approximately one million dollars worth of casings being imported into this country annually. This parasite is also known to actually cause the death of young sheep in many cases.

The mechanism of this nodule formation is not understood and there is a suspicion that some bacterium is concerned with the worm in the production. The special object of this investigation is to determine the relationship, if any, between worm and bacteria and to determine if a bacterial vaccine would be practicable. When the bionomics of this worm have been determined in Canada we can then recommend scientific control measures.

Dr. Swales has, in addition, described a new genus of trematode causing considerable mortality in wild ducks and a new species of nematode from the proventriculus of ducks in Ottawa.

Dr. Parnell is investigating the possibility of using various forms of bedding as a means of controlling the very common strongyle worms of horses and ruminants. His experiments so far have been on the horse parasites, which are extremely common and important in Quebec, and his preliminary work points to the fact that animal urine may be a very useful agent in killing the free-living larvae. His experiments will require considerable extension, however, before any practical recommendations may be made to farmers.

He is also engaged in collating all the available information on the free-living stages of nematodes of stock animals with a view to their application to local problems.

Mr. H.J. Griffiths is engaged on investigations on the bionomics of the common liver fluke of sheep in the Lower St. Lawrence regions, in parts of which it appears to be a very serious parasite.

The greater part of the half year which the Director has spent

-32-