THE FARMER'S ADVOCATE.

supply of moisture, and therefore an abundant

crop. Not only does tillage conserve moisture, but it renders plant food available. It is estimated that an acre of average farm land contains as much plant food as could be bought for \$2,000. Now, the finer the soil, the greater the area will be afforded for root feeding. It is true that only a small portion of plant food in a soil is available for the support of the plants ; in fact, it has to pass through many changes before it can be appropriated. The soil is a factory or laboratory in which the work of preparation is carried on. The chief agents employed in this factory are film moisture, air and heat, and if any of these are lacking in the proper extent and condition, the preparation of food, and therefore plant growth, go on in only a sluggish way. Good tillage does much to hasten the activities of this process by allowing free ingress to the soil of film moisture, air and heat.

Cutting and Curing Clover.

Science and practice alike indicate that clover is one of the very best all-'round stock foods the farmer can grow, as well as being one of the best renovators of the fertility of the soil. They also agree that to secure the greatest amount of nutriment in the most palatable form, the clover crop should be cut early, while in full bloom, dried rapidly in the air by being tossed with the fork or hay tedder and exposed as little as possible to dew or rains after being partially dried, and not too long to a hot sun before being properly put up in moderate-sized cocks, not by rolling into heaps, but by placing even-sized forkfuls level and solid one on top of another so that the whole may settle evenly and the sides droop uniformly all around, thus fitting it to turn rain. Left to sweat and cure in the cocks for two or three days or more, if circumstances are favorable, and turned over an hour or two before being loaded, weather permitting, in order to dry off any dampness in the bottom, the best possible quality of hay may be secured-hay which stock will eat with a keen relish, and for which they will give profitable returns in weight of meat and milk or wool, and, properly prepared, may also constitute a part of the winter rations of hogs and poultry to good purpose.

STOCK.

Sheep Breeding and the Price of Mutton.

Mr. John Wrightson, in the London Live Stock Journal of recent date, writes : "The high price of mutton is certainly a point in favor of large farm-ing and ordinary arable cultivation on an extended scale. Eggs may be over-produced, but not mutton. After twenty years' keen competition with New Zealand and other countries, we see mutton (astonishing to relate) at over 10d. a pound, wholesale, and in the carcass, on the market. This is a curious result, for so long ago as 1879 we were told that mutton would be sent in in such vast quantities as to ruin sheep-farming in England. Several times during the intervening years have we felt the ous of foreign competition, but, strange to say at the present time we seem in as great danger of a mutton famine as in 1883, when mutton made about 1s. a pound. Sheep farmers appear to be in an enviable position just now. The situation is, of course, affected by the low price of grain, for sheepfarming and arable cultivation are in most cases united under one common interest. Arable-land sheep farmers have of late years had to contend, not only with low corn prices. but with shortness of keep. At the present time, the high price of sheep and the improved prospects of keep tend to encourage the hope that the present season may recoup them for past losses.

FOUNDED 1866

Profitable Pork Production -- A Year's Transactions.

To the Editor FARMER'S ADVOCATE :

SIR,-I always wean my pigs at about 8 weeks SIR, -1 always wear my pige at about 6 weeks old. Left longer than this, I find the sows will try to wean them, and this has a tendency to hurt pigs to wean them, and this has a conducty to nurr pigs, as they do not get as much feed as they require. They should be kept very clean and dry. The best feed I have found is shorts mixed with skim milk or water. It should not be made too thin. I have never had any trouble in this way with pigs. Some little change would be good, such as mangels or sugar beets for winter, and a little clover for sum mer, when suckling. The sow should be fed with bran and shorts very freely after first three weeks it being, perhaps, the best bone food that can be procured. I do not think that leaving pigs with the sow for ten weeks would be any drawback to the sow, only it would be that much longer for her to be idle, if two litters a year are wanted.

Why do not our Experimental Farms some tests on raising hogs from start to finish? In the past very little has been given us as to the cos of raising pigs, and at what age they are most profitable. Nothing has been said regarding sows either before or after farrowing. I have enclosed my statement for last year, which you can publish if you wish. It shows what kind of feed I used and how much, and what profit was realized. I am thinking of making the same trial of pigs on rape and pasture from now to winter, if I can get time

Stock on hand, January, 1889 Sold 18,905 lbs., average price \$4.21 Sows, etc.		395 795 57	89	
	\$1	,249	02	
Feed consumed :			1	
Shorts, 20 tons 1,472 lbs., average price \$16.38. Corn, 5 tons 1,957 lbs., average price \$13.90 Bran, 2 tons 436 lbs., average price \$14 Chop, mixed from mill, 4 tons 40 lbs., \$15.25. 15 bushels peas, 50 cents 800 bushels mangels. Stock on hand, January, 1900.		339 82 31 61 7 40 347	80 68 81 50 00	
Profit	\$	910 338		
	\$1.	249	02	

Fed whey from 90,000 lbs. milk, and received 65 loads of hog manure, which I think is more than even.

Last year was in some respects discouraging, feed being high and prices for hogs very low; still, I am of the opinion that the hog, under these cir cumstances, pays the best of any product of the farm. I should be pleased to hear from some of your readers their experience in feeding, with actual pounds of feed and of what quality, and results obtained. WM. J. WHALEY. Norfolk Co., Ont.

