

be an advantage, the average man pleaded excess of work, but if a little pruning were suggested out came the jack knife right away. Nature would do all the pruning necessary in her own good time and way. The temptation to use a jack knife seemed irresistible to most men, and the speaker wished to warn his hearers against it.

The meetings were in most cases fairly well attended, and at every meeting questions as to fruit growing were asked and much interest manifested in tree growing generally.

FIELD NOTES

Interesting Lectures at Brandon

Interesting features of the live stock industry were discussed at the Manitoba Winter Fair at Brandon recently. Following valuable addresses by experts came a series of questions from the audience that indicated a tendency to devote time to something other than the production of wheat and oats.

"TIME FOR A CHANGE"

"Is it time for a change with you people in the West?" was the question put by John Campbell, of Woodville, Ont. He opined that the province of Manitoba had reached its limit in wheat production. It was now time that stock raising was adopted. With advanced agriculture in Canada there is more room for the use of brains than in any other occupation.

Manitobans should be proud of the display of Clydesdales at this show, but they should make all classes of live stock of equal merit. He advised stocking the farm with horses, cattle, sheep, pigs and poultry and much would be done to keep the boys and girls on the farm.

Coming to the question of cost of production of grains, Mr. Campbell wondered if Manitoba's average wheat yield was profitable. In Ontario, it was considered that it required thirty bushels of oats to pay expenses. Improved methods combined with stock raising had done much to make better returns in Ontario and it would do the same in Manitoba.

Mr. Campbell then took up the feeding of export cattle and said that the best profit was made from thorough fitting of the proper type of animal. No man should forget that much depended on the sire used. For cheap production of highly finished beef he advocated rape. Hundreds of thousands of dollars were lost annually by placing unfinished animals on the market. Cheap gains could be made during summer and fall. It was estimated that on summer feeding 100 pounds of gain could be made at \$2.50 to \$3.00, while in stable feeding the cost per hundred ran from \$8.50 to \$10.00.

In speaking of cost of feed, Mr. Campbell said that of feed consumed only one-fifth was taken up by the animal system and the greater part of the remaining four-fifths could be saved and returned to the soil. Feeders should provide succulent food such as turnips, mangels or sugar beets to use with grains and the returns would be satisfactory.

Question—How will ground flax do as a substitute for turnips?

Answer—Flax is fairly good but oil cake is much better.

Question—How will rape do on summer fallow?

Answer—I think it is one of the best systems you can adopt if you can get sufficient moisture into the soil. Then it will not be necessary to plow before sowing grain again.

Question—What would be the profit to the man who raises cattle? You have spoken of feeding animals that were bought.

Answer—The man who grows good ones is foolish to turn them over to a neighbor to finish.

PRACTICAL CATTLE FEEDING

"What should be done to improve prices for Western cattle?" was the problem taken up by R. D. Phin, of Moosomin, Sask. He said that this took up the matter of feeding as well as transportation. Too many butcher cattle went to market; too few of them were finished. Summer feeding was advocated. It would pay to fence the farm and grow succulent feed, such as rape on the summer fallow. Personally he had finished 200 cattle a year on rape with a little grain given toward the end of the feeding season.

The transportation system was criticized. Too much time was required to carry live stock to Winnipeg. After twenty-four or thirty hours the animals started using the fat of their backs. The stock weighed less and graded lower, making the price to the producer less on two counts. High prices for feed during transit and poor connection with boats also were detailed. He also pointed out that graded beef was increasing in favor in Great Britain and that Western Canada should pay attention to this branch of the live stock industry.

Question—Do you turn your animals on a field of rape?

Answer—Yes, I have turned over 1,000 head directly to rape and have not yet lost one from injurious effects of this crop.

Question—Do you sow broadcast?

Answer—No, I sow rape in drills thirty inches apart with a re-modelled shoe drill. I place ground or heated grain in the hopper with the rape so as to avoid sowing too thick.

