

## FIELD HUSBANDRY IN MUSKOKA AND PARRY SOUND.

Editor "The Farmer's Advocate":

It has been suggested to me by the Seed Commissioner, that it would be well to present, through the agricultural press, some of the general facts I observed while judging the standing fields of oats entered in this summer's competition in the Agricultural Societies at Gracembridge, in Muskoka, and Sprucedale and Sundridge, in Parry Sound. I find that thorough examination of fields reveals things not to be observed from the road, or from a cursory glance across them. I have also been much impressed with the benefit it may often be to a farmer to have someone inspect a part of his farm in this way, and point out freshly-imported weeds or insects, or to suggest possible improvements in the method of tillage, or more suitable varieties, or even merely to exchange ideas. It also seems possible that a general summary of facts, gathered during a somewhat minute inspection, such as this, of a given territory, might be of value to up-to-date reading farmers in various parts of the Province.

In the South Muskoka Society there were ten fields competing. The soil in this district varied from very light sand to moderately heavy clay loam. Almost all the farms seem to be tilled according to good farming practice. Systematic rotations are general, and a considerable amount of stock is kept, which last is manifested in the vigor of the crops. A number of the competitors have fairly pure varieties, and the first and second prize fields should yield high-class seed grain.

The district is free from noxious weeds. In only one case were wild oats found, and in another case twitch grass and black bindweed. These were the only troublesome weeds apparent in the district, and they occurred on only two farms, and in very small quantity. Of course, Canada thistle was in evidence. Where is it not? But even this ubiquitous pest was well held in check. The areas of forest by which the country is hemmed in hinder the spread of the weed seeds carried from place to place on the wind, and the separation of so many of the farms from each other by woodland, prevents in a great measure the spread from farm to farm. There are no large towns importing horse feed from weed-infested districts, and scattering the pests throughout the district in the manure; neither are the stock-raisers of the district of the feed-buying class. Sheep are raised in plenty, and they do a great deal to destroy weeds and keep them in check. Well-hoed root crops were also in evidence, as further witness to the good management of the farms, and the methods which are at the root of this immunity from weeds. Altogether, the district bears a clean bill with respect to weeds, and indications are that it will continue so.

This fact fits it well for the production of salable seed grain, and it seems quite possible that if the farmers of this district would pay attention to the maintenance of the purity of their varieties, and to the thorough grading of their seed, they would be able to dispose of their surplus product at good prices for seed. The practice is already common in the district of thoroughly grading the seed to be sown. Both the first and second prize fields were from seed that had been put through the fanning mill three or four times, and the uniformity of the growth gave ample evidence of the value of this commendable practice, and illustrates the possibility of growing as good seed at home as can be bought.

None of the competitors reported treatment for smut, and few seemed ever to have heard of it. Smut was very severe in some fields. There is little excuse for smutty grain in these days. Western farmers are alive to the loss which is incurred through smut, and the practice is now general of treating all seed grain with either formalin or bluestone. The growers in this part of Ontario should surely adopt the practice. The opinion seems current that smut is a thing of the weather; that it comes in certain seasons, and is not of any account in most seasons. Even if this were the case, it amply repays anyone to treat his seed to save the loss that may occur only every fourth year. One thorough treatment in two or three years answers for all practical purposes, however, and it is well worth the little expenditure.

The twenty fields judged in the Strong Agricultural Society were spread over a considerable area on both sides of the Grand Trunk at Sundridge, which is a little village midway between Scotia Junction and North Bay. The soil in this district is for the most part light and rolling.

