THE FARMER'S ADVOCATE.

Lamb Feeding Experiment No. 2 Conducted at the Iowa Experiment Station.

450

In the FARMER'S ADVOCATE of May 15th, 1896, the In the FARMER'S ADVOCATE of May 15th, 1896, the details of an extensive experiment in lamb feed-ing were given by Prof. C. F. Ourtiss, of Iowa Experiment Station, who conducted the work. In order to still further determine the relative economy of producing mutton and wool, com-pared with other farm products, their value on the market, the requirements of the markets, and the age at which it is most profitable to feed and sell, rather than to point out breed distinctions, a second feeding test has been conducted with lambs of the following breeds and numbers: 10 Shrop-shire ewes, 10 Southdown wethers, and 9 wethers each of Shropshire, Oxford, Suffolk, Lincoln,

shire ewes, 10 Southdown wethers, and 9 wethers each of Shropshire. Oxford, Suffolk, Lincoln, Leicester, Cotswold, Dorset, and 8 Merinos. The lambs used were the best representative specimens of the various breeds procurable, and were purchased, with the exception of 5 Suffolks, 8 Merinos, and 4 Shropshire ewes, from leading Canadian flocks, "owing," says Prof. Curtiss, "to greater convenience in finding suitable representa-tives, due to larger and more numerous well-kept flocks, and a greater variety of breeds." Most of the lambs used were rams when purchased, and were afterwards operated on by the method used with the lambs in the first experiment (twisting and turning the testicle) soon after they arrived at and turning the testicle) soon after they arrived at the Station. This operation was quite satisfactory, so far as the feeding results were concerned, and has the advantage of being much safer with large lambs, but it did not make the lambs as smooth as they are after castration.

The lambs were taken from grass September Ist and separated according to breed and put into quarters for the feeding test. These quarters con-sisted of plain board shed room 12×14 feet and an open yard adjoining, about 12×30 for each breed. All of these apartments faced the south, and the conditions means a possible uniform as could be conditions were as nearly uniform as could be made. Hay was fed in racks inside the shed, and grain in troughs in the open yard. A liberal supply of bedding was kept in both shed and vard, au the doorways always kept open, except in case of one or two driving storms. The sheds were ar-ranged so as to prevent injurious drafts of air. A box of salt was constantly accessible in each pen. Hay was fed first morning and evening, and the grain followed. Water was given about 9 or 10 o'clock a. m. each day. All feed was carefully weighed in, and everything left uneaten was weighed back and deducted. But very little feed was left, however, as the amount was so regulated it was usually cleaned up promptly. Each breed was carefully fed up to its full capacity on a ration uniform in composition to all.

The preliminary feeding continued through the first fifteen days of September. Prof. Curtiss remarks in bulletin No. 35, just issued, describing the test, that "lambs need to be led up to full feed-ing very gradually and with a creat deal of caution. When once successfully started, the critical period when once successfully started, the oritical parts is past; but overfeeding and irregularity should be carefully guarded against at all times." The first and final weights and gain of the one

ollows :

Tota Gain.

425

312 333

3901

lunarea ana six aay	test period	were as It
i en la contracta de la contra	Weight Sept. 16.	Weight Jan. 1.
0 Southdown lambs	. 646	1024
9 Shropshire lambs	. 789	1133
9 Oxford lambs	. 8.3	1240
9 Suffolk lambs	825	1210
9 Lincoln lambs	. 818	1292
9 Leicester lambs	. 172	1197
9 Cotawold lambs	. 767	1246
9 Dorset lambs	. 741	1155
8 Merino lambs	. 595	907
0 Shropshire ewes	. 667	1000
	7508	11404

THE BREEDS COMPARED IN FEEDING.

The average gains made by the lambs are either as large nor as economically produced in the second as in the first experiment, though the difference is not great. This distinction is doubtless due to several causes, among which are the prevalence of intestinal worms, the unfavorable weather,

and a poorer quality of grain. The relative rank of the breeds in the comparison and cost of gains is much the same in both tests. The Cotswolds again lead, with Lincolns and Leicesters closely following. The general average of the Southdowns and Shropshires is the same and their rank is next to the long-wooled breeds for economy of production, and in this they are followed closely by the Dorsets and then in turn by the Oxfords and Suffolks. The Merinos have quite materially improved their feeding record in the second experiment, due no doubt to the Rambioullets used being larger and more growthy than the Me-rinos used in the first experiment.

