Indian Head Experimental Farm and District.

On the great wheat plains of the Indian Head district, the eccentricities of the weather during the past season have, as in other Western farming sections, been seriously felt. For years the big wheat-growers on these fertile lands have been most successful, have met few reverses, and, in consequence, there has been a great tendency toward expansion. Almost every one has been buying more land, and high-priced land at that, without apparently taking into account a possible crop failure, so that this check may prove a "blessing in disguise," warning people that it is possible to load up too heavily with land, no matter how good that land may be. To a visitor there is lack of *home-building* throughout this much-favored section that is disappointing. There are comparatively few stock barns being built, few tree plantations growing up about the farmhouses; in fact, it looks as if every effort was concentrated upon the production of much wheat.

The one thing that has been emphasized more perhaps than any other is that the mechanical condition of the soil must be attended to. There is still ample fertility, but the constant cultivation has worn out the humus or root fiber, and, in consequence, the soil that has received most work in order to have it in fine condition, drifted badly under this season's conditions. This is well illustrated on the Experimental Farm, where the drifting was most disastrous on many of the highly-cultivated plots; in fact, in some cases the fences were buried under soil drift and the crops completely blown out. But the remedy for this is also to be seen on the Experimental Farm, where adjoining the drifted plots were other plots that did not drift a particle. These had been under grass for one or more years, and the grass roots held the soil down and at the same time retained more moisture, and, as Superintendent McKay said, "about the only good crops we have are on these grass plots or where protected from the winds by our shelter belts."

The man who adopts a grass rotation, utilizes the fodder and pasture and straw, by breeding or feeding stock, provides good buildings, fences, etc., will, without a doubt, come out in the long run ahead of the man who spreads himself over many acres and makes wheat his only aim.

Notwithstanding the many drawbacks of weather, there have been some fine crops on summer-fallows, and the condition of the grain is fairly good, plenty of it equal to No. 1 hard, but for an occasional sprouted kernel. The town of Indian Head has made great strides during the past year, many substantial brick buildings having gone up. There are eight standard elevators at this point and also a grist mill.

THE EXPERIMENTAL FARM

has not escaped the effects of drought, wind and rain; but the master hand of the superintendent is to be seen in the excellent condition of every department of work, as far as the skill of man could overtake it. Everything is trim and the work well in hand, roads graded and surface drains cleaned out, and every detail receiving attention. Test plots will not give satisfactory results, so many varied circumstances have intervened to knock calculations to the winds. Some plots on grass lands or protected by shelter belts will give good returns, while others were drifted and scorched beyond recovery. The grasses have not yielded seed, but have thickened into excellent pasture, while late-sown Brome seed has given a fine catch. Mr. McKay finds no difficulty in completely disposing of Brome sod by breaking shallow in June in dry weather and backsetting when rotted. He has also found that when wanted for pasture or when it becomes root-matted that by plowing rather deeply in wet weather it comes through again and is greatly invigorated. The corn crop was one of the best ever raised, and 100 tons of ensilage, part of which is green-cut oats, has been put up. Roots have been a fair crop generally, while the potato crop, with over 80 varieties, is one of the best ever raised on the farm, some of the varieties showing a yield of about 800 bushels per acre. It has been a trying season on trees, and they have made little growth. Many of the small-fruit bushes made new wood later in the season after the rain set in, which may seriously affect their fruit-bearing next year. For the first time in the history of the farm, an excellent crop of plums and crab apples was secured, the Atkin plum having given a particularly good account of itself.

A fairly good bunch of cattle, principally Shorthorns, are kept. All are in fine condition. At the head of the Shorthorn herd is a two-year-old roan son of Judge, out of Freida, purchased from the Prairie Home herd of Mr. Greenway, at Crystal City, Man. He is a low-down, thick-set bull of good feeding quality, and his calves are coming of much the same type. An Ayrshire bull from the Central Farm and a Guernsey from the Hon. Sidney Fisher's are also kept for the benefit of those who wish to use dairy sires. In swine, Berkshires and Tamworths are kept.

Fall Wheat in Alberta.

[FROM OUR MANITOBA AND WESTERN EDITION.]

SOUTHERN ALBERTA.

