

APPLICATION FROM MACDONALD COLLEGE (FACULTY OF AGRICULTURE)
MCGILL UNIVERSITY TO THE EMPIRE MARKETING BOARD AND THE NATIONAL
RESEARCH COUNCIL OF CANADA FOR A GRANT IN AID OF THE ESTABLISHMENT
AT MACDONALD COLLEGE OF A UNIT FOR THE INVESTIGATION OF PARASITIC
DISEASES OF DOMESTIC ANIMALS.

The Problem

There is urgent need for information on the distribution, pathogenicity, and control of entozoa parasites of domestic animals in Canada, especially as regards their bearing on the economic production of sheep, swine, and poultry for market. There has been practically no work done on this subject in Canada. The losses are known to be heavy but hardly any definite information is available. Recognizing the need for knowledge on this subject, Macdonald College in 1927 initiated a survey of conditions in the Province of Quebec. Owing to the lack of funds the survey was necessarily limited, but studies at the Montreal abattoirs, where pigs and sheep were found to be almost invariably infested with verminous parasites, and the repeated statements by breeders that it is extremely difficult for them to feed these animals economically for market, further impressed on us the need for an investigation into the means of ameliorating these conditions. The parasites which seem to call for more immediate attention are nodular worm in sheep, Ascaris in swine, and caeca worms, Ascaridia and Ceccidia in poultry.

Following this survey we carried out a certain amount of preliminary work on caeca (Heterakis) worms and Ascaridia in poultry, paying special attention to methods of breeding and handling pest-free chicks for experimental purposes, but were unable to do any work on the larger animals owing to lack of funds and adequate field equipment.

It may be pointed out that the problems are not merely of local importance since the same or related parasites constitute one of the principal limiting factors wherever the same classes of live stock are produced. The bacon trade is of vital importance to Canada and represents an important feature of our trade relations with the Mother Country. This trade has always had to meet keen competition, largely from foreign countries, and this competition is becoming increasingly severe. Faced with the probability of rising tariffs in the United States, we need more than ever to improve our position in the Empire markets and to bring all the resources of science to bear in removing every handicap to economical production; and one of the most important of these handicaps is the high incidence of parasitic infestation.

While it is true that sheep and poultry products are absorbed largely by the home market, there exists a promising nucleus of trade which it is recognized must be increased due to the force of economic conditions both at home and abroad. The volume of poultry products