P. S.-The FARMER'S ADVOCATE is received, and its store of valuable information is read with much pleasure and profit.—W. J. W.

Raising of Young Pigs.

To the Editor FARMER'S ADVOCATE :

SIR,-Sows before farrowing should, if possible, have free access to pasture, and if not available grow nutritious clovers, such as alfalfa, cut and thrown in quantity to each pen. This is certainly a requisite, as too much concentrated feed is a detriment to brood sows. The week before farrow ing, feed warm slop of bran, shorts and oil cake, and note condition of bowels-that they are free-for all animals' rations should be as nearly balanced as is compatible with feeds on hand or to be purchased, of course, considering cost of same. Never overfeed. Both sows and young pigs must have exercise, and from personal experience and data gathered on this subject, it is necessary that they have a good run. Our sows are turned out of breeding pens when pigs are about three weeks old, and allowed the run of yard 1 of an acre, with good, comfortable sleeping houses. The average quantity of feed consumed by different sows and pigs varies considerably, and it is right here where intelligent feed ing counts. Generally we get best results by weaning pigs at eight weeks, when they, if properly fed with sow, practically wean off themselves. Where sow shows, say at 6 or 7 weeks, that her youngsters are too much of a drain, we find it a physical loss to sow to continue nursing, and a financial loss to us, as she will be so reduced in flesh and generally run down as to be unfit for breeding again for a considerable time. Castrate young pigs when four weeks old. Feed fresh skimmed milk, adding shorts, bran, a little corn meal, and occasionally oil-cake meal, and feed four times daily : also roots and alfalfa when in season, and this feed is successfully fed before and after weaning, and young pigs kept growing until about five months old, when they are rushed, reaching the block at from six to seven months. Mr. Tillson has at present 300 hogs, and out of nine litters in May only lost three pigs ; average litters, 9 to 11. I conclude by suggesting cleanlines strictly dry bedding, and access to ashes, salt, sulphur, charcoal, and water at all times, and it is unnecessary to say anything about comfort of our hog pen and the care given to hogs, as you have already published particulars of Mr. Tillson's excel-lent piggery. JOHN D. MACLEAY, Manager. lent piggery. JOHN D. MACLE. Annandale Farm, Oxford Co., Ont

THE FARMER'S ADVOCATE

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AND HOME MAGAZINE. THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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LONDON, CANADA

Farming Understandingly.

There is a vast difference between farming as your neighbors do and your neighbors farming as The man who studies the culture of crops for a number of years gets, one year with another, what is considered a good yield. His neighbor, however, a fairly good farmer, has given crop growing no particular study, but manages his crop as his neighbors do. It may be, his methods are those which his father followed when the country was new, and high cultivation and a systematic rotation was neither necessary nor practicable. His yield in very favorable seasons may be considered fair, but when adverse weather conditions prevail or there is a more than ordinary prevalence of insect pests for which he has not prepared, his chances for a crop that will pay expenses are rather slim. Both men dispose of their crops at the same market and at the same price per bushel of equal quality. In the one case, the cost of production per bushel has been greatly in excess of the cost per bushel to the farmer who has studied his business and farmed on correct principles. This is particularly true with such crops as corn, potatoes, etc., which can be given tillage during the summer season. With these crops, the difference in the cost of production may be largely due to a difference in tillage. The thoughtful farmer and the other fellow each realize that the crop requires water in order to grow. The one lives in hopes that it will rain, and the other provides a means of conserving not only as much as possible of the rain that falls, but also of the moisture which remained in the land in spring. Cornell Experiment Station has found that in a dry season a bushel of potatoes requires about three tons of water for its production. The intelli-gent farmer realizes that if he is to get 200 bushels of potatoes per acre, he must somehow manage to provide 600 tons of water for each acre. He has no facilities for irrigation, and his only resource is to make the soil a reservoir. Three hundred tons of water per acre sounds like an immense quantity, but it is estimated that an average farm soil when moist, but not wet, contains fully that quantity in the top eight inches. The moisture is in the form of a film surrounding each particle of soil, and the finer these particles are, the greater quantity of film moisture will the soil hold. It therefore appeals to the understanding farmer that the finer he makes his soil and this is accomplished largely by tillage the greater are his chances of maintaining a full

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SHEEP-BREEDING

has always been in itself a profitable pursuit, and long may it so continue. It is not so much that sheep farming on arable land has paid, as that the flock has saved the farmer from loss. The effect of present high prices will probably be greater attention to sheep, and an increase in flocks. We may see ewes dear, as well as rams, and the export trade as well as the home markets enlivened by competi-tion for good animals. Why, in the face of frozen mutton and New Zealand lamb, we have this dearth of fat sheep is not easy to explain ; but high wages and prosperity always increase the consumption of meat, and this may account for the want of a sufficient quantity of meat for months.

Whatever the cause, it is for us to supply the want. Increasing the breeding flocks will not immediately tend to lower prices, but rather the contrary.

Those who want sheep will have to pay highly for them, and those who have flocks will benefite until the wheel turns round and we find ourselves once more over supplied. What takes place quickly in the pig trade will act, although more slowly, in the case of sheep. High prices beget low ones, and rice versa. With sheep, however, the effect is slower, and we may therefore look forward with some confidence to a run of high prices.

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