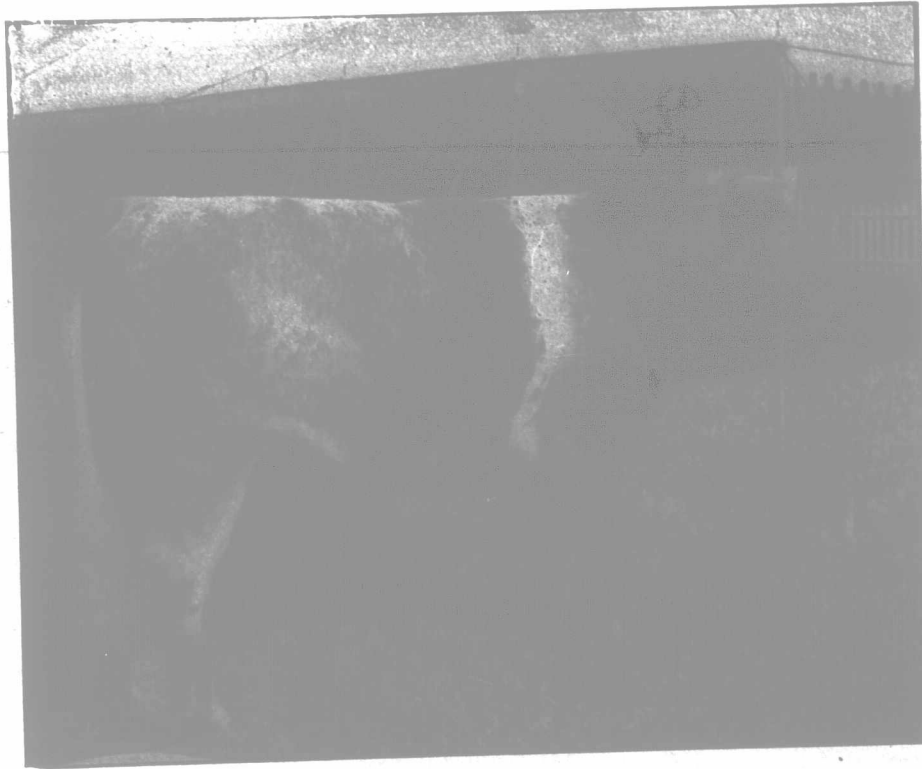
At the time of judging the standing fields, the district was suffering from twin evils—a prolonged drouth and a plague of grasshoppers. On account of the grasshoppers some fields of oats were cut green to save them from the ravages of this pest. The district is somewhat subject to attacks of this insect, which breeds in sod or waste land for the most part, and as there is much uncleared land all through the country, scourges like this are not infrequent.

Like South Muskoka, this district is very free from troublesome weed pests. Orange hawkweed is creeping in from the south, but the farmers seem alert to the dangers of this pest. There were not a few very good fields in this competition, and varieties were fairly pure.

Stock is not so much in evidence as it ought to

be. The soil is light and is rapidly losing its fertility, and for this reason stock-raising should be followed. In spite of occasional frosts in summer, potatoes are successfully grown, and in view of the fact that Ontario is importing potatoes from distant Provinces to supply her home markets, there seems no reason why potato-growing, which fits so well with stock-raising or dairying, should not become one of the major farming interests of this region. In this year of drouth the benefit of manure was easily seen in the oat crops. Invariably on the farms where much stock was kept the crops seemed less affected by the drouth, and maintained their vigorous color longer than did those on poorly-manured farms.

In the McMurrich Society, twenty-two fields were visited, lying in McMurrich and Ryerson Townships. The headquarters of this society is at Sprucedale, a town between Scotia Junction and Parry Sound. In McMurrich Township the land was somewhat light and level, and in Ryerson it was heavier and of a more rolling character. As a consequence the drouth, which troubled all Parry Sound, was more felt in McMurrich Township than in the other townships in the same district. Conditions and systems of agriculture prevail in this district similar to those in the Sundridge Townships, and with the exception of orange hawkweed, no serious pests have as yet gained any foothold. This weed, however, is reported to have been introduced into the district as a garden flower, and it is now firmly established. A number of the competitors had sown Western feed oats, and had not carefully cleaned the seed. As a result a number of distinctly Western weeds, such as cow cockle and ball mustard, which are new to this district, were in evidence. Therein lies a moral for the farmer—never to sow seed from a new district, unless it has been thoroughly cleaned. It is



Royal Chief =65495=.

Shorthorn bull, two years old. First in class, senior and grand champion male. Canadian National Exhibition, 1908. Owned and exhibited by A. Duncan & Son, Carluke, Ont.

very often the case, however, that no matter how carefully seed is cleaned it still contains weed seeds, which will gain a foothold in new districts through this means.

To one whose conception of this country of Muskoka and Parry Sound had been gained from rapid trips through on the train, or from the exaggerated tales of tourists, it was a surprise to find so much good agricultural land, and so many well-tilled thrifty farms. The country is essentially different from the southern part of the Province in respect to climate, soil and distance from markets, so that it is unfair to compare the possibilities of this northern part with the rest of the Province. While even among the natives of Parry Sound there appears to be a great deal of pessimism as an accompaniment of two years' drouth, it is certain that there is great possibility before the farmers of this district.