RATE AND COST OF GAIN.

The whole number of lambs, 109, in the first experiment, and 91 in the second, not including the ewes, made a total gain of 8,246 pounds from 69,134 pounds (dry matter) of feed — a rate of one pound pounds (ary matter) of reed — a rate of one pound of gain for 8.38 pounds of dry matter in the feed consumed, and an average of .448 pounds per head daily for the entire lot. The total gain of 8,246 pounds was made at a cost of \$245.69 for feed con-sumed, or an average cost of 2.97 cents per pound of mutton produced in both experiments. This calculation makes no allowance for value of fleece This except as it entered into the gain, nor does it take into account the value of manure or expense of labor in feeding.

THE MARKET COMPARISON.

The second shipment of lambs was loaded at the Station yards about noon January 4, and arrived at the Chicago stock yards about 5 a. m. the following day. They were sold and weighed up in the fore-noon at the following weights and prices :

a for a tradition of the	Weight.	Price.
10 Southdown lambs	. 950	\$5 75
S Shropshire lambs	. 1040	5 00
9 Oxford lambs	. 1140	5 40
9 Suffolk lambs	. 1110	5 00
9 Lincoln lambs	. 1200	5 25
9 Leicester lambs	. 1120	5 25
9 Cotswold Jambs	. 1140	5 25
9 Dorset lambs	. 1070	5 50
8 Merino lambs	. 830	5 00
10 Shronshire ewes	. 900	5 65

The lambs were killed on the following day, and dressed out the respective percentages of mutton given below :

	Per cent.
10 Southdowns	55.26
9 Shropshires	52.88
9 Oxfords	50.08
9 Suffolks	52.52
9 Lincolns	51.08
9 Leicesters	51.87
9 Cotswolds	51.31
9 Dorsets	54.11
8 Rampioullets	49.27
10 Shropshire ewes	54.55
Total 91	52.29 average

Reasons for Lighter Hogs.

"It is not an easy matter to cater to the public," remarked a farmer, who had raised and fed a fine lot of hogs for market, when he was informed that though his hogs presented a good appearance they were too fat and too heavy for the packers. 378 344 387 385 444 If he had consulted the packers before he had fed so much grain and other foods, or asked the consumers in the town what kind of pork they favored, or even consulted his own household, he would have been informed that they had lost their appetite for fat pork. The large packing houses are continually warning farmers against raising heavy hogs. They give as reasons that the English market calls for long, lean bacon, and such is the case. But if the English market were not consulted at all, we have sufficient reason for going out of the business of raising heavy hogs. Whether hogs are bought alive or dressed by the packing houses, the price per pound is reckoned on both pork and lard. Now we have a substitute for lard placed on the market, composed of mutton, beef tallow and cottonseed oil, which can be sold cheaper than the genuine article. It is not con-sidered as good as the lard, but it appears to "fill the bill," and it is not to be wondered at that packers are calling for less fat pork. In coming to the producer's part of the question, we have many times endeavored to prove that a pound of pork can be produced cheaper on hogs under 200 pounds in weight than after they have suitable for the dairy farmer, as he can utilize the waste products from the dairy to better advantage. Experiments have proved that hogs can be raised as cheaply on skim milk, shorts and peas as on corn when it is fed alone. The corn, being rich in car-bohydrates, produces fat pork, while the milk ration is rich in protein, and produces more lean meat. At the same time it is preferable for young hogs in building a large frame, and makes stronger bone and muscle. Corn-fed hogs have a weak constitution and are more subject to disease. The position in which the farmers of this country are placed for producing light, lean pork, and the tastes of the consumer happily running in the same direction, which circumstances are quite in keeping with the many other advantages which, taken together, serve to make our business as farmers more prosperous.

OCTOBER 15, 1897

00

ful

foll

and

was

F.