CATTLE FEEDING IN KANSAS

In discussing what Kansas is doing for the production of cheap beef, Prof. R. J. Kinzer said that stables or sheds were not in evidence. Hundreds of cattle men never think of providing shelter. A cow could be kept for a year on from \$9 to \$12. He had known of large herds being kept on native grass with about four pounds of cotton seed hulls per day per cow. Many sow large areas of Kaffir corn and turn the stock into this in the fall and allow them to help themselves. In summer feeding, cattle can be fed at \$4.00 per head and frequently make gains of 300 pounds on that cost. Many also fed cottonseed cake costing 1½ cents a pound, but it scarcely pays to use it, except that buyers prefer the meat to that from straight grass fed animals. Winter feeding included corn ground cob and all and alfalfa hay. During the latter part of the feeding period cottonseed meal was given. With full-grown animals of strong bone it was possible to get gains of three pounds a day for 100 or 120 days. Alfalfa had proven to be a great blessing. Alfalfa mills are now grinding the hay into alfalfa meal. This sold at \$20 to \$22 a ton. Alfalfa hay now sold at \$10 to \$12 a ton. The yield varied from 3½ to 5½ tons per acre. The cost of production did not run more than \$2.50 per ton. Some farmers have their entire farms in alfalfa and are making fortunes.

Question—What does it cost per acre for seed?

Answer—We pay about \$11 per bushel and sow twelve to fifteen pounds per acre.

Question—Do you advise seeding with nurse crop?

Answer—No, never. In Kansas we get best stand by sowing in the fall about September 10th.

He thought they fed too much alfalfa. With horses in stable it had been found not advisable to keep unlimited quantities of this hay before them all the time for fear of kidney trouble. In the field there is not this danger.

Question—Do you use your alfalfa fields for pasture?

Answer—Yes, for hogs but not generally for cattle and sheep—as, frequently when wet weather sets in the loss is heavy. However, we have not found the stand injured by pasturing.

An experiment has shown that hogs would gain about 1,600 pounds per acre of alfalfa over the gains from corn feeding. The late cuttings made best hay for hogs and sheep.

HOME GROWN ALFALFA

In order to show Manitoba farmers that alfalfa can be produced in this province, Jas. Murray, superintendent of the Brandon Experimental Farm, presented a large bale of alfalfa hay cut out of a stack. The yield averaged 3½ to 5 tons per acre. With thorough preparation of the soil it was easily possible to grow it. A hardy strain was advised. Montana seed was good. Another strain known as Grimm's, also had proven satisfactory. Inoculation was spoken of as a precaution that might not always be necessary but was advisable. The experimental farm would send 100 pounds of soil from an alfalfa field to any farmer in the province.

Two crops could be harvested in a season. Cutting should be done as soon as bloom appeared. In the fall a stand of from six to ten inches should be left in order to protect the crop over winter.

Question—How much soil do you apply for inoculation?

Answer—One hundred pounds is enough for an acre.

Question—What time do you sow the seed?

Answer—Any time after seeding and before July 1st. Early in June is best.

Mr. Murray also referred to feeding experiments conducted with steers on the Experimental Farm. The work of three winters did not give sufficient data for definite conclusions as to whether it was best to feed in the stable or in the open.

MARKET DEMANDS

John Gosling talked on the relationship between choice cuts of the live animal and its carcass. It was claimed that packers generally told producers of live stock that they should produce large fat animals, but the fact was they could handle these only in limited numbers. A well finished animal dressing 1,000 or 1,100 pounds was acceptable, but with big fat animals there was a large proportion of briske and a loss by undue fat on the rump cut. With a good animal perhaps dressing 55 per cent. of the live weight only about 25 to 30 per cent. can be classed as high-priced cuts.

Packers used the large overdone steers as a standard, and bore down on prices offered for other stock by telling the producer that his animals were not finished. The fact stands that the demand is for moderately fat choice animals.

A grade Shorthorn steer was used to advantage in pointing out the high-priced cuts. It was noted that tender, lean meat was found on those parts of the

animal used least in locomotion. He would prefer chuck from good animals than porterhouse steak from inferior stuff. Choice cuts along the back and loin were marked off with chalk on the specimen under consideration, and many pertinent questions asked by the audience were answered by this dressed meat expert.

