

EXPERIMENTS IN STEER FEEDING IN MANITOBA.

Interest in beef-raising and all forms of mixed farming in Manitoba is increasing. There is a growing belief that exclusive grain-growing with its attendant evils of soil depletion, increase of weeds and congestion of labour in certain months of the year, must gradually be replaced by a more balanced system of agriculture. This publication is offered to the farmers of Manitoba in order to show that the products of the soil may be marketed profitably in the form of beef, and to throw what light these experiments reveal on the methods likely to give best results. No attempt has been made to write a general treatise on beef raising, but simply to report in concise form the experimental work in steer feeding done on the Experimental Farm at Brandon during the past twenty years.

The writer wishes to give credit to former Superintendents, Mr. S.A. Bedford, Mr. N. Wolverton and Mr. Jas. Murray, for most of the work reported. Experiments up to 1905 were supervised by Mr. Bedford; Mr. Wolverton was in charge in 1906; the work in 1907, 1908, 1909, 1910 and part of 1911 was under the charge of Mr. Murray. The present Superintendent is responsible for the completion of the experiments of 1911 and the work of 1912.

The custom of allowing the value of the manure to balance labour and interest has been followed in these experiments as is commonly the practice in reporting such work. This plan will probably meet with criticism, as not being in accordance with Manitoban ideas on the subject. There are, however, several reasons why these items of cost and returns should be allowed to balance each other in these reports. In the first place, the steers were handled experimentally, often in small groups, and their feed always weighed out to them. Thus the actual cost of the labour spent on them was much greater than it would be under practical farm conditions. The reporting of the actual cost of labour would therefore be misleading and any other estimate would be only a guess. The value placed on the labour spent on feeding cattle will vary greatly under different circumstances. Sometimes a man has a direct choice between work of this kind and comparative idleness; in such a case, the allowance for labour would not need to be so great as where extra help would have to be hired. Then the improvement in the quality of help that can be gained through offering year-round work is a consideration. Further, we believe that those who criticize the balancing of labour against manure, underestimate the value of manure, and that when its effect in keeping up the condition of the soil and increasing crop production is more fully realized, the profits shown will be allowed to pass as real profits. For those who are not prepared to work on this basis, there is the alternative of estimating what the labour will cost under their own circumstances and reducing the returns accordingly.

FROZEN WHEAT VS. BARLEY.

Experiments were tried in 1892 and 1893 to compare frozen wheat with barley as feed for fattening steers. At this time frosts were a great difficulty in growing wheat and frosted wheat sold at about 25 to 30 cents per bushel. The experiments were conducted to determine whether frozen wheat could be marketed more profitably by feeding it, and also compare it with barley as a feed, barley being a crop that could be grown without danger of frost.

The experiment in 1892 does not give a direct comparison between frosted wheat and barley, as the latter was fed in combination with hay as well as