Shi Fer

R. In

win all,

the

Ber

Pol Son

typ

ove

Alt

trib

seet

exte

judi N.

bird

of c

five

the

war

ove

wer

SCOL

hibi

age

but

whi poi

fron

Art Wa Aur

No

(R

qua oper ings able

cons

ing, hall fact com

hors

and side

affor

the

and

oper

Lor

pani

occu

dres

deer of N

plac

stoc

the

abou

turn

day Prei

with

and

latte

enou

arra

grea

DOSS fairl

Here

Exp

Mod

good

mar

muc

espe

show

not

of a

was

ing

buil

chu

Far

plan

orch

Pro

exhi

each

er,

Attend to the Calves.

Fortunate is the man who taught his calves that Fortunate is the man who taught his calves that were dropped last spring to eat meal when they were young. If he supplies them with proper food now that the milk ration has been discontinued, he now that the initiality to keep them in a thrifty will have no difficulty to keep them in a thrifty condition. Otherwise they will go into winter quarters in a condition that it would have been quarters in a condition that it would have been better for their owner, in many cases, had he raised them when quite young with a small quantity of gun powder. There is no sadder spectacle than a meek-eyed calf carrying a barrel large enough for two. It will require at least two or three months two. It will require at least two of three months pampering to get such calves in growing condition; while very often they are stunted for the remainder of their natural days. The changing from milk to dry food is a critical period. As the pastures have dry food is a critical period. As the pastifies have become very dry this season, other green succulent food must be provided. A field that was seeded with clover last spring is a suitable place for the calves to run in the autumn, but it is unwise to calves to run in the automit, but it is unwise to allow them to eat frosted clover. The stable is the most inviting place for them to lie at night after this date. If they are given a dry bed and a good ration of the most appetizing foods available, they will acknowledge the attentions in a way that will be satisfactory to the owner.

The Foal Merits Attention.

It seems to be in England as on this side the water, the foals are frequently neglected and al-lowed to lose their milk flesh at this season of the year. One C. A. has the following to say in the English Live Stock Journal:

English Live Stock Journal: "In their natural and proper desire for economy many stockowners postpone the (so-considered) evil day when autumnal assistance in grain foods must be commenced; hence the animals get thin as the winter coat grows, until, for very shame, the oats, the corn, the bran, and the roots are at last allowed. During the delay, what has happened to mare and foal? The glossy coat of the mare, which indicated that she was again in foal, has turned dull and rough, and both she and the once playful foal have lost their lively energies, and move about in dull and stately depression. The supply of winter food, which at one time was more or less optional, has now become compulsory, if the owner is to be in possession of a healthy mare and yearling next May Day; and the food must be not only regular but very liberal.

become compulsory, if the owner is to be in possession of a healthy mare and yearling next May Day; and the food must be not only regular but very liberal. "Now contrast this late and compulsory winter feeding with the early and optional autumnal beginning, and the ad-vantages of the latter will be apparent to all. "The early oorning of the foal puts and keeps his digestive organs in such an efficient state that it will make a horse of him at eighteen months old, and during succeeding winters he will do well if fed mainly on the refuse of the farm; and at the markstable age of four he will be far better and more valuable than if raised by the niggard method, whilet the cost of the early-feeding plan will have been far less. I have tried and seen carried out many times both these methods of management, and I am confident in my statements." If the mare gets poor during the winter she may suffer abortion, which is a serious loss to the owner, but, if matters are not so bad as that, she will still be shorter of milk for the next foal, and expenses will accrue in consequence. "No animal on the farm is neglected like the ordinary brood mare, and if a farmer can bring his mind to a sense of liberality only to the working horses he would do better not to breed horses at all. Ordinary horses pay slowly enough even when well fed, and when half-starved they must be a source of serious loss."

St. John, N. B., Exhibition.

The most exciting event of the first day, and perhaps during the whole period of the exhibition, was the opening ceremonies by Hon. Sir Wilfred Laurier, when an immense crowd rallied around the grand stand to welcome the Premier.