In a recent issue reference was made to the growing of fall wheat in Southern Alberta. We have to hand a communication from Mr. Kettles, of that district, who has been experimenting in farming for a number of years on a small acreage —some 35 acres—to which he has been able to give thorough cultivation:

"The land I have been working is high, rolling bench land; a heavy wheat soil. I have grown ten crops of fall wheat and had but one failure, on account of sowing too late (September). I could not say the amount of manure used per acre, but it was heavy, and I find that the richest land in the Territories is improved by manuring and cultivation. Manure should always be piled and rotted before applying, if for nothing else than to kill foul seeds. I have sold during the past season alone over 600 bushels for seed."

FROM NORTHERN ALBERTA.

To the Editor FARMER'S ADVOCATE:

Your inquiries *re* fall wheat to hand. I have very little to say in reply, as I only came to Alberta in the spring of 1899. When I saw how the season opened and the ground dried on the surface, I could see no reason why fall wheat would not grow here. I therefore sent to an old neighbor in Ontario for some seed, and got three pounds by mail. I sowed some on August 25th and some on September 3rd. The latest sowing did not grow so much straw as the earlier, but stood up better and ripened as soon. I sowed in drills, and gave it no more cultivation than would be given a hundred-acre field. There was, however, a poplar grove or bluff that gave it more protection from winds than the average field would have. The Dawson's Golden Chaff is the variety I had. I cannot give the yield. Mr. William Shannan bought the whole crop in the straw for the C.P.R. Land Department. There were a good many men looking at it, and the lowest estimate I heard anyone make was 60 bushels per acre. I harvested it on the 8th of August. The soil is black loam or clay, with a hard clay subsoil. I used no manure, and don't know how long that particular piece of land had been previously cropped. It had been brush land originally. I think fall wheat will do as well here as in Ontario. I would risk Ontario seed every time, but the farther north in Ontario it was grown the better. On the 24th of May I measured one of the strongest plants I could find. It was 30 inches high. On the 2nd of July I measured again. It was six feet: a growth of 42 inches in 39 days. I don't think there was one plant winter-killed. I have sown a little this year, on the 29th of September, and if you wish will let you know how it comes through the winter.

J. W. SUDDABY.

[We shall be glad to hear further reports from Mr. Suddaby or from others who have experience to relate regarding the growing of fall wheat in Alberta.]

Preserving Farm Machinery.

A few years ago the writer had occasion to purchase a binder, and finding a second-hand machine in good repair, offered cheaply, purchased it. Afterwards, it was learned that the machine had cut no less than ten harvests, which would in many cases have quite worn it out, but this machine was in good condition and still does good work. To be sure, the machine was a good one to commence with, but the secret of its continuing good was largely owing to the fact that it had not only been kept well oiled and the parts tightened when required, but it was never allowed to remain outside exposed to the elements after the cutting season was over. In this connection, it is surprising that so many farmers persist in shortening the term of usefulness of their machines and implements by leaving them out for months after their term of use for the season is over, and even all winter in many instances. In travelling about we find a very great difference in the practices of different localities in this respect. Where really good farming is the rule, we see very little evidence of carelessness in leaving machinery out over winter where it was used. Good farming goes hand-in-hand with a close study of what pays and does not pay, so that such glaring losses as come from needlessly exposing expensive machinery to the elements is religiously guarded against. It is hardly necessary to point out that the man who succeeds is he who keeps just a little ahead of his neighbor, instead of doing simply what someone else found to pay, to figure out personally what is best to do and what should be avoided. Without an implement shed, frequently a barn mow can be turned to good account, but even though a shed has to be built to protect the machinery, it will pay well in coin and satisfaction. We believe we are well within the mark when we say that the repair bills for ten years of those who systematically protect their machines and implements will not exceed half those of their more careless neighbors, and they will have the satisfaction, too, that the machines and implements will run better and do better work than will those that have been neglected.

Fakers and Side Shows Still Catching it.

Mr. Joshua Bobier, a progressive farmer, of Oxford Co., Ont., who has for many years been a continuous subscriber to the FARMER'S ADVOCATE, in a P. S. to a business letter to the office, says: "I am exceedingly glad to see the faker element at our fairs catching it in your columns. I have long since been disgusted with it, and often thought of writing you my views on the subject. What do we farmers take our sons and daughters to the fairs for? Surely not to teach them to gamble, nor to show them evidences of immorality. I am sure no one can tell, till it is too late, how much influence such scenes as were on exhibition at some of our leading shows this fall has had on some young people."

DAIRY.

Apples and Apple Pomace for Milk Cows.

To the Editor FARMER'S ADVOCATE:

Apples are plentiful this year. As a consequence, the question has been frequently asked, does it pay to feed apples to cows giving milk? To answer this question we selected six cows from the dairy herd, in varying stages of lactation, for the purpose of an experiment. Three of these were given pulped apples in addition to their regular ration, and the other three were given apple pomace from a cider-mill in addition to their regular feed. Each cow was given about half a bushel of apples per day, and the cows receiving pomace were also given about half a bushel each per day. The apples cost 15 cents per bag, and the pomace was obtained free in Guelph. All the cows ate the apples greedily, but one of the cows started on pomace refused to eat it and we were obliged to put another cow in her place at the end of a few days.

The experiment continued for 16 days—October 4th to 19th, inclusive. The milk was weighed from each milking and samples were taken for testing. The monthly percentage of fat in September was taken as the test for the 16 days previous to the experiment, and is lower than usual, owing to the extremely hot, dry weather during the month.

YIELD OF MILK AND FAT.

The three cows fed apples gave 1,174 lbs. of milk, which contained 32.78 lbs. fat, during 16 days previous to the experiment. During the 16 days in which they were fed apples, in addition to meal, silage and pasture, they gave 1,122 lbs. of milk and 33.6 lbs. fat. The yield of milk decreased 52 lbs., and the yield of fat increased .82 lbs., though the latter was likely influenced more by weather than by the feed.

The three cows fed on pomace gave 1,063 lbs. milk and 38.58 lbs. fat during 16 days previous to feeding pomace, and they gave 1,063 lbs. milk and 39.39 lbs. fat during 16 days when they were fed apple pomace in addition to their meal, silage and pasture.

During the last three days of the experiment the quantity of meal was reduced about 2 lbs. per cow per day to note whether the apples or the pomace would maintain the milk flow if a portion of the meal were withdrawn. The three cows fed apples and a full meal ration produced 211 lbs. milk in three days, and during the next three days, when the meal was reduced 2 lbs. per cow, they gave 196 lbs. milk—15 lbs. less in three days.

The three cows fed pomace and a full meal ration produced 204 lbs. milk in three days, and during the next three days, when the meal was reduced 2 lbs. per cow, they produced 200 lbs.—4 lbs. less. One cow gave exactly the same quantity of milk as when getting a full meal ration, and the other two cows each gave 2 lbs. less during the three days when the meal was reduced.

CONCLUSIONS.

1. The three cows fed on apples decreased in their milk flow 52 lbs. in 16 days, while the cows fed on apple pomace increased their milk flow by 60 pounds.

2. Neither the apples nor the pomace maintained the milk flow during three days when the meal was reduced, although the pomace gave better results than did an equal quantity of apples. Five cents' worth of apples (at 15c. per bag) did not take the place of less than two cents' worth of meal.

Considering the flavor of the milk and butter, especially from the apple pomace, we should not think it advisable for farmers to feed pomace at all, and it would not pay to purchase apples to feed cows. In our experiment the milk flow was reduced by adding the apples to the regular ration. Whether that would be true or not in all cases would depend, probably, upon circumstances, such as the individuality of the cow, combination with other feeds, etc. We have both butter and cheese made from milk where cows were fed on apples, pomace, and rape, the quality of which will be reported upon later. We have, in addition, cheese and butter made from milk by cows while fed rape, apples, and pomace, to which was added "Virginia Cattle Food," a milk purifier. We purpose feeding some cows on turnip tops, when the crop is harvested, to which we shall add the "cattle food," to note effects on flavor of milk and butter. These experiments on flavors are not completed, nor are the cheese made ready for scoring.

H. H. DEAN.

O. A. C., Guelph, Oct. 23, 1900.