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Be sure and keep the bandages out of sight so far as use is concerned and give plenty of room to exercise.

Hoping this will reach A. S. before he kills his colt or has a chance to.

Fielding, Sask.

BERT IVESON.

## STOCK

(Contributions invited. Discussions welcomed.)

### The Waste of Manure.

According to Prof. Cyril G. Hopkins, of the University of Illinois, the waste of barn manure in the United States amounts to three-quarters of a billion dollars a year. Careful estimates by the U. S. Department of Agriculture show that the 180,000,000 domestic animals produce annually two and one-third billion dollars' worth of manure, of which at least one-third is wasted. Putting it another way, the average American corn crop for the past ten years has been two and a quarter billion bushels, and the manure wasted is equal to the value of this whole crop at 33 cents a bushel. The \$75,000,000 worth of commercial fertilizer used in the Republic each year is equal to only one-tenth of the annual waste in farmyard manure. And yet, with this stupendous economic loss constantly facing them, there are farmers—never the best ones, either—who will say they are farming as well as it is possible to do, and that the study of soil chemistry is a fruitless search. It is hard to convince a man who does not wish to learn.

In Canada, be it said to our credit, there is less waste in the handling of farmyard manure than across the line. We suspect, however, that if the truth were known, the loss in this country is not far short of one-third the potential value, if we were to count leaching and washing in the field as part of the loss. Not all this waste can be eliminated by the most thrifty methods, but there is a grand opportunity to reduce it, and the knowledge that it is constantly going on should cause us to think, and think hard. Underdrainage of fields, cement doors in stables, water-tight barnyards, manure spreaders, and prompt application to the land, are essentials in the utilization of manure to the best purpose, and with a minimum of loss.

### More Experiments that do not Determine.

The Utah Experiment station has been conducting some of those absurd experiments in the endeavor to determine which "breed" of hogs makes the most economical gains grazing and under pen conditions. The results are interesting, as indicating how contradictory such experiments are and as a further proof that the relationship of breed to cost of production is very largely incidental, although type to a certain extent is a guide. The real factor that affects production is something in the inherent character of an animal, and as there are many animals and many families and strains within a breed all varying in their inherent characteristics, it is obvious that the mere circumstance of a breed is little guide to determine the productive potentialities of any animal. Below we republish from the Utah bulletin the results of the experiments mentioned:

#### GRAZING EXPERIMENTS WITH SWINE.

During the summer of 1905 investigations were started to compare the grazing qualities of purebred Tamworth, Yorkshire, Berkshire, Poland China, and Tamworth grades. The bacon type was well represented by purebred Tamworth and Yorkshire, and the lard type by Berkshire and Poland China grades. There were six pigs in each lot the first year and five the second year.

The following table gives the combined results of the two year's tests extending an average length of 107 days:

BREED	Gain per pig per day—pounds	Shorts consumed per one pound gain	Skim-milk consumed per one pound gain	Cost of one pound gain exclusive of alfalfa	Average weight of pigs at beginning of experiment	Average weight of pigs at close of experiment
Tamworth	.78	2.31	6.70	\$3.31	53.6	140.6
Yorkshire	.70	2.52	8.17	3.75	48.1	126.2
Berkshire and Poland China grades	.74	2.46	7.1	3.52	56.0	137.7
Tamworth grades	.73	2.46	6.65	3.45	56.8	137.8

Purebred Tamworths gave the largest gains at the least cost, while purebred Yorkshires gave the smallest gains at the greatest cost. Notwithstanding the fact that the Tamworths were the youngest and were the lightest in weight when the experiment began in the first trial, they led in both gain and cost of production. In the second trial the purebred and grade Tamworths were equal in gain and cost of production, but the grades were older and were heavier in weight when the experiment began.

At the close of the grazing experiment the first year, all lots were put in pens and fed grain, skim-milk and sugar beets, exclusive of preliminary period, for fifty-seven days. In this the purebred Tamworths were first in gain and third in economy of production; the Tamworth grades second in gain and first in economy of production; Poland China and Berkshire grades third in gain and second in economy of production, and purebred Yorkshires fourth in gain and fourth in economy of production.

