

trated at about three weeks old, care being taken to avoid cold, dry weather for this operation. At this time we also mark all lambs with our special ear-mark. They are all—ewes and lambs—dipped about the beginning of July, and again just after weaning, if found necessary, for the prevention of maggot. Weaning-time with us is about the first of August, and, after the lambs settle, they are folded on clover aftermath. A month later they are taught to eat a little grain from troughs, this being increased up to about one-third of a pound per day as the clover fails. By first of October, a few—perhaps 40—of the best lambs are ready for the fat market, and should realize from 34 to 36 shillings each. A few cabbages or yellow turnips should now be ready, and these are given on the grass, the quantity being increased as they are better cleaned up. About first of November the lambs are folded on turnip land from which the crop has been lifted and stored in rows of three to five-ton pits. These turnips are now put through a root-cutting machine, cut into finger pieces, and fed to the sheep in troughs, feeding four or five times a day, and only leaving as many in the troughs at night as they will have cleaned up by next morning. Another set of troughs are kept in a row for grain-feeding. We usually make up a mixture of grains: equal parts of oats, maize, distiller's dried grains, mixed with treacle and soya or cotton cake, and with a little salt, equal parts, giving two-thirds of a pound twice per day. One-half of the lambs should be prime fat by the 1st December, and the remainder about Christmas, when they are all disposed of at one or more of the big centers. They ought, by this time, to be worth 42 to 44 shillings each, or, an average year, about 15½ or 16 cents per pound of carcass weight.

About a month after weaning the ewes are brought in, and 40 or 50 of the best are drawn out to be kept for another year, to put along with the 90 or 100 we again buy. The "cast" ewes are treated much the same as lambs, but are, of course, kept separate from these latter, as they would overeat them. Ewes should be ready to go by November, and are usually by that time worth 36 shillings (\$9) each. It will be seen from the above that the lambs are never allowed to lose their lamb flesh. That is, in my opinion, the great secret in sheep-rearing for profit.

#### BALANCE SHEET.

Expenditure (Annual).	
95 ewes, at \$6.50 .....	\$ 617.50
(Say) 1½ rams, at \$45 .....	67.50
Grazing 140 ewes, 52 weeks, at 8c.....	582.40
Grazing 2 rams, 52 weeks, at 8c.....	12.48
Oats consumed by rams and ewes, 8,- 440 pounds .....	100.50
Turnips consumed by rams and ewes, 106 tons, at \$1.80 .....	190.80
Mixed grains consumed by lambs, 4.25 tons, at \$28 .....	119.00
Aftermath consumed by lambs and ewes (feeders) .....	172.50
Turnips consumed by lambs and ewes (feeders) .....	210.00
Sheep dip .....	8.75
Depreciation of netting, cutter and troughs .....	21.00
Labor .....	87.00
Interest on capital, and allowance for overseeing .....	66.00
	\$2,255.43
Receipts (Annual).	
40 lambs, sold at \$9.00 each .....	\$ 360.00
160 lambs, sold at \$10.50 each .....	1,680.00
5 lambs, sold at \$8.50 each .....	42.50
90 lambs, sold at \$8.00 each .....	720.00
Wool, 735 lbs, at 20 cents per lb.....	147.00
Manurial residue of grain consumed (25 per cent. of cost) .....	54.85
	\$3,004.35
Expenditure .....	\$2,255.43
Net profit .....	\$ 748.92

The foregoing is reckoned on the results of a good turnip year. Turnips are valued at \$1.80 per ton of 2,240 pounds, whereas in some years \$2.50 would have to be allowed, which would make a considerable difference in the net profit. A death-rate of five ewes and five lambs (the latter after weaning time) is allowed for; seldom is it greater than this, and usually less.

"SCOTTIE."

A mistake too commonly made by farmers is that of letting the cattle and other stock out upon the pasture fields before the grass gets a fair start, thus crippling its growth, more or less, for the whole summer, while the early grass is washy and lacking in nutrition, and the animals lose, instead of gaining, weight or condition. Besides, when they have had a taste of young grass, they refuse, if taken into the stables for the night, dry feed which otherwise they would have consumed with a relish.

