

relations with this country it would be a boon to the beefing trade if our government could secure the entry of live cattle into those European markets, a condition which is certainly within the bounds of possibility and which would, if it materialized, add greatly to prices obtainable at present.

For many years the Ontario Department of Agriculture have specially sought to inform and direct our people along special dairy lines, as being a profitable branch of live stock keeping. Yet, in the face of having been reared in this industry, to my mind, if an agriculturist wishes to seek pleasure in his work, along with a fair degree of profit, there is no more desirable line than that of the beefing business. There is no other line of live stock keeping that fits in to better advantage with the varied operations upon the soil.

Many sections of Ontario are specially adapted to be, as they now are, the breeding ground of our several lines of domestic animals. When the breeders of beefing animals have attained their present standing in the breeding world, there is no reason why this high degree of excellence should not also be accompanied by a wide system of profitable feeding operations.

### Plowing Corn and Root Land

John Fister, Macdonald College, Que.

Having harvested the corn and root crops we should at once prepare the soil for the following crop. As we have cultivated and carefully cared for the hoed crops throughout the summer, it is worse than wasteful not to plow. Corn land should be thoroughly plowed to give the best results.

Corn rows that have been planted 42 inches apart can be turned over in four furrows. Corn that has been planted 35 inches apart can be turned in three. In plowing, care should be taken to cut as close as possible to the right side of the row, then, in turning the stalks over, the roots will be at the bottom of the furrow. Root land should also be plowed. If the tops of the roots are left in rows, they should be evenly spread as there is much nitrogen and plant food in tops. If left in bunches the crop will be patchy the following season.

The depth to plow will depend on the depth of the plant food in the soil. If the plant food is two inches deep, plow that depth. If 8 or 10 inches deep, then plow equally as deep, that is for autumn plowing. It was recently said to me that cultivating the surface or even shallow plowing was much easier than deep plowing. Quite true, it certainly is and the crops that are grown on such methods are easier harvested.

It is regrettable that we have so few plowing matches. It should be the first duty of every township to provide sufficient funds for prizes to encourage the young men to improve their ability as plowmen, and thereby increase their crops, make more money and make people happier. Good plowing—good crops.

### Wintering Idle Horses

A. Ross, Ontario County, Ont.

After the fall work is completed we change our food ration from hay to straw. Experience teaches us that the change must be made gradually. We reduce the hay ration and increase the straw daily for nearly two weeks, after which we may feed a full ration of straw with safety. Straw, with a gallon of rolled oats twice a day and a few roots occasionally, should keep the animals in good condition during the time they are idle.

We remove the shoes as soon as work is finished and turn the horses out in the yard for two or three hours each day.

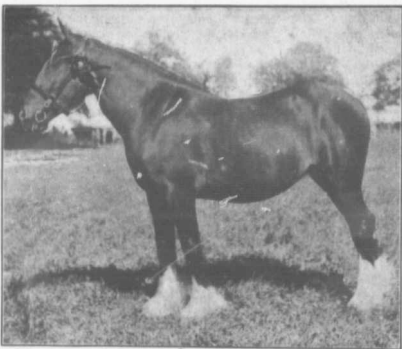
Last winter, by way of experiment, we fed our horses on the same mixture as we gave our cattle. This ration consisted of one part corn

silage, three parts cut straw well dampened with water. We also fed a few roots twice a week and half a gallon of whole oats twice a day. We would prefer to have the oats rolled. Our horses did well on this feed. We had no bad results and it is our intention to feed along this line this coming winter. We find it well to occasionally change back to hay for a feed or two, always taking great care not to over-feed, as sudden changes are sometimes very dangerous.

With colts that have been lately weaned to feed them a ration of this kind would not be economy. They should have all the good hay (clean clover preferred) that they can eat, also a liberal allowance of rolled oats, with occasional feeds of bran mash and roots. It is very important that colts be well cared for during the first winter.

