

where many other crops fail. Any loamy soil will produce rape

Much interest has been shown during the last few years in the cultivation of rape for winter pasture. This interest has been so widespread that several experiment stations planted rape on an extensive scale. Unfortunately most of the stations procured seed through the same firm, and it proved not to be true pasture rape, but a species of bird-seed rape. The variety grown for pasture is the Dwarf Essex (1) This variety seldom if ever seeds the first year being a biennial or, more properly, a winter annual. It grows luxuriantly, with a spreading habit (Fig 1), producing an abundance of leaves and tender stalks, greatly relished by animals. The seed rape, on the other hand, grows less spreading and, about sixty days from planting, flower stalks are thrown up producing a yellow flower resembling mustard. In the early growth of the two plants they can be distinguished by this spreading habit of the Dwarf Essex and its apparent slower growth.

The Dwarf Essex pasture rape is largely cultivated in England and Scotland (2) for forage purposes, and has been cultivated in America with considerable success. In this country the Minnesota, Michigan and Canada experiment stations have grown the Dwarf Essex rape (3) The results at the Minnesota station were very promising and its use was recommended as desirable in a diversified system of farming. At the Michigan station, during the season

have yet to learn, however, whether or not the enormous number of seeds produced will grow into troublesome weeds next year. In Canada, rape growing for pasture, has been practiced on a large scale, and the results are uniformly very encouraging. It is claimed that one acre of rape will feed from twelve to eighteen head of lambs for two months. An average gain of ten pounds per month is not uncommon, and this is accomplished without additional food.

Pasture rape grows very rapidly and produces a large amount of feed in a short time. Hence it is often sown as a catch crop. It does best if planted from July 1st to the 15th. (1) It can be sown after a crop of hay has been removed or can be sown as late as August after harvesting wheat. Whatever soil is chosen it should be thoroughly plowed and harrowed to properly fine the soil. Rolling should not be neglected, as it will assist in retaining the moisture and firming the soil. Rape is very useful as a weed cleaning crop, and if land is very weedy it will often be found desirable to plow it in spring, and harrow thoroughly until time for sowing in July. This will give all weed seeds an opportunity to germinate and be destroyed before planting the rape, thus materially lessening the after cultivation.

Rape is sown in rows thirty inches apart. (2) One pound of seed is sufficient for an acre, an ordinary garden drill for a small acreage, or a one horse

of bloating. Sometimes, when frozen, rape produces digestive disorders which are serious, so the feeding should be so planned that the rape will be consumed before severe weather comes on. (1) The cultivation of pasture rape will doubtless be a profitable undertaking for those practicing a rotation of crops. Its great value as a weed cleaning crop, the possibility of using it as a catch crop, the remarkable results obtained from feeding it, and the fact that it comes at a time when pastures are not at their best, will commend it to all who are desirous of adding one more profitable crop to American agriculture. —American Agriculturist

At the Smithfield Club show, last December the Hampshire Downs appeared in full force. There were eight pens of shearing wethers, seven of ewes, and thirteen of lambs. The chief prize-winners were Lord Howe, Sir Ed. Hulse, Messrs Newton, Whalley-Tooker, Judd, Sir T. Maple, M. P., Messrs Burton, G and T. Coles, J. H. Large, Glodsmith, Lyne and Barondale. Should any of our readers wish to correspond with any of these breeders on the subject of their sheep, a letter, addressed to the care of "The Secretary of the Royal Agricultural Society, 12 Hanover Square, London, W." To be forwarded, will reach its destination.

A Hampshire-down lamb-ram dropped, as it probably would be, in the early part of February, by the month of October would be capable of serving 40 ewes, and, in three generations, the whole face of a flock of that number of ewes would be completely changed. Such a lamb could, at present low prices, be bought for about \$30 00 of any of the best ram-breeders.

Wool—The price of wool is decidedly improving. Down teg-wool—i. e. the first clip—is now worth 10½d., stocks being very low in England, spinners very full of orders, and declining to undertake new business except at enhanced rates.

Cows vs sheep—The following extract from the Country Gentleman, a sort of reply to a previous communication on the superior profits to be derived from dairying over those from sheep-farming, does not seem to us to hit the fault in the argument. No notice is taken in either of the profits derived from the dung sheep being deposited on the land where it is wanted without the expense of cartage, spreading, &c, neither do the writers consider that land, too poor for dairying, will support sheep remuneratively. We are not speaking of farms where sheep are allowed to run about loose all over the land, but of farms where the flock is kept, as it always should be, most part of the day within the hurdles.

Still, even with these omissions, we think Mr. Ickis makes out a pretty good case in favour of the sheep. But 350 ewes, if put to ram in full flush of health, ought to produce a good deal more than 300 lambs. At least 20 per cent ought to rear twins: this would give 120 lambs as the number for sale. And, again, one man and a boy could easily look after 350 ewes.

