

# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

\* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE. \*

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## Winter Feeding of Horses.

With a winter climate such as we have in the West, and a shortage of feed, especially of first-quality stuff, it behooves the farmer to look well to the feeding of his horses. Too often the sequel of conditions such as we have at the present time is a heavy death-rate among farm horses; such, of course, would be lamentable, owing to the great amount of spring work to be soon tackled, and the increase in prices of workable horseflesh. The reasons for such a sequel are not hard to find, viz.: (1) Lack of exercise, and (2) a lack of variety or succulence in the food. A common result is distension and paralysis of the bowels, usually fatal. It should not be forgotten that the digestive tract of the horse differs markedly from that of the cow, and that while roughage in the form of straw, hay, etc., is necessary for both classes of stock, yet lack of exercise and succulent food will surely end in bowel troubles among the horse kind. Rational methods of feeding are to be preferred to *indiscriminate* drugging, one form of which is the use of the so-called condition powders, which, by the way, is a *very expensive* method of feeding *linseed meal* to live stock. The use of linseed, flaxseed, bran and roots is to be recommended in the compounding of a ration. Many farmers seem to think that bran is of little food value, which is a great mistake: it has an excellent effect on the digestive organs, and by the addition of water, in the form of bran mash, becomes a valuable laxative; for young, growing horses bran should never be omitted from the ration. Roots can be fed raw or steamed, either method being very satisfactory. In the writer's experiences in the winter feeding, roots and straw, with a little grain at night, made a wholesome and consequently satisfactory bill of fare, exercise in a large yard being also given. In this respect a low temperature does not injuriously effect horses put out every day for exercise. A recent visit to the big Oaklawn farm of Durham, Fletcher & Coleman, showed the winter ration for the horses to consist of steamed sugar beets, bran and straw, and nowhere can young stock be seen in better condition. In this Province boiled weed seeds and grains, mixed with cut straw, give the much desired variety to the menu: the cooked seeds seem to have a laxative effect. In districts where hay is scarce, large quantities of straw, preferably cut, may be used along with the grain, for working horses, and will be found both economical and satisfactory. Should a horse show signs of being off feed, remove all coarse food, hay and straw until on the road to recovery, or pursuant to the advice of your veterinarian. Sick horses often pick away at hay or straw, and thus consume more than the system is able to properly take care of.

## Preservation of Soil Fertility.

In our last issue, editorial reference was made to the important question of the preservation of soil fertility. While the value of the bare summer-fallow as a means of destroying weeds and conserving soil moisture must not be overlooked, still, the fact remains that the fallow, after all, adds no fertility, but rather tends to more rapidly diminish the fertility of the soil, by making available an excess of nitrogen in an easily soluble form, which may be wasted before it can be made use of by growing crops. The lamp of experience should be used to throw light on the best methods of conserving and increasing soil fertility, in which connection the work of two great Experiment Stations, Rothamsted, England, and Geneva, New York, may be cited. Experiments at these Stations have shown that the greatest loss of fertility occurs on bare soil. It was found that the loss of nitrogen per acre on bare soil averaged 280 pounds yearly; on land growing a corn crop, only 90 pounds per acre was needed, and on sod, practically nil. On the bare summer-fallow, 280 pounds of nitrogen was

made available, of which, after deducting 90 pounds necessary for growth of a corn crop, which nitrogen could not be counted as wanted, there was left 190 pounds of available nitrogen, in the form of nitric acid, a very soluble and easily-washed-away form: a very significant result, showing as it does that cropping along with a proper rotation serves to conserve fertility more than does the bare fallow. D. S. M. Babcock, the noted agricultural chemist, commenting on these experiments, says: "To conserve nitrogen, we must keep the soil at work growing crops. The greatest losses on the land are between June and September, the summer heat rendering the nitrogen soluble, in which form it may be washed away by fall rains: hence, some form of crop will save that waste by using the available nitrogen, storing it in the plant and its roots. Bare summer-fallow exhausts land faster than judicious cropping, although the first crop after the fallowing may be a large one, due to the great amount of available nitrogen, such amount being far in excess of the crop needs, hence the loss. The greatest loss will be found to be in the black soils, which usually contain lots of humus. The more fertile the land originally, the greater the losses may be." In this issue we publish the opinions of a number of practical farmers on the best methods of handling their land. It will be noted that these letters cover a very wide range of territory, including almost every variety of soil.