### Care of the Brood Mare

The keeping of a brood mare in good condition during the winter previous to foaling depends almost altogether on the manner in which she is



A Useful Type of a Brood Mare

This two year old Clydesdale filly, owned by W. Sleeman, of Durham Co., Ont., took first prize at the Port Hope fair, 1908. She possesses lots of quality, and gives promise of becoming a valuable brood mare.

fed and exercised. When we reflect that the mare has not only her own life to maintain but is developing a new life in her system which is making many draughts on her organism, we can readily see the necessity of a liberal food supply.

However, the number of mares which are insufficiently fed is no doubt very small but I fear the same cannot be said in the matter of exercise. Hundreds of brood mares will go into winter quarters soon that will not have by any means sufficient exercise between now and spring to keep them in good condition. Many farmers think that because their mares are fat they are all right.

Fat is no evidence at all of condition, in fact if a horse is very fat it is a sign that he is out of condition. Condition in a horse is that state when every organ in the body is in good, strong, healthy working order, and this state cannot be produced nor maintained without regular and sufficient exercise. If a mare is in good condition herself at time of foaling the chances are that she will give birth to a vigorous foal with plenty of vitality; but if the dam is in a soft flabby condition, not an organism in the body in good shape for want of exercise, the chances are she will give birth to a weakling whose chances of surviving the first week are very small.

Brood mares should be exercised every day. Some will take sufficient if turned out every day and allowed to do so. Others of a sluggish temperament will not and should be made to exercise. Indeed the brood mare which is doing any rea-

sonable kind of farm work every day right up to foaling is more likely to produce a vigorous foal than if she had been doing nothing the greater part of the winter.

If every farmer who has a brood mare on his place this winter sees to it that she gets daily and sufficient exercise, from now till foaling time, I venture to say we will have a very much smaller per cent. of weakly foals than usual.—Centaur.

### Quack or Cough Grass

R. H. Harding, Middlesex Co., Ont.

I have been doing some experimenting with Quack grass since last July. Some of this grass was sown in a small garden patch on my farm about 70 years ago. It was called *Aver grass*, and was evidently brought there by an English family who lived on a corner of the farm while cutting down timber. From this plot the pest has gradually been scattered more or less over some 40 acres near it. It has never got headway enough to do much injury to growing crops, but it is annoying to the plowman and is heavy on the horses.

This past summer we had four and one-half acres of this field in red clover which we cut about July 5th. As soon as haying was finished (about July 15), we plowed that field about three and one-half inches deep, and afterwards disked it several times until we got it settled so that the spring-toothed cultivator would not turn up any of the sod. Then we put the cultivator to work and cultivated it once each week, first lengthwise of the plowing, then crosswise and so on until the end of September. By this time we had such a network of dried rootlets on top of the ground that it was difficult to cultivate on account of the cultivator filling up. We gave it two workings with the cultivator in October though it was practically unnecessary, as scarcely a green spear could be seen.

It is our intention to have the field in that condition over winter, and surface cultivate it next spring and seed it with barley and alfalfa. We believe that the top three inches of grass roots are thoroughly killed and they make a good top dressing for the field. If we plowed it we would turn this top dressing down too deep for immediate benefit, and we would likely turn up live roots that would go on growing and filling the surface soil with their network. It is a grave mistake to rake up the roots and burn them (as some writers advocate), because they are very rich in fertility.

It is not necessary to summer follow to kill couch grass as one can just as well grow a crop of clover or barley. Most farmers are too busy early in the season with hoe crops, fencing, ditching, etc., to give this stuff the close attention it requires, besides the growing season of May and June causes such rapid growth that it is against the work.

To anyone that tries this plan I would advise not to expect to cover the ground with rootlets the first few times you cultivate. Keep faithfully at it and you will find it one of the best plans of banishing quack that you have ever tried. While this season of the year is not the right season to commence to clean a field of couch or quack grass it might be an opportune time to open up a discussion that should draw out the ideas of people who have had more or less experience with this grass.