### Raising and Marketing Winter Lambs.

Baby-lamb mutton between Christmas and Easter is in the same class of luxuries with strawberries and fresh tomatoes at the same season, and commands the price of luxuries in all the large cities.

The editors of "The Farmer's Advocate" have asked me to give its readers an article from my experience. It is about fifteen years since my attention was first called to this phase of sheep-farming by some articles in a New York paper. The prices reported seemed to me so fabulous that I thought the demand only a fad which would soon pass, else so many would go into the business that prices would come down. The articles also mentioned Merino ewes of the Delaine type as employed in their production. I was then breeding that class of sheep, but had never known them to yearn in the fall. However, I decided to try a few, and the first year succeeded in getting ten lambs born in November. They were pure Merinos, so did not grow very rapidly; and, as I did not know how to dress them for the New York market, I sold them to a local shipper to go to Cleveland, Ohio, at Easter, at only one cent above price for year-old lambs.

But I had demonstrated the possibility of growing winter lambs, and decided to develop the business and qualify myself for dressing and preparing them for market. I secured a small flock of Dorsets, including a ram. I had prepared some Merino ewes for breeding in June, by permitting them to run over a year without breeding, and secured very satisfactory results in mating. I will say here, however, that a flock never breeds as uniformly in the spring as in the fall. But that is an advantage, rather than otherwise, as we want to ship only a few each week throughout the winter, beginning December 20th.

The lambs at this time should weigh not less than 42 pounds, alive, and not much more, and should not be over 10 weeks old—better eight. Later in the season the live weight should increase to 50 pounds, and an age of twelve weeks is permissible, but a lamb older than that always sells at a discount.

But, to take up the thread of my story, I prepared to feed the ewes by growing some roots (the winter before I had fed cooked potatoes and bran, as roots are not generally grown in Ohio), and, as soon as I was assured of some lambs, I got into communication with a New York commission firm that handled the so-called hot-house lambs, and got instructions as to dressing and shipping.

My early attempts at dressing were not very satisfactory to myself, and less so to the commission firm, as I learned by the returns and the tone of their letters. But I was determined to learn, and I have, as I have many times gotten the top quotations.

Now as to what I have learned from the experiences of intervening years. Only Dorsets, Merinos and Tunis can be relied upon to produce lambs at the proper time of the year. Any of the Down breeds will produce them in time for Easter, but only a limited number can be used that week, and the market always drops abruptly thereafter. The only secret within man's control connected with securing the mating of the other breeds at the proper time is to feed so as to have them gaining. Another factor in the situation is the temperature. I have noticed that whenever we have a cool June they breed more freely. If I could transport the flock to a mountain at that time, without excessive expense, I should do so. Yes, there is one other little trick in the trade. Two rams turned together with the flock serve as a stimulus to each other. As this is dangerous when both are horned, I have practiced putting one horned and one polled together, using two to each hundred ewes, and alternating with two others each ten days.

The short-wooled rams are preferable, as the less wool on the lamb at slaughter time, the younger it looks, and that is advantageous.

The flesh of a first-class lamb must be light-colored. To secure this, the lambs must be kept from exercise; this means they must be confined to stables, and closely confined. No springboards are provided for their amusement. On the contrary, the flock is crowded, so there is no chance for them to play, and that they will be forced into their own apartment, where feed in variety tempts them to eat several times a day as soon as they are old enough. They begin eating the third week. It may strike a Canadian with consternation to learn that corn is the principal grain fed, even from the start, only enough oats, wheat, bran and oil cake being given to afford variety, which is necessary to induce them to eat sufficient. Another stimulus resorted to is that of giving fresh feed several times a day. I have gotten better results in this way than by using the self-feeder, which keeps feed before them all the time. Cabbage is greatly relished by them, and a valuable adjunct. Alfalfa is the hay par excellence. When that is not available, good clover is indispensable. Possibly, with roots, bran and oats, lambs would do well

without hay, but I cannot say from experience. So much for the lamb's feeding.