In 1888, our lambs were on rape and doing well up to the 6th of December. Ed

Relative Profits of Cows and Sheep

EDS. COUNTRY GENTLEMAN—In the last issue of your paper a correspondent propounds what to me is an interesting question. From his herd of fifty cows the sales of milk last year amounted to \$4,562.50. In the place of the cows he could keep 350 ewes, and sell 350 lambs at \$6. He thinks there is a much larger profit in the cows. This question interests me because of a natural fondness for such problems—because I manage a sheep farm, and because I am within an hour of a good milk market. If, then, there is so much more money in cows than in sheep, there are financial reasons for discussing the question.

Being at less to know how to solve this problem, I applied to a friend who is one of the best sheepmen of Eastern Ohio, but, like myself, with no experience in dairying. Taking his pencil and paper, he made the following estimate:

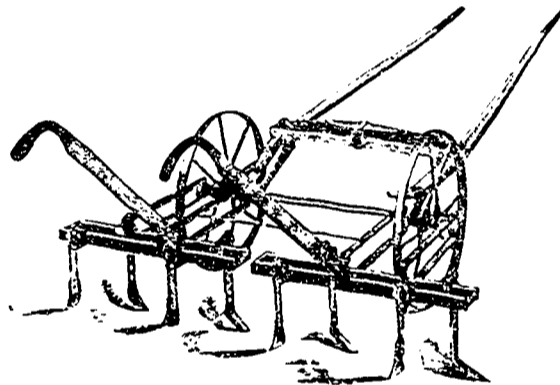
Dr		
Interest one year on \$1750,		
value 50 cows.....	\$105.00	
Pasture 50 cows 7 months at		
\$1.50 per month.....	525.00	
Bran fed on pasture.....	100.00	
½ bush. corn and oats daily per		
cow for 5 months.....	1575.00	
Hay, 100 tons, at \$12.....	1200.00	
Labor, three men.....	600.00	
Cr		
Milk sold.....	\$4562.50	
50 calves.....	250.00	
Profit.....		\$707.50

Now, on the supposition that your correspondent has on hand the 100 tons of hay and the 3750 bushels of grain required by the cows, and that in their place he buys 350 ewes, the account should stand something like this:

Dr		
Interest on \$975, value of 350		
ewes, for 8 months.....	\$ 39.00	
35 tons of hay, at \$12.....	420.00	
705 bush grain for 6 months...	296.11	
Labor.....	200.00	
Cr		
300 lambs, at \$4.....	\$1200.00	
5 lbs. wool per head, at		
25c	437.00	
Gain on ewes when sold	525.00	
65 tons hay sold	780.00	
3045 bush. grain sold..	1276.90	
Profit.....		\$3163.79

There would be \$1100 more profit if, as correspondent calculates, 350 lambs had been sold at \$6. Perhaps his estimate may not satisfy every one, and if it does not, I hope they will furnish some other solution.

Jefferson County, O. JOHN G. ICKIS



FOUR-BOW ROOT CULTIVATOR

of 1891, a plot containing one fifth of an acre, was planted to pasture rape, and early in September two Shropshire lambs were turned on the rape. The plot supplied them with an abundance of food for forty-two days and they gained during the period twenty two pounds each. They were fed in addition one-half pound of oats per day. (4) These results are very promising and indicate the great value of rape as a fattening food for cattle, sheep and goats.

During the season of 1892, fifteen acres were sown with what was supposed to be Dwarf Essex pasture rape. It proved to be the bird seed rape. The cultivation was carried on the same as for Dwarf Essex, and lambs were turned on it September 23d. These were supplied with all the salt they desired, and were weighed October 28th. They had gained, in these thirty-five days, fifteen pounds each, and had stripped all the leaves from the plants leaving simply the bare stalks with seed pods, which the lambs would eat only in the absence of other food. Thus, even bird-seed rape cannot be regarded as entirely worthless. We

turnip drill, sowing two rows at once, for more extensive fields, are employed for this purpose. As soon as the rough leaf appears, the cultivator should be run through between the rows. A machine weeder is very useful in cultivating before and after the rape has come up, killing young weeds without injuring the plants. The cultivation should continue until the plants cover the ground. It is rarely necessary to thin rape, and it grows so rapidly that weeds are seldom troublesome in the row, so that hand hoeing is not often necessary. The foliage smothers weeds. About the middle of September, sheep, or cattle, or even boys may be turned on rape. It seems to be most useful as a food for sheep, and is frequently used for this purpose. Some cautions are necessary when turning hungry animals on rape. There seems to be a tendency for animals to bloat if allowed to eat too much at first. It is always advisable to give animals a full feed before turning them on the crop, and do not turn on before the dew is off in the morning. If these precautions are taken, there need be no anxiety concerning the risk

(1) Or the Coiza or Colesseed, the quality of which we have always found a little better than the other. Ed

(2) Not much in Scotland. Ed.

(3) And so have we, but every one seems to have ignored our attempts. Ed

(4) A few peas would have been better. Ed

(1) Call it, in England, a bastard tallow. Ed

(2) It is always sown broadcast with us. If 6 to 8 lbs. an acre be sown, it will smother any weed. And its great attraction is that it requires no hoeing and ought therefore to be very popular here. Ed.

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