

Devons.

Rudd, W. J. Eden Mills Stock, both sexes, all ages.

Shorthorns.

Bonnycastle, F. & Son....Campbellford..... 6 bull calves, 2 to 11 months; 10 heifer calves; 9 cows and heifers.
 Brodie, G. A. Bethesda 23 young bulls, 17 heifers.
 Caldwell Bros Orchard Bull, 13 months.
 Douglas, J. Caledonia 11 bulls, 5 to 12 months; young cows and heifers.
 Graham, H. C. Ailsa Craig 5 young bulls.
 Hawkshaw, W. S. & Son...Glanworth Bull, 3½ years; bull, 5 months; 4 heifers, 6 months.
 Hine, R. J. Dutton, Ont. 2 Shorthorn bulls, 8 months.
 Holdsworth, R. L. & Son...Port Hope Bull, 16 months; bull calves, 2 and 7 months.
 Howden, J. D. Whitby 2 bull calves, 11 months.
 Jeffs, E. & Sons Bond Head Yearling bull; 6 bull calves; young cows; heifers and heifer calves.
 Martindale, F. York 8 bulls; three yearling bulls; 4 bull calves; bull, 3 years.
 Milne, D. Ethel 10 bulls, 8 to 14 months; cows and heifers.
 Sibbald, F. C. Sutton West..... 45 head, including bulls, heifers and cows.
 Smith, A. W. Maple Lodge 12 young bulls; 10 cows and heifers.

Guernseys.

Caldwell Bros.....Orchard..... Bull, 5 months.

Polled Angus.

Varcoe, J. Carlow 7 bull calves; aged bull; females, all ages.

Herefords.

Smith, H. D. Compton, Que. Bull calves.
 Stone, A. Guelph 5 bulls, 15 to 22 months; cows, heifers and calves.

December Meetings.

It was expected that a list of the Institute meetings for December would appear in this issue, but it has been found impossible to get it ready in time. The list will appear in FARMING for Oct. 24.

Raising Sheep for Mutton.

Abridged for Canadian Readers.

(From Farmers' Bulletin, No. 96, issued by the United States Department of Agriculture.)

Sheep raising will return a satisfactory profit one year with another, independent of the price of wool, or nearly so, as it has been clearly demonstrated that it does not cost any more, if even as much, to produce a pound of mutton from good mutton sheep under average farm conditions than to produce a pound of beef, when the wool is left entirely out of consideration; and the wool always has some value; it seldom goes so low that well-bred mutton sheep will not yield a fleece worth from 75 cents to \$1.50.

Large numbers of sheep have been fattened annually in the grain-producing states the past few years, and many important truths and fundamental facts pertaining to this industry have been established. These all tend to place sheep raising on a more permanent basis. Practical feeders and farmers have found that there is no more profitable outlet for surplus grain products than in mutton production.

Many careful and scientific investigations have been conducted at the experiment stations, which also shed new light on the problem of sheep feeding.

The feeding records presented give the gains and cost of making a pound of mutton. The number of pounds of dry matter required for a pound of gain are also shown. The records of the first and second experiments are presented separately, and the average results of both experiments are included with the record of the second in order to furnish more complete data for comparison.

The investigation of this subject was taken up at the Iowa Experiment Station by Prof. C. F. Curtiss the director and agriculturist, when the depression in the sheep business had reached its lowest point. The primary object was to determine the relative economy of production and value of mutton and wool compared with other farm products, and incidentally to derive information concerning the demands of the market for these products and the adaptation of some of the leading breeds to meet the market requirements. The experiment planned for this purpose consisted in using ten carefully selected representatives each of ten of the leading breeds of sheep to be used in a feeding experiment covering a period of about one hundred days, taking the lambs at weaning time or soon afterwards, and finishing them for market in prime condition, carefully determining the cost of producing a pound of mutton from each breed and the average weight of fleece, and the value of both mutton and wool on the market. This was followed by a thorough and exhaustive slaughter and block test giving the weight and value of various parts of the carcasses, and a photograph of the leading cuts on the block. The investigation covered a period of two years in order to secure greater accuracy, and the results were found to be substantially uniform in the two trials.

The breeds included Southdown, Shropshire, Oxford, Suffolk, Lincoln, Leicester, Cotswold, Dorset, Merino, Merino and Shropshire cross, and Shropshire ewes. The first experiment covered a feeding period of ninety days and the second one hundred and six days.

In the second experiment, the Rambouillets were used instead of the National Delaine Merinos, in order to afford a comparison of another family of Merinos; and the Shropshire-Merino crossbreds were also omitted from the second experiment and a bunch of pure-bred Shropshire ewe lambs similar to the Shropshire wethers was

included for the purpose of comparing the feeding and mutton qualities of ewes and wethers of the same breed.

In computing the cost of grain the feeds used were estimated at the following prices, based on the commercial values prevailing in the local market during this investigation:

FEED.	First experiment.	Second experiment.
Bran.....per cwt.	\$0.40	\$0.35
Oats.....per cwt.	.40	.35
Shelled corn.....per cwt.	.28½	.20
Oil meal.....per cwt.	.90	.90
Hay.....per cwt.	.28	.20
Roots.....per cwt.	.05	.05
Cabbage.....per cwt.10

A full allowance of hay may be given with safety. Bran or other comparatively bulky feeds are well suited to starting sheep on feed, and for the same reason oats are safer than corn.

During the preliminary feeding period one pound of grain is a sufficient allowance for ten lambs daily; following this the grain ration may be increased to one-quarter of a pound per head, but it should not exceed one-half a pound for native-bred lambs at the end of thirty days. Range lambs will not eat more than one-third to one-half this amount with safety. Hay feeding alone without any grain is sometimes practised for the first thirty or sixty days in regions where alfalfa is abundant and of good quality, and quite satisfactory gains are thus obtained. It is a serious mistake to attempt to put lambs or sheep on the heavy grain rations suddenly, and one that not infrequently causes serious loss and permanent injury.

During the latter part of this experiment, the oats, shelled corn, and oil meal were increased and the lambs crowded to their full capacity. Some of the larger breeds consumed as much as 2¼ pounds of grain per head daily.

COST OF PRODUCING MUTTON.

The summary of the first experiment, with the lambs shows that. (See Table No. 1)—

One hundred and nine head consumed 34,501 pounds of feed (total dry matter) in ninety days and made a gain of 4,678 pounds.

Seven special mutton breeds consumed 23,792 pounds of feed and gained 3,281 pounds.

This gain is at the rate of one pound increase in live weight for each 7.37 pounds of feed (dry matter) by all breeds tested, and one pound for each 7.25 by seven special mutton breeds.

The record of the second experiment, as will be seen by reference to (Table No. 2) is hardly as uniform or as good as that of the first; the difference was attributed mainly to the interference caused by the stomach worms which seriously infested nearly all of the lambs at the beginning and to some extent throughout the experi-