tion and secure as enthusiastic adherents many who at present are at best lukewarm onlookers.

The scarcity of carriage horses in this country has naturally led breeders on the other side of the Atlantic to look around for animals which might supply the British desider-I believe it has now been pretty well proved that one of the finest carriage horses in the world is produced by crossing the American trotting mare with a well-selected English Hackney sire of the type of Langton Performer and Royal Danegelt. Both of these horses can be adversely criticised, but they have the essential properties of harness horses-are magnificent goers, and when judiciously mated cannot but leave carriage horses. It is not every Hackney stallion which will do for this purpose. I have a strong conviction that the ultra fashionable action possessed by horses like "Rosador" can never be utilized successfully in the production of carriage horses for everyday tear and wear. The type of horse wanted for good carriage work here is an animal bred as indicated, standing 16 hands, of a rich dark color -either bay, brown or che tnut-with few or no white markings, except perhaps a ittle on the fore-head; age not less than five and not more than seven, well mouthed, well broken, with perfect eyesight, and free from vice. His weight should be not less than 1,300 lbs. He must combine the conformation of the English Hackney of the "Rosador" type with the action of the Langton Performer type and the speed and grit of the American trotter. A horse of this type would command almost any price in Glasgow, Liverpool, or London. The last named market would take as many horses of the type indicated as could be produced, at prices varying anywhere between £120 and £700. Such horses, however, seldom cross the Atlantic. The merchant princes of the towns on the East rn seaboard, from the St. Lawrence to the Mississippi, are just as able to pay down the money for such animals as are the princes of commerce and the aristocracy of the od world, and in Glasgow carriage horses from your side generally on sale, while they may suggest what might be never afford much encouragement for the belief that the kind of horses indicated are plentiful in Canada. As far as we know, only one carriage horse yet imported has made the minimum price quoted above. It is possible one or two choice animals may have done so, but from £50 to £80 is more like the average going. The best sale of American and Canadian carriage horses ever held in Glasgow took place last Thursday, in Macdonald, Fraser & Co's yard. The highest price made was £147, for a splendid horse bred in Indiana. Strictly speaking, however, he was not a carriage horse, but an American trotting horse with a 2.20 record. The other prices did not exceed one-half of the above. Thirty two of the best made an average of £67 4s apiece, and thirty of the next grade made an average of £47 5s apiece. These were States horses. Canadian horses suited for van or, as you call it, express work, made from £29 to £45 apiece. These prices refer to horses reared on farms and not branded. Ranch horses, branded, do not sell for more than from £18 to £25. On account of the evil reputation acquired by a shipment of Argentine branded horses here some years ago, all horses so marked are avoided, and will not command good prices. The great drawbacks in foreign, and especially American or Canadian, carriage horses are bad mouths, defective eyesight and docked tails. One or other of these defects will greatly depreciate the value of any foreign horses. The tails should always be left long until sold in this country. A bad feature of the trade is that many of the best of your horses are bought here, faked up and made to do duty as Irish horses. This is a matter which concerns the interests of breeders in America, and their representatives here should give it attention.

"SCOTLAND YET."

Sheep Talk.

The growth of public taste in the matter of foods is always in the direction of greater delicacy. One of the most marked changes in reference to this matter is that in regard to the matter of meats. There is a decided preference for younger meats, as against older and more matured ones. The two-year-old beef has supplanted the four-year-old; the hundred and sixty pound lean hog, the four hundred pound fat hog; the eight months old, and sometimes the eight weeks old, lamb has supplanted the year-old and two-year-old sheep; and the poultry-raiser is contributing to both the foreign and demonstric most supplant a larger relative amount

and domestic meat supply a larger relative amount of his delicate goods than ever before.

It is plain, both from experience and theory, that the mutton breeds of sheep are the best for Canada. The Merinos are so few as to form no appreciable part of the sheep wealth of the country, the climate is too severe for them. It is likewise, perhaps, true that if they would be acclimated that their wool would deteriorate as to fineness. It is claimed that the vigor of our climate makes the wool of many of the breeds harsher, compared with its quality in England. All things considered, we cannot hope to be able to compete successfully in the markets for the most valuable classes of wool, and must make our mark in the mutton line. To this we seem well adapted, and the trade in mutton rams to the United States is one of the most striking evidences of the excellence of our breeds. It is likewise one of the most lucrative sides of the

sheep industry.

If there is any further specialization to come from our first discrimination in favor of the mutton breeds generally, it would naturally be in the direction of choosing special classes from the whole list of Cotswold, Leicester, Lincoln, Oxford, Shropshire, Southdown, Hampshire, Suffolk, and Dorset breeds, and the choice would be dictated either by considerations of quality or of early maturity, or perhaps of both combined. It is generally conceded that the down breeds surpass the long-wooled breeds for quality of mutton. There are even considerable differences among the

various down breeds with regard to quality. An Oxford breeder would not seek to usurp the place admittedly held by the Southdown for fine texture and delicate flavor of meat; a Southdown breeder, on the other hand, would not claim to be able to produce as large a sheep as could be produced by perhaps any of the other down breeders. So long as the long-wooled breeds flourish in Canada there is not likely to be much advance in discrimination among the down breeds, and the use of these larger breeds—for example, the Cotswold—for producing a good grade mutton lamb on the fine wool breeds of the United States will ensure a steady market for these breeds for years to come.