## Favorable Results With Spelt.

In reference to your inquiries re spelt, the Russian grain recently introduced into Manitoba, although last season was exceptionally hard on all kinds of grain, I cannot but speak very highly of our first trial of spelt. We got eight bushels of seed, but did not sow it until the 15th of June. On account of the lack of moisture, it did not germinate until the rain came the first week in July, yet, although so late in coming up, and having been sown on poor land, it came on very rapidly, and we harvested it the first week of September. It was left in stook 8 days, then stacked and threshed on the 15th of September. The yield (45 bushels per acre) was surprisingly good under prevailing conditions. The grain should be cut when the head is beginning to change color. The straw will be still green, and must be bound in small sheaves and put up in long stooks, so that it will dry out thoroughly. When threshed the straw is equal to the best hay, as we have tested it. The grain somewhat resembles barley, only larger. It is claimed that for feed it is as strong as the best corn, and judging from what we fed, the horses prefer it to any other kind of grain. I have read in your issue of the 5th of January a communication from the Province of Ontario in connection with tests made with spelt, in which they did not prove satisfactory. Notwithstanding this, I have not changed my mind in regard to the growth and real value of this grain to the Manitoba farmer, and have so much confidence in its merits as feed that we will sow at least 100 bushels this spring. One of our neighbors sowed some four acres on good land, and had from three to four tons of straw per acre, the yield of grain being equally good. We will have a small quantity left for sale.

D. SUTHERLAND.

Springfield Municipality, Man.

## Those Infertile Eggs.

I believe that the columns of your paper are open to subscribers, and that a fair criticism or discussion of any subject is enlightenment for all. In your issue of Jan. 21st there appears a letter under the heading, "Fertile or Infertile Eggs—Which?" In 1885 I was in the northern part of Alberta, and eggs were eighty cents per dozen. I do not for a moment doubt but that Mr. Powell is sincere in what he writes: still, it is almost impossible to believe that an egg that had been under a hen for six weeks would be palatable to the taste. I would be inclined to think that those six-week eggs were in some mysterious way removed and fresh ones cooked instead: either that, or else there is no material change in the quality and price of eggs in the Territories since 1885. I shall certainly test Mr. Powell's experience at first opportunity, but a small boy shall be asked to sample the eggs.

W. G. POTTER.

Manitoba.

## A Vision.

WHAT THIS CENTURY MAY BRING.

Sitting by the stove this intensely cold evening, the first of the year, the first of the century, looking back upon the past century, comparing it with the century before, we are led to exclaim, "What hath man wrought? What heights and depths of research, what grand achievements, what glorious results!" Great discoveries have been made in all branches of science. But in no branch of science has greater discoveries been made than that relating to life in the human, the animal or vegetable world. The source of disease in these three kingdoms have in nearly every case been discovered, and in a great many cases the remedy. What vast advancements have been made in farming, improved machinery, improved methods, improved stock, improved grains.

Judging from the advancement made in the past fifty years, I look forward into the twentieth century, and this is what I see: I am not a prophet, nor the son of a prophet, but, judging from the past, I see, before the century is out, all railways, all canals, all steamships, all elevators, mines, etc., controlled by the Government, all the great monopolies destroyed, and the Government controlling. I see the farmer enjoying the fruits of his labor (not robbed and defrauded on every hand), every farming industry advanced, and every farmer taking an intelligent interest in his work, because he knows he will be rewarded. The Government controlling the railways and steamships and canals will give him (the farmer) transportation rates at lowest cost (no large railway monopolies to be made rich). When the farmer brings his wheat to the elevator, it is with the assurance of getting full value for his grain (there will be no middlemen to be enriched). The farmer will fatten his stock, make butter and cheese, or it will be made for him; he will raise poultry of the best, and produce eggs and fowls of the choicest, because the Government will find a market for him, and sell to the best advantage without enriching itself, thus giving the farmer the advantage. Veterinary science will investigate and search till the bacteria that destroys so much life will be annihilated, thus saving thousands of dollars to the farmer each year. Medical science will study and investigate the human system and its ills and remedies, till disease will not prey upon the human system. Instead of man's life growing shorter, it will grow longer, and his capacity for enjoyment will be increased a hundredfold. Agricultural science will search and delve until it thoroughly masters the disease that destroys so much of the vegetable kingdom, and so thoroughly will it be annihilated that it will be known only in history.

Agriculture will be one of the best-studied sciences known. Frost and drought and all these difficulties will be overcome, and instead of the land yielding fourfold it will yield an hundredfold. I see Manitoba and the N.-W. T. covered with mighty fields of grain, magnificent cattle roaming the field of luxuriant grass which science has helped nature to produce: beautiful homes dotting the country, and peace and prosperity reigning in every home. British Columbia, with her vast mines of wealth developed, mighty forests of fruit and fields of vegetables, her beautiful dairy cattle scientifically fed to do their utmost. The Eastern Provinces, with their beautiful homes still more beautiful, their fields and orchards and gardens and stock all of a superior class, every person taking a pride in his farm and home, and from the Atlantic to the Pacific filled with a contented and happy people, numbering not 5,000,000, but 75,000,000.

Judging from the past achievement in agriculture during the last 30 years, from the rude cradle to the self-binder, we dare not say what will be even during the next fifty years. There is no doubt but electricity will play an important part in agriculture in the coming century. It will in all probability be yoked to the plow, to the wagon, to, in fact, nearly everything that will reduce physical labor. The readers of the *ADVOCATE* of to-day, including myself (except in prophetic vision), will not see the accomplishment of such wonders, but our children's children will enjoy these blessings just as we enjoy privileges and blessings our forefathers could not conceive of.

J. B. POWELL.

East Assiniboia.