

It almost makes one flinch every time he sees a lame horse put the sore extremity to the ground. If it is the result of accident and the injury is not permanent it is not so serious, but where the lameness is the result of some unsoundness the case is a bad one. No unsound horse is able to do the amount of work he could do if he were sound. This should be remembered in breeding and buying horses.

Young colts (sucking and yearling) are not often a strong feature of the horse shows held annually in connection with our fall exhibitions. There is no good reason why more of the youngsters should not come forward, for the breeder's real value to the breed and to the country lies in his ability to so mate his stock as to produce high-class colts. True, colts are more difficult to fit, and true they should not be over-fitted, but why not bring out more of them in average condition and make the shows as strong in the younger classes as in those for two-year-olds and three-year-olds and aged animals.

Effect of Exercise in Fattening Horses.

Each year a number of horses are fed up or fattened for sale. Some give the horses exercise, while some keep them as quiet as possible. It is generally necessary to give a little exercise to keep the animal's legs right, but aside from a discussion of the injurious or non-injurious effect of idleness, it is interesting to note what effect exercise has in the fleshing of the horse. In an experiment carried on at the Illinois Experiment Station where seven horses were not exercised, and thirteen were walked 2.8 miles daily for a period of 84 days, it was found that the horses getting exercise made 41 pounds less gain per head, or an average of nearly one-half pound less per day than those not getting exercise. So far as could be observed, the horses not getting exercise remained in as good health, and retained their appetite as well as those regularly exercised.

There is even a difference between the gains made by horses fed in loose box stalls, and those tied in narrow stalls. In connection with the same experiment ten horses were kept in each of these two types of stall for 84 days, and those in the single stalls gained 2.4 lbs. daily, as against a gain of 2.2 lbs. daily made by those running loose in the box stalls, or a difference in favor of the tied horse of .2 lbs. daily.

Absolute idleness with no exercise whatever is not believed to be in the best interests of any horse, taking into consideration his usefulness in after life.

Horse fattening has many problems, and the man engaged therein usually has little concern as to the horse after it leaves his hands. A mature animal is not injured by this idleness to such an extent as the younger stock, and as most horses are not fattened until they are mature, there is not so much damage done.

The full results of these experiments carried on with the fattening horses are contained in the following summary.

1. A mixed grain ration of corn and oats, when fed with clover hay, is more efficient than a single grain ration of corn for producing large gains in an eighty-four day feeding period.
2. While a ration of corn, oats, and clover hay is more expensive with prices of feeds (corn 35c per bushel, oats 30c, bran \$20.00 per ton, oil meal \$27.00 per ton, clover hay \$8.00 per ton, and timothy \$9.00 per ton), than one of corn and clover hay, the gains are such as to make its use more economical.
3. Clover hay when fed with a mixed grain ration of corn and oats, is more efficient for producing gains than timothy hay. In this test clover hay produced 58 per cent. more gains than timothy.
4. A ration of corn, oats and timothy is not satisfactory for producing finish in fleshing horses for market, but may be materially improved by the addition of oil meal.
5. Experiment No. 2 showed but little difference in the efficiency of a ration of corn and oats, where the oats and corn were fed in equal quantities by weight, with clover hay as roughage in each ration.
6. A ration of one-fourth oats and three-fourths corn, proved more economical than one of half oats and half corn.
7. A ration of corn and bran fed in proportions of one part bran to four parts corn by weight is superior to an all-corn ration for producing gains when fed in conjunction with clover hay.
8. This test seemed to indicate that there is danger of feeding too much bran for best results, when clover hay furnishes the roughage part of the ration. The bran and clover combined produced a too laxative condition.
9. A ration with a nutritive ratio of 1:10 is too wide for best results in fleshing horses. In

these tests the narrower the nutritive ratio the larger the gains. Best results were secured with a nutritive ratio of 1:8.

10. Exercise has a retarding effect upon the taking on of flesh. In this test the horses receiving no exercise made 24 per cent. more gains than those having a daily walk of 2.8 miles.

11. While the box stalls are safer than single stalls for stabling horses, they are also more expensive, and do not offer merits not possessed by single stalls so far as they may influence the horse in taking on flesh. The horses stabled in single stalls made 16 pounds or 8 per cent. more gains in 84 days than those in box stalls.

12. Thin horses of some market classes will not return as large a profit in feeding as those of other classes. The kind of horses it will pay best to feed depends partially upon the season of the year when marketed. All heavy horses will pay better than light horses, and good and choice animals better than those of the lower grades.

LIVE STOCK

For quick returns few classes of live stock equal the pig.

Feed the ram a little grain through the breeding season. Stronger lambs will result.

Ewes in good condition when bred drop more lambs than those served in failing flesh.

Dip the sheep before they go into winter quarters. Choose a warm day when the sun is bright and let the sheep out in a sheltered yard to dry.

Cold rains are bad on the flock. If possible give them protection under a shed or in a pen during the raw, beating late-fall storms.

It is good practice to feed all milk to the calves from pails. Each calf gets his own share and the troughs are not nearly so likely to become sour.

Removable partitions between two or more box stalls make it possible to increase the size of the stall as the calves grow or as more space is required.

Box stalls for the calves with stanchions or chain ties while feeding will solve the problem of preventing the injurious habit so common among skim-milk calves of sucking. Twenty minutes after feeding the calves may be let loose again.

Provided the food is kept sweet and is not allowed to stale in any way, hogs will eat more when it is soaked than when it is fed dry and will make larger gains. The gains are due to the larger amount of grain consumed and not to any effect of the soaking.

Seventy good hogs fed for the entire summer on five acres of red clover and getting only twenty-five pounds of meal a day were lately seen on the Prison Farm at Guelph. These hogs made rapid gains and thrived well during the entire summer. A free run and clover pasture is an economical method of feeding hogs.