NOT ENOUGH DAIRYING

The dairy industry was supported by A. B. Potter, of Langbank, Sask. It was pointed out that scarcity of butter and prevailing high prices showed that it was a line of farming that warranted more attention. Practical pointers on calf raising were given. It was advised that the first calf should be dropped when the cow is about two and one-half years old, and the second not until she is four years. Milking should be continued up to within at least two months of the time the second calf is dropped. This was the proper time to develop the milking propensities of the cow.

Question—What percentage of your females are superior to their dams?

Answer—I cannot answer that. The only thing to do is to weigh and test the milk and find out what cows are worth keeping. Discard those that are poor milkers.

POINTERS ON HOG RAISING

The hog industry in Manitoba was discussed by Prof. W. H. Peters, of Manitoba Agricultural College. In Kansas he said they made profit from hogs by throwing corn to them with a scoop shovel. In Western Canada farmers could not feed corn, but there were other farm products that could be fed. Live stock dealers called for a well finished, smooth hog weighing about 200 pounds. An attempt should be made to meet these demands.

Pigs farrowed in the spring from previous year's sows gave cheapest hogs for market, but this was not the most satisfactory method of rearing hogs. Pigs farrowed in August were most profitable if well cared for. At six months they should go about 200 pounds.

Experiments were carried on at M. A. C. to determine the cost of producing marketable hogs from late summer litters.

Two pens of ten each showed gains in favor of concentrated rations. One lot gained from 42.8 pounds on October 1 to 132 on March 2, when fed on shorts and barley. The other lot was fed on pasture in the same time from 37.5 to 143 pounds. In lot number one it required six pounds of feed to make one pound of gain, and in lot number two only 5.6 pounds of feed. The net result was an evidence that it pays to balance feeding rations and supply protein. The tankage contained about 40% protein. It is obtained from abattoirs or packing houses.

However, it should not be forgotten that care was needed in addition to feed. The building must be dry and fairly warm, and the pigs should have exercise. Any floor was satisfactory, provided plenty of straw was used. Ventilation should not be neglected. An attempt should be made to keep the walls free from frost. For exercise it was advisable to have long runways.

Question—Which should feed be given, wet or dry?

Ans.—Experiments show there is very little advantage in wetting or cooking. We wet the feed slightly in summer and steam sufficiently to make it warm in winter.

SHEEP ARE PROFITABLE

The necessity and profit of keeping sheep on every farm was discussed by John Campbell. After detailing many of the advantages he referred to rape as a crop most satisfactory for fitting lambs for going into winter and being in condition to finish rapidly for market. If the soil was in good condition three pounds of seed per acre was sufficient. He liked to average a plant to the square foot. This gave a strong plant with plenty of substance. By sowing in drills and cultivating between the rows best returns were secured.

Instances were given of huge profits. In one case 124 lambs were purchased in November, for \$400, and sold in April for \$847. Taken off rape, strong and vigorous they were easily wintered and finished for the Easter market on unthreshed peas containing approximately one pound of grain per head per day, hay and cut turnips. Results of experiments conducted to show the feeding value of rape also were given, but it was recognized that it paid to have a field of grass as well as rape.

D. F. Wilson, of Forke River, also advocated rape for sheep and said he had found good results. He always turned his flock to rape in the afternoon when they were full.

Hon. W. R. Motherwell, Saskatchewan's minister of agriculture, expressed appreciation of the advice given by Mr. Campbell and advocated diversified farming.

T. R. Todd deplored the scarcity of sheep in the West. His experience of twenty-eight years indicated that this class of stock did well over the prairie provinces. He advised a larger bounty on wolves. In his case two dogs protected his flock, and he had not lost half a dozen since he first came to this country. Although wool brings low prices, the annual clip pays for food consumed. Figures were given to show that there was more money in sheep than in cattle.