The ewes should be fat when the lambs are born. For the first week there should be no change in feeding. As soon as the lamb is eating all the milk, gradually increase the feed. The feeding of the ewe from this on should be exactly the same as feeding of a cow for a record in milk production; and I use the same feeds, silage, cottonseed meal and clover hay, supplemented by soy beans. The Canadian feeds that would correspond are turnips, oats and bran and clover hay, with unthreshed peas. A supply of salt and fresh water completes the provision for the ewes.

I hardly need say the stables should be well ventilated and have an abundance of sunlight. After the lambs are two weeks old, they do not need to be warm, but dry, and closed against storms.

The night before we are going to butcher, we pick out the lambs and confine them near the ewe flock. In the morning, their mothers will be answering their calls, and a trained shepherd can locate them. We separate, and confine them convenient to the main flock, putting them at once upon lighter rations, and catching them twice a day to relieve their udders. Usually there are lambs that will do this if the ewes are held for them. Within about two weeks they will be dried off sufficiently to remove to some other stable, that their place may be taken by a fresh lot.

We usually butcher in the forenoon, letting them hang to cool until next morning, when they are shipped by express. I will not give details of dressing, as each market has its own method, but will say we suspend by cord about the hind pasterns, at a suitable height, and bleed by severing the artery in the neck. The lamb is held so it cannot struggle, and, as soon as fairly well bled out, the spinal cord is severed by a thrust of the knife between the vertebrae in the neck. The pelt is not removed, nor the head or legs, in the early part of the season. The dressing, shipping and commission cost about one dollar per head. We still ship to a commission firm. All of the large cities use them. H. P. MILLER.

Ohio.

### Sheep Beats the Cow.

Editor "The Farmer's Advocate":

I am a breeder of registered Cotswold sheep. I winter a flock of between twenty and thirty, usually on pea and oat straw and clover hay, generally giving what hay they will eat up quite clean once a day. During the first three months of pregnancy I feed an ordinary-sized turnip to each ewe once a day, whole. If the six-months-old lambs will not "hook" them, as the Scotchman says, I pulp them a few times, then slice, then cut in chunks with spade. I also keep two or three loads of unthreshed peas, and give a couple of small forkfuls once a day. Two months before parturition I discontinue feeding the breeding ewes turnips, as they produce big, washy, weak lambs if fed up to lambing time. I lost dozens of lambs from this cause, and paid dearly for this information. After quitting the turnips, I substitute, usually, about a half a pint of oats once a day to each ewe. The ewe lambs are not bred the first season, and get roots all winter. My sheep lamb in March. About the middle of February I add about a pint of bran to each ewe's ration, with the oats, to make them bag up, and to act as a laxative. Since I have adopted this method and cut out the roots, mortality has decreased to the minimum. Have scarcely any losses from weak lambs. We provide a nipple and bottle in case twins and triplets do not have enough milk, and, as ewe's milk contains twice the butter-fat of the average cow, we usually add a little fresh, separated cream to the strictly fresh milk for the lamb. If the young lamb's bowels do not act in a few hours after birth, we syringe in some fresh cow's milk in the rectum, which usually produces the desired effect, and does not irritate like soap and water. The system also absorbs what is not ejected, which nourishes and stimulates the little one. After lambing, we feed the ewes a balanced ration similar to what our cows receive, excepting the corn silage, viz.: Clover hay and pulped or sliced turnips, with a mixture of two pounds cracked oats, two of bran, preferably one pound pea meal. If peas are too high or scarce, we substitute one pound corn meal, to keep up flesh; sometimes we add half pound oil cake. We find the ewes milk well on a quart of this mixture twice a day, or two quarts pulped turnips, with salt, with a little sulphur mixed in, and applied to feed once a day. When the lambs are about three weeks old, a partition is made in the pen, so the lambs can feed at their pleasure on the above ration. They all have plenty of fresh water, and are permitted to run out, except at nights and in cold and stormy weather. We do not let them get wet in the late fall and cold weather, as their wool is so long it takes them some time to dry, and they are liable to catch cold and get the shuffles, for which we use tar, if this ever does occur.

During May and June they run on the highway and rough pastures. The first of July the