The first herd of cattle visited by your correspondent was owned by D. M. McKenzie, of Nerepis Station, New Brunswick. It constituted an exhibit of twelve head of Holsteins. At the head of the herd stands a bull of excep tional merit. One of his progeny, a year-old heifer, attracted special attention. The juage, Dr. Twitchell, said she was the most wonderful animal of her age he had ever seen. Mr. McKenzie captured eleven Holstein prizes. N. M. Black, Amherst, N. S., had present a very fine herd of Herefords. Sonnett, the leader of this herd, tips the scale at 1,970 pounds, and is a splendid type of the breed. Mr. Black carried away ten prizes with this herd. Messrs. Guy Carr, Compton, Quebec; D. M. Wilson, Moe's River, Quebec; J. E. Page & Son, Amherst, also showed some very fine cattle in this class, securing a good share of the prizes. In Polled Angus there were two excellent herds exhibited by Messrs. D. M. Wilson, Moe's River, Quebec, and R. H. Pope, Cookshire, Quebec. In taking note of the prize list we find the awards pretty evenly divided between these two herds. D. Ferguson and John A. Ferguson, of Charlottetown, P. E. I., were on hand with their beautiful herds of Galloways. These shaggy-coated bovines show care and intelligence in their breeders. R. Robinson, of Compton Outlook had an arbitration of the statement of Compton, Quebec, had on exhibition several head of typical Devons. In this class he had no competition. In the Jersey class there was strong competition, including our best breeders from Quebec and the Maritime Provinces. B. Elderkin, Amherst, Nova Scotia, took the lead in this class, closely followed by E. P. Ball. Rock Island, Quebec; S. Creighten, Silver Falls; R. H. Pope, Cookshire, Quebec; Mrs. E. A. Colpitts, Robt. J. Melvin, St. John; D. B. War-ner, Wm. Mullin, St. John; J. R. Hayes, Hampton, N. B.; and W. M. Thurott, Mangerville, N. B. In the Guernsey class Isaleigh Grange, Danville, Quebec, captured twelve prizes. The other competitors were F. S. Wetherall and R. H. Pope, Cookshire, Quebec. In the Ayrshire class the judge was heard to say it was the best collection of this breed he had seen outside of Chicago World's Fair. The prizes were pretty evenly distributed between the exhibitors Prizes were pretty evenly distributed between the exhibition —Messrs, R. Robertson, Compton, Quebec; Isa'eigh Grange; S. Creighton, Silver Falls, St. John, N. B.; F. S. Black; W. Donovan, Coldbrook, N. B.; S. G. Frost & Son, Hampton, N. B.; C. A. Archibald, Truro, N. S.; Mr. Robertson taking 1st on the herd; C. A. Archibald 2nd on the herd; Isaleigh Grange 3rd on the herd.

The grains used were evenly mixed and fed in that condition each day. During the first fifteen days the ration mixture consisted of 50 pounds of bran, 100 of oats, and 100 of shelled corn ; then the ration was changed to 25 pounds of oil meal, 50 of bran, 200 of oats, and 200 of shelled corn, and this was continued to the 20th of October, when 10 pounds more oil meal was added to the mixture and continued to the close of the experiment. Each lot was fed to its full capacity of this grain ration together with roots and hay. At the beginning of the test period the lambs were eating from one pound to one and a half pounds per head daily. At the close, Jan. 1st, the daily grain ration ranged from one and a half to two and one-fourth pounds per head daily.

THE EWES AND WETHERS COMPARED.

The ewe lambs were light eaters. Their gains were also comparatively light, but the cost of pro-duction was not much greater than the average by the wethers in this second experiment. On the market the ewes sold five cents higher than the wethers of the same breed, and in the slaughter test they dressed 1.67 per cent. more net carcass. On the block they showed slightly more fat, but their fine bone and plump, noat carcasses made them attractive and profitable. The price put on them by the buyers clearly indicates that there is no discrimination against ewel imbs, as there formerly was against the heifer. It should be mentioned incidentally, however, that after the ewes are a year old they are not as desirable as wethers, owing to the fact that the joints do not break as readily. Free, clean breaking of the front pastern is the test applied by meat dealers to distinguish between a lamb and a sheep. One that breaks is a lamb; one that does not is a sheep, rogardless of actual age.