There can be no doubt, however, but that the down breeds are relatively a much more important part of the sheep wealth of the country than they were some years ago. The growth of the breeding and importation of the Shropshire, a typical down breed, may be cited as evidence of this, and there is nothing to indicate that the invasion of the downs will not continue to spread. In this connection it is interesting to note that there are some well fixed and important types of English mutton sheep that have as yet not taken an appreciation of the Canadian sheep public, and these are the Dorsets, Hampshire, and Suffolk. The breeders of each of these classes in Ontario could probably be counted on the fingers of one hand. In the case of the Hampshires and Suffolks, at least, the number of breeders is small, only one of the former and two of the latter being known to the writer. In the case of two of the three breeds mentioned, two at least seem to have qualities that will stand them in good stead in the light of the growth of the demand for young meat. The Hampshires are said to be of excellent quality as to mutton, and to be very rapid growers for six months, that they surpass any of the breeds for size at this age. The Dorsets, likewise, are the sheep that are principally used for the production of early lambs in England. They are very prolific also, which is an important matter in a mutton sheep. A ewe should be able to provide for the lambs she throws. Nature should not be more profligate in increase than she is in provision for them.

Very frequently, however, a ewe with triplets cannot make ample provision. In the case of lambs for forcing it is not so necessary that the ewe should be able to provide all the sustenance required for her lambs, as a large part of the food of such lambs is given directly rather than through the ewe. Prolificacy is important in another way. The amount of meat furnished by a lamb at six or eight weeks is only half of what would be furnished at six months. In other words, less quantity requires greater numbers to prevent the depletion of flocks. The intensive feeding required for this trade is only the late extension of the change that came over cattle feeding some years ago and is already too long delayed. Sheep income with the average Canadian farmer has been regarded as adventitious and casual. The usual explanation given for keeping a flock of sheep is not stated directly to be that they yield large profit for labor and food invested, but that they are no trouble and that what they eat is never missed. The laissez faire (let-us-alone) system has not been found to answer well in other branches of farming, and there is no place for it in the sheep industry.

An extension of the importation of Downs may be confidently looked for. There is plenty of room in Canada for more Dorsets, Hampshires and Suffolks than we now have, and it seems not improbable that a strong position is assured for some of these breeds, on account of the qualities of prolificacy and early maturity which are generally conceded to them. Once the tide has set in, fashion will strengthen it. Men who have any of these breeds, and are building up nice flocks, should have hope that their time will come.

FARM.

The Forest and the Farm.

"I am satisfied I can raise more wheat from eighty-five acres on a hundred-acre farm than from the whole hundred acres," was the remark made to the writer a few days ago by a recently-elected member of the Legislature. We were discussing the question of the effect of forest growth on our farms, and paradoxical as his remark may sound, he was nearer the truth than at first sight might appear to be the case. If the farm happened to be surrounded by other farms comparatively well wooded, and if every acre of the hundred was first-class soil, under intense cultivation it would probably pay better to buy fuel and timber from the neighbors than to plant part of the farm to trees. If, on the contrary, the surrounding farms were as bare of trees, as is the case in some neighborhoods in Ontario, thus failing to afford the protection to soil, water and climate that trees in masses afford, it would pay far better to put part of the farm in bush, no matter how rich the soil. Soil, heat and moisture are the elements that enter into the growth of farm crops. The soil can be aided by fertilizers; the temperature cannot be controlled, but the presence of forests has a great deal to do with the control of moisture, and conserved the street of the control of moisture, and conserved the street of the control of farm crops.

quently with the growing of farm crops.

The question of the influence of trees on the rainfall is still an unsettled one. I believe the worth each year.

forests do influence the distribution of the rainfall, but it is not an established fact. This much is certain, however—they have a great influence in regulating the evaporation from the soil and in causing a gradual melting of the snow, thus preventing the spring floods and summer droughts. Snow does not drift in the woods as it does in the open fields; it lies deeper, and as it melts more slowly it soaks into the ground, following the roots of the trees and goes into the vast reservoir underneath the surface of the soil. The trees, too, intercept the winds and thereby check the too rapid evaporation from the open fields and prolong the moisture in

On an ordinary hundred acre farm in Southern Ontario, I should consider the proper proportion of woodland to be about 25 acres. For this woodland, the crests and sides of hills and the poorer broken land should be used. There are not many farms on which there is not some land of this description. Under fair treatment this would yield 20 cords of fuel per year, with a reasonable amount of fence material and a few logs to be sawn into boards for building purposes. The fuel should be worth not less than \$2 a cord. This, with the value of the other timber, would make the net revenue of the bush fully \$50, or a yearly rental of \$2 an acre. This is for the wood product alone. If the bush is composed of sugar maple, hickory (shell bark), chestnut, butternut, white ash, elm, oak, pine and spruce, the direct cash returns will be much greater. Many farmers in Leeds County derive a considerable revenue from their sugar bush, and there is a growing market

for nuts of different kinds.

If a farmer has already a wood lot in poor condition—that is, with the trees scattered and grass growing among them—he should first fence out the live stock. It is not profitable as pasture, and it cannot long be both pