

The cost of maintaining this laboratory is \$5,375 per annum, including the salary of one pathologist.

In the winter the pathologist has to be provided with working space, either at Saskatoon or Winnipeg.

(3) At Winnipeg, Man., the laboratory is situated at the Manitoba Agricultural College, and is in charge of an able young man who received his training under Stakman of Minnesota. He principally carries on studies of stem and crown rusts of oats, but also deals with many other grain troubles, as well as with considerable survey, field, and experimental work.

In passing, it may be said that owing to the severe annual losses from Wheat Rust in the Red River Valley, farmers begin taking more interest in oats, which grow to perfection, but which unfortunately, in some seasons, are subject to severe losses from crown rust—an entirely different rust from stem rust, which has the buckthorn as alternate host. What has been said about the eradication of the barberry, equally applies to the European buckthorn as the carrier of the crown rust of oats.

The facilities at the college are so far by no means exceptionally good, and the work is handicapped to quite an extent; more liberal accommodation is greatly desired and might be provided.

The cost of maintaining this establishment per annum is \$4,900.00.

To summarize, the total cost of maintaining these four laboratories, devoted to all phases of grain disease research throughout the Dominion, but exclusively confined to the West, amounts to the sum of \$25,570.00, including all salaries.

From several years' experience we are in a position to state that the provision made for this very important work in Canada is barely enabling us to perform the minimum of the work necessary. We find ourselves fundamentally handicapped in practically every direction, viz., lack of the essential assistance, lack of suitable accommodation, and unfortunately by a provision of salary ranges insufficiently attractive to men of mature experience, knowledge, and reputation. I wish to emphasize that I think most important of all is the personnel of the laboratories. There has been continual change in the assistants and plant pathologists in Western Canada, a condition more recently rectified. The prospects as regards salary range should be made more attractive to retain the services of men who have shown ability along this line of work, and some means or other should be provided of having appointments made of men of tried experience and judgment, rather than of such having high academic qualifications only. Just in what way positions could be made more attractive is difficult to say, but one way would be to increase at least the maximum of salaries paid at present, as well as to increase the staff by a number of junior members who could be trained.

The Dominion loses easily from \$90,000,000 to \$100,000,000 per annum from grain diseases. Our plain duty is to save the country these enormous sums lost every year, and for the Government to do everything possible within reason to provide a liberal appropriation which will enable us to accomplish the task. To the outsider it may appear as if we had an organization of considerable importance. At any rate it would appear so, were we to enumerate our activities in detail. We have the nucleus of an organization, our men show enthusiasm and knowledge, but we sadly lack encouraging support. Among scientists and others outside the Government service there are a number who are quite capable of correctly estimating the importance of our work, although often without a knowledge of facts, and criticism is frequent enough. Realizing that our service is inadequate, others are engaging independently in such investigations, with the result that work is being carried on in several centres, which may or may not duplicate our own efforts, with accompanying waste of energy.