O. A. C., Guelph.

So much has been heard about the virtues of clover as a soil improver that it will come as a shock to learn that clover, when raised to be sold off the farm, may be an exceptionally thorough means of soil exhaustion. Clover takes from the air only one element of fertility, nitrogen. The potash and phosphorus it draws from the soil. When fed on the farm, the manure being carefully saved and applied, clover enriches the soil in nitrogen, humus and available potash and phosphorus. Sold off the farm, it leaves little or no nitrogen, while seriously depleting the supply of the mineral elements. The wise farmer, therefore, will plan to feed his clover on the farm. If hay must be sold, let it be timothy.

## THE DAIRY.

### THE FEEDING VALUE OF ALFALFA.

[By Prof. D. H. Otis, Madison, before the Fort Atkinson, Wisconsin, Farmers' Institute.]

A number of our experiment stations have been testing the feeding value of alfalfa. Some of the results as they relate to dairy production are given below:

#### IS THE PROTEIN IN ALFALFA EQUIVALENT TO THE PROTEIN IN GRAIN?

At the New Jersey Experiment Station one lot of cows was fed a daily ration of 35 pounds of corn silage, 11 lbs. of alfalfa hay, 6 pounds of mixed hay, and 2 pounds of cottonseed meal. Another lot of cows was fed in comparison on the same amount of silage and mixed hay, and received 4 pounds of wheat bran and 4 pounds of brewers' dried grains in place of the alfalfa hay. The cost of feeds per ton for these experiments were: wheat bran and brewers' dried grains, \$17, and cottonseed meal, \$26. The roughage was placed at the cost of production, \$2.50 per ton for silage, \$5.34 for mixed hay, and \$6.38 for alfalfa hay. The results show that there was a saving of 12.7 cents per hundred in the cost of producing milk, and 2.3 cents per pound in the cost of producing butter when the alfalfa ration was fed. On this basis, the New Jersey Station estimated that when bran and brewers' dried grains can be purchased for \$17 per ton, the alfalfa hay is worth as a substitute \$11.16 per ton. They figure that the average production of their land for three years at this rate amounted to \$51 per acre, and in one other year to \$74.21 per acre. They judged

from this experiment that the protein in alfalfa could be successfully and profitably substituted for the protein contained in wheat bran and brewers' dried grains.

A second experiment at the New Jersey Station compared alfalfa hay and corn silage with corn stover, corn silage and a grain mixture of distillers' grains—wheat bran and cottonseed meal. The analysis of the two rations showed that they were practically equal in both protein and total nutrients. The results at the end of one hundred and twenty days showed that although the purchased feed ration produced 20.6 per cent. more milk, it was figured that the value of alfalfa hay in replacing a feed mixture of wheat bran, distillers' grains and cottonseed meal, was worth \$14.50 per ton. This experiment indicates that a

pound of protein in alfalfa is not equal to a pound of protein in the grains used, but as the alfalfa can furnish the protein much cheaper than the grains, and while it may not be desirable to make an entire substitution of alfalfa for grain, it can, to a large extent, replace the grain.

At the Maryland Experiment Station fifteen cows were divided into two lots of seven and eight, respectively. One lot was fed a ration of alfalfa and corn meal. The other lot was fed corn silage and a grain mixture of malt sprouts, three quarts by weight; linseed meal, one part; gluten meal, one part; and corn chop, one part. These lots were fed for a period of twenty-eight days, when the rations were shifted. The lot that changed from alfalfa and corn meal to silage and mixed grains, produced 197.4 pounds less milk the second period than the first. The lot that changed from silage and mixed grain to alfalfa and corn meal gained 78.8 pounds of milk during the second period over the first. The total amount produced by both lots on alfalfa and corn meal was 7,248.8 pounds. The total amount of milk produced on silage and mixed grain was 6,972.1 pounds. This makes a difference in favor of the alfalfa and corn meal of 276.2 pounds of milk. It should be noted that where a small amount of grain is fed with the alfalfa, that the total results are favorable to the alfalfa ration, even though the other ration contained a greater variety of rich and appetizing grains.

The Maryland Station made an additional experiment in comparing a ration of alfalfa and silage without grain with a ration of silage and grain. The results show that the cows gave less milk when receiving the alfalfa and silage than those receiving the silage and grain. Although the ration of alfalfa and silage figured up well as far as digestible nutrients were concerned, it did not result in as large yields, and indi-