



H. McFAYDEN, B.S.A.

Representing the Seed Division in Manitoba and Saskatchewan.

the most costly food any animal can possibly utilise. Better, therefore, give turtle soup than allow farm animals to lose weight. It is impossible at all times to avoid these fluctuations in farm foods, yet I believe it is responsible for much of the breeder's troubles in abortion, misplacement, barrenness, etc., because the resultant poverty upsets the entire system, and prepares the way for every evil. I could name many mischievous parasites and microbes which attack only when the blood is either poor or impure; and, defying remedies, these enemies leave the system only when purity returns or poverty is superseded by plenty. I may here remark that a sudden return to plenty is a dangerous shock to the system.

"Every farmer must have noticed that, even with snow a foot thick, no grazing horse will sleep in the hovel where he eats his two-pennyworth of oats per day, the instinctive fear of the carnivora being the main cause. Under a hedge he might escape, but he imagines that he could be trapped in a hovel with three sides closed. See how a horse starts when anything moves in a hedge. This is easily traceable to inherited habit, and if it habitually disarranged the fetus it would ere now have annihilated the entire horse tribe by preventing any reproduction whatever. I am aware that an in-foal mare becomes less excitable. Her entire system changes. Her digestive organs become more active and efficient, and her coat begins to shine. Her ailments, if any, are minimised, and she is stronger and better than before she visited the stallion. These constitutional changes and improvements are the earliest evidence that she is in foal, but she is not at all susceptible to external influences, though anything internal, such as musty oats or mouldy hay, might so upset the constitution generally as to jeopardise the advent of a healthy foal. The first foal of some mares is the only good one, the explanation often being that during her first breeding season she is regularly worked, hence she is stable-fed. Next year, however, with the double tax of foal at foot and another internally, she is not worked, and consequently she is not fed with the farm horses. Out of sight and out of mind, the poor mare just keeps alive through the winter on the non-nutritious refuse of the threshing-machine, the straw and cavings; and is it any wonder that misplacements and other disappointments are the too frequent result?—I am etc., S. T."

FARM

The Saskatchewan Representative of the Seed Division.

We present herewith a portrait of H. McFayden B.S.A., who comes west this month to take charge of the work of the Dominion Seed Division in the Province of Saskatchewan. Mr. McFayden is a graduate of the Ontario Agricultural College of the class of '05 and for some time has been on the staff of the *Mail and Empire*, Toronto. He has been in the West and studied agricultural conditions here so that the problems of the Saskatchewan farmers will not be new to him. An earnest and convincing speaker, a clever writer and an enthusiast in any line of work he undertakes McFayden will do good work for the cause of agriculture in his adopted province.

A PAIR IN THE BOY PONY CLASS—CALGARY, 1906
'Brownies up'

Thorns and Thistles it Has Brought Forth.

It is one of the duties of the agricultural press to keep farmers informed of pests that have worried others in distant parts and to place before the public an account of the methods that have been employed in the combat. At present our readers are, among other things, face to face with the problem of the increase of weeds. So tenaciously have weeds lain hold of our fertile soils that people are liable to think that they have been visited with a pest new to the whole agricultural fraternity, whereas they are simply at a stage through which many another province, state or community has passed or is passing. Weeds in our land at the present time are simply the result of natural laws. In the economy of nature every plant and animal has its foes, and as any particular form of life increases out of proportion to its fellows the enemies of that plant increase simultaneously.

One of nature's functions is to maintain a balance, so we see that the primary cause of the prevalence of weeds is the natural opportunity for them to grow. Clearly, then, our policy should be to remove the opportunity for weeds to develop, and at the same time to maintain the returns from the land. This of course, necessitates the growing of a variety of crops.

We are aware that the growing of a variety of crops thus necessitating the keeping of more stock and the increasing of labor is not looked on with favor by the average man. Nevertheless, things have come to such a pass that it is not simply a matter of choice but of absolute necessity that such a course shall be followed unless there is a good market for hay apart from feeding it. Summer fallowing if extensively and thoroughly carried out will give partial immunity but it does not get to the real bottom of the trouble and alter conditions under which weeds peculiar to grain crop grow.

Of course it would be idle to suppose that there will be a sudden change from grain growing to that of a system of mixed farming. Such changes must come gradually, they must evolve but it is well to evolve intelligently. In this scheme of evolution there are certain crops that must play an important role, they are the tame grasses and clovers, barley and roots. The grasses are useful in that they are ready to cut before many of the most troublesome of weed have had time to form seeds. They smother out many weeds and the perennial character of their growth insures the decay of many seeds that would germinate if the soil had to be turned over for each crop.

Barley is particularly useful in the fight against weeds but even with a barley crop much more effective work than is generally done can be accomplished if the killing of weeds is made of as great importance as the growing of the crop. When barley is to follow wheat or oats it is too often the case that the land is left untouched until spring, whereas the fight might be pro-

longed and more effective if begun as soon as the previous crop is off.

The object should be to get the seeds of wild oats, mustard, French weed, etc. germinated in the fall by covering them with the disc or by light plowing. Then in the spring other seeds can be brought near the surface, germinated and killed in the cutting of the crop. Afterwards, if the land has not been seeded it can be cultivated very shallow again.

The action of root crops upon weed growth is too obvious to need discussion.

The advantages of keeping more live stock lie in furnishing a market for hay crops, barley and roots, and in the fact that in roaming over stubble fields they tramp seeds into the ground where they germinate and eat the growth off when it comes up.

Many farmers doubtless have tried these different methods and have failed to subdue weeds, but the secret of success lies particularly in the combined effect of intelligent cultivation variety of crops and the help of stock. Singly no one method can be expected to be an unqualified success. Weeds are persistent growers and it requires equal persistency on the part of the farmer to combat them.

We do not need to wait to see how any scheme of action will turn out. What we have said embodies the experience of farmers who have fought their fights with weeds under circumstance identical with those that exist throughout our grain belt. The history of farming operations in the older sections is but an advanced sheet of the story of our progress and from that we are shown the shortest and easiest way to success.

Alfalfa in Oklahoma.

The above is the title of a bulletin issued from the Oklahoma Station and as this crop has made many parts of the desert to blossom we submit a few extracts gathered from the experience of growers:

"This crop is being grown in every county in Oklahoma and in some sections, a fair acreage is present. From many fields as large yields are obtained as are produced any place else in the United States without irrigation. On the uplands in Oklahoma, as elsewhere, the returns vary. Where the subsoil is hard and impervious, the yields are quite meagre under unfavorable climatic conditions and the crop needs considerable nursing such as disking and harrowing, to keep the crab grass from taking the field in a few years. On these upland soils with the hardpan subsoils which grow cowpeas to perfection, the farmer who is not willing to inform himself about proper methods and to give his alfalfa fields much attention and care, should grow cowpeas instead. But as has been indicated before, alfalfa is being grown on such soil successfully and productively, not only in small areas.