If cattle are to be fed corn they will do quite as well during the early stages of corn feeding on bundle corn direct from the field, as they will on corn that has been prepared for them at a great expense of labor, says Prof. Andrew Boss. Several feeders in Minnesota are successfully finishing their cattle on bundle corn, and secure excellent returns from their corn crop by reducing to the minimum the cost of production.

Feeding Value of Wild Flax Seed.

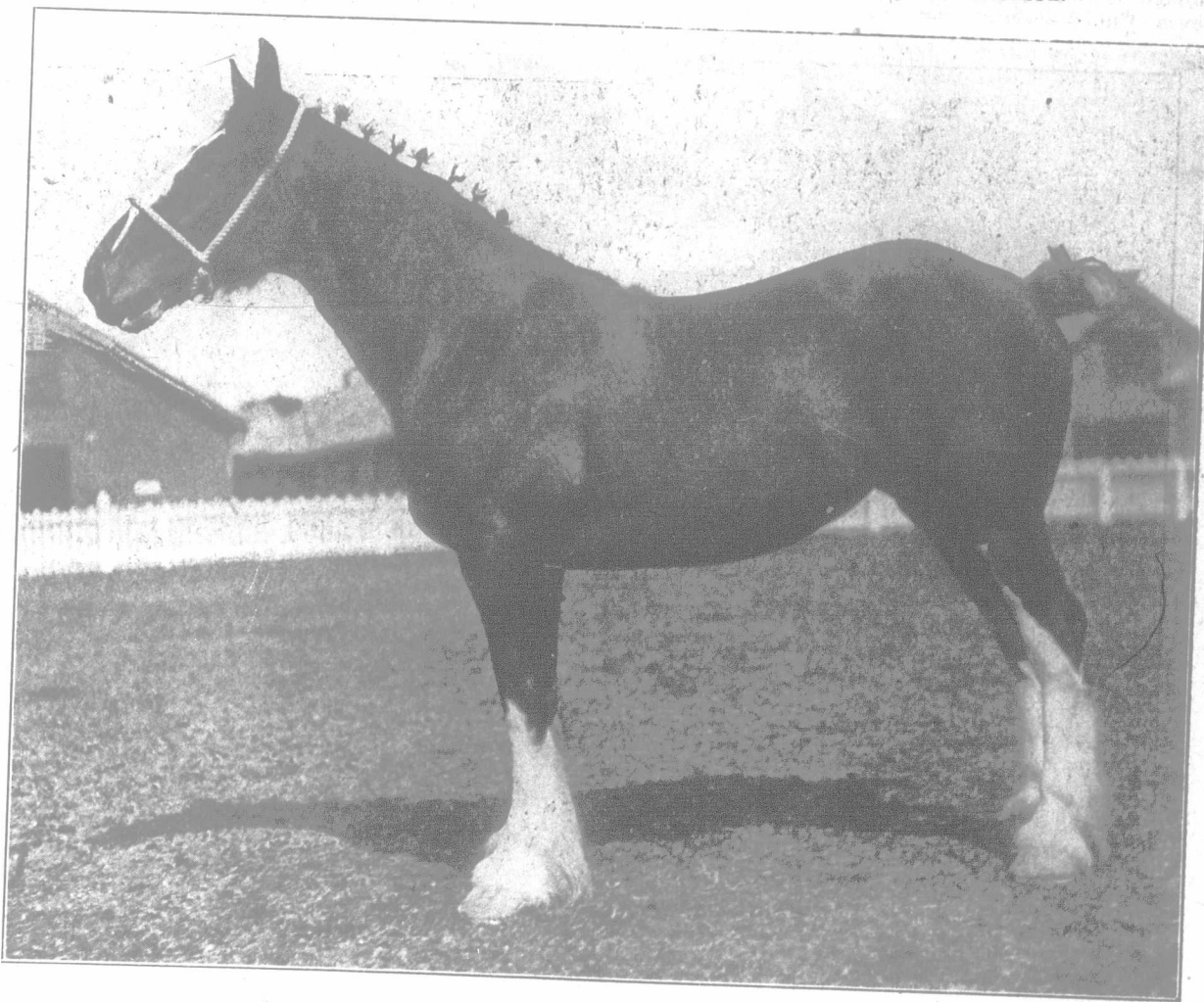
Editor "The Farmer's Advocate":

We will probably have 50 bushels of wild flax to clean out of our wheat this year. Could this not be economically used to feed our milch cows by mixing it with silage and chaff? Of course we could boil it and kill the seed and it would then be fit for feed, but we haven't a suitable place to boil it except on the stove and we doubt if that would pay us.

Halton Co., Ont.

This query was referred to E. S. Archibald, B. S. A., Dominion Animal Husbandman, who replies:

"Regarding the feeding of wild flax seed to dairy cows, this seed contains a high percentage of oil, but unlike our grains, contains a very low percentage of starch. The food value of this oil in feeding experiments with sheep has proven highly satisfactory, hence the whole flax seed, if mixed with the grain ration, or if fed on the silage or pulped roots should give profitable returns. I would suggest that this be mixed with the roughage after the latter has been proportioned out to the cows. In this way no grain will get an excess of this very rich product. As yet very little data has been gathered as to the advisability of boiling flax seed for live stock feeding. This is due almost wholly to the fact that the oil of the flax seed is more valuable for commercial purposes than for live-stock feeding. Nevertheless, from the data gathered I scarcely think it would pay to boil the flax seed. This oil is in a readily digestible condition and should be almost immediately assimilated.



Boro Heiress.

First-prize Shire filly, two years old, at Toronto and Ottawa, and champion of the breed. Owned by Colony Farm, Mt. Coquitlam, B. C.