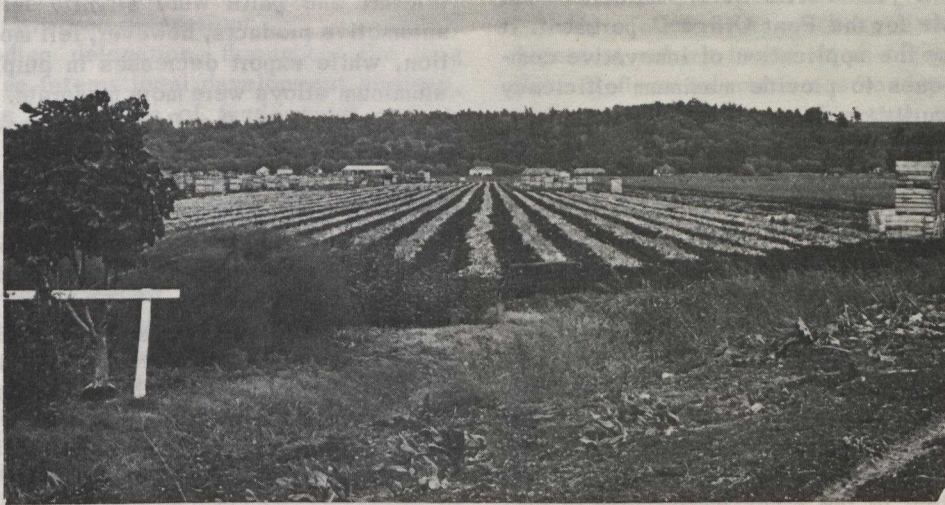


MUSKEG - MARVEL AND MENACE



Farming is one of the occupations for which muskeg presents special problems. This photograph shows a field in a muskeg area where the difficulties have been met and overcome.

Centuries ago the Chippewa Indians called it "maskeg". Today it is known as "muskeg". Whatever you call this sponge-like terrain, there are at least 500,000 square miles of it in Canada - nearly enough to cover France, Norway and Sweden. It exists to some degree in every province, as well as the Northwest Territories.

Despite the formidable problems presented by such terrain, it received relatively little scientific study until recent years. In fact, it was only 25 years ago that Canada's pioneer in the field, Dr. N.W. Radforth, Director of the Muskeg Research Institute of the University of New Brunswick, undertook a survey to obtain a consensus on the accepted meaning of the word muskeg itself.

The term designates organic terrain the physical condition of which is governed by the structure of the peat it contains, and its related mineral sub-layer, considered in relation to topographic features and the surface vegetation with which the peat co-exists.

MUSKEG MAKEUP

On organic terrain the living vegetation cover is composed of mosses and sometimes lichens, sedges or grasses, with or without trees and shrub growth. Undemeath there is a mixture of fragmented organic material derived from past vegetation, now chemically changed and fossilized. This material is commonly known as peat or "muck", and is generally high in water content.

The postwar development of Canada's North made it vitally important to know how to work on and pro-

vide transportation across muskeg. The National Research Council of Canada, through its Associate Committee on Geotechnical Research, first gave serious consideration to the question in 1947. A slow but steady beginning on muskeg studies was made, and, by 1955, a turning-point had been reached with the holding of the first annual Canadian muskeg conference.

MUSKEG MANUAL

The Muskeg Engineering Handbook, the first such reference book ever published, is a compendium of the recommendations and conclusions of the conferences. It presents a review of the state of our knowledge of the possible uses of muskeg, with particular emphasis on Canadian development. It has been written by experts in the various aspects of muskeg research and practice under the guidance of the Muskeg Subcommittee of the Associate Committee on Geotechnical Research.

The Muskeg Subcommittee is one of several groups devoted to the task of analyzing Canada's terrain. It is an interdisciplinary organization composed of engineers and scientists under the chairmanship of Dr. Radforth.

The Handbook will be an important new guide to assist engineers in overcoming problems associated with various types of construction in the undeveloped muskeg areas of Canada, especially in the North. It will play a key role in future construction of railways, highways, airstrips and buildings and other structures on muskeg, and with the movement of "off-road" vehicles in these areas.