In the three experiments, two in grazing and one in bare pen, the Tamworth grades on an average were little ahead of the Berkshire and Poland China grades. The purebred Yorkshires in these trials as well as in the maintenance work in which alfalfa hay formed a large part of the ration, were not the equal of the other breeds. They did not prove to be robust, vigorous feeders.

The raising of swine in Utah has never received the attention from the farmers that its importance demands, presumably because little is known of the cost of production. A great many feeding experiments have been carried on at this station from time to time, but no records have been kept of what it costs to produce pork in its various stages, including the cost of the keep of the sow. In securing the figures in the following table the animals were fed various products of the farm, some of which could not be utilized in any other way. In every instance the sows and pigs had the run of a grass paddock if not of an alfalfa field. The aim was to so regulate the feed as to keep the sows in good thrifty condition and the pigs growing from birth until disposed of.

### Plowing at Boissevain not Sensational.

The plowing match at Boissevain in June was not a success from any standpoint. Nine plowmen were upon the field, but there were so many classes that the competition was not keen. The people did not appear to take much interest in the match and the officials find little encouragement to continue it. The Turtle Mountain farmers being men who as a class understand their business, should be able to see a lot of good in a plowing match and should turn in and get up a good one.

DEAR EDITOR:

We look forward to receiving the FARMER'S ADVOCATE with our mail every Saturday, and have a good time every week-end reading its contents. My wife takes a great interest in the Poultry and Veterinary columns, which contain some very useful information. Wishing your paper the success which it deserves.

Highclere, Sask.

S. T. COOPER.

## FARM

(Comments upon farming operations invited.)

### Oliver's Proposal not a Free Grant.

EDITOR FARMER'S ADVOCATE:

Kindly allow me to comment on your editorial "Is it wise to double the free land offer?" which appeared in your issue of June 26th. You are laboring under a misapprehension in this matter. Nobody has asked that the free land offer be doubled, nor has Oliver's bill any idea in doubling the free land grant. A pre-emption of 160 acres at a fixed price to every homesteader is not an additional 160 acres of free land. It is well-known in Saskatchewan and Alberta that every homesteader expects to get, or tries to procure for himself, 320 acres for his farm. In the past, he has purchased land adjoining him, 160, 320 or 640 acres, as his means will allow. The system known as "dry farming" is extensively practiced. This system provides for one-third of the cropped area to be summer-fallowed each year. A man requires at least 320 acres in order to make provision for such dry farming. In the district controlled by the Saskatchewan Valley Land Co., the even-numbered sections were granted as free homesteads. The remainder having been secured by the Saskatchewan Valley Land Co. at a nominal price of, say, \$1.00 an acre, was sold to the homesteaders. The price charged to the homesteaders was at first, \$5, \$6, or \$7 per acre. These prices advanced to from \$7 to \$10 and in recent years, the price was increased to anything from \$12.00 to \$20 per acre. You can readily understand that a new settler paying such prices for the land other than his homestead, is crippled in his farming operations for many years. His buildings are poor, his implements are poor and he is not in a position to purchase live stock.

The cry throughout the Western country is that Government lands be no longer disposed of in large blocks to any corporation or company to make enormous profits out of the same, out of the actual settlers. The Dominion Government holds vast areas not yet disposed of. These lands must be administered and the question is, how can they best be administered for the benefit of the settlers, cutting out the speculator altogether.

Oliver's bill recommends that 160 acres of the odd-numbered sections be sold direct to the homesteader at the nominal price of \$3 per acre. There is no doubt but that speculators would be glad to purchase all these lands from the Government at \$3 an acre and possibly charge from \$7 to \$10, \$15 or \$20 to the actual settler for the same. It is the fear of such a situation that makes settlers favor Oliver's bill. If a profit is to be made out of these lands, let the Government put the price on and receive the benefit.

In another letter, I shall comment on what you say re sparseness of settlement and the overwhelming preponderance of bachelors.

Moose Jaw, Sask.

HUGH MCKELLAR.



RESIDENCE OF JOHN F. GUNN, "OAK LAWN" FARM, GREEN RIDGE, MAN.