

cattle of real merit. The work with dual - purpose Shorthorn cattle at Brandon Experimental Farm has shown that good milk production can be obtained from these cattle under western conditions. One pure - bred Shorthorn cow at Brandon has given 12,800 pounds of milk in a milking period. Several others have given over 10,000 pounds; the average of the herd in 1916 was over 6,600 pounds. Similar results have been obtained in other herds. The difficulty, however, is that there are not enough pure-bred herds producing herd headers for the general farms. So great is the demand for young bulls at Brandon that a waiting list has been kept for some years, and it is necessary to apply many months ahead in order to obtain a calf. Much injury has been done the dual-purpose strain by the practice of some beef breeders of selling their cull bulls as dairy strain. Sometimes mean, thin ungainly beef stock have been sold as dairy strain, though they had no milk production behind them at all. Buyers of dual-purpose stock should ascertain what the stock they propose to buy can do in actual production before investing. Dual-purpose stock should be of good beef type; bulls and heifers should not be thin but should show good fleshing qualities, though of necessity heavy milking cows lose their flesh to quite a degree. There is room in Western Canada for breeders who will intelligently produce dual-purpose cattle of merit. Such stock will find a ready market on the mixed farms of all the three Prairie Provinces.

What Sort of Shelter Shall I Provide for Stock?

The question of suitable shelters for stock during winter is important from the double standpoint of cash expenditure for such shelter, and the effect of shelter, if any, in securing larger gains on stock for feed consumed.

Where attempts are made in this western country to provide shelter for all classes of stock, the money expended in buildings totals a considerable amount, and is withdrawn from the capital available for turnover in the stock itself. Whether or not stock make increased gains with expensive shelter is a question asked by every beginner, and one which, if possible to answer it in the negative, will make it much easier for many people to begin operations on a considerable scale with live stock.

For several years horses, particularly the idle work horses, have been wintered in the open at

the Lacombe Experimental Station. Certain seasons these horses have had access to straw stacks and the run of pasture which had not been closely eaten the preceding season. In every such instance the horses have done remarkably well, in most cases coming in carrying more weight than when turned out in the fall. In the winter 1911-12 all the horses made gains in weight, some increasing as much as 70 pounds during the coldest winter months. It is necessary to see that water is accessible, and that salt is provided at regular intervals. The usual charge made by those who take horses for wintering in this way is one dollar per head per month, with salt provided by the owner of the horses.

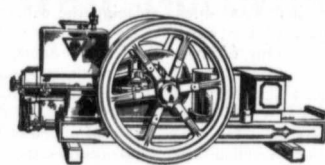
Even where it is not possible to provide for the wintering of horses in this manner, it has been demonstrated that horses will come through in better condition by wintering in the open on the home farm, sheltered by a bluff or corral fence, than if kept in the stable continuously or even during the night time only. With prairie hay valued at \$5.00 per ton and grain at one cent per pound, the cost of wintering during one of the most extreme winters that have been experienced, in the Lacombe district, has been 11.47 cents per day per horse. Every horse included in this test made an increase of weight, and went into spring work with more vigor and life than those few horses which were kept in the stable and worked lightly during the winter.

Experiments have also been conducted at Lacombe to determine the relative economy of gains as between steers fed for beef in the open, sheltered by a corral fence, and in comfortable barns. The average results of these tests for two years indicate a saving in the feed cost of producing beef of \$2.84 per head, in favor of outside feeding. This figure does not take into consideration the extra labor involved in inside feeding nor the interest on the money invested in buildings.

Nature provides beef cattle in this country with a heavy undercoat, and since the climate is not moist, cattle are able to stand the colder temperatures in the open better than the warm, moist air of the barns, no matter how well ventilated. Cattle are itchy and restless for a month to six weeks after first being stabled, whereas in the open they continue to thrive from the beginning.

Feed is economized by the use of feed racks, which hold a load of hay at a time. These feed racks are six feet wide by thirty-two feet long, posts seven feet apart. A two by six-inch stringer on its edge is run along the centre of the rack 22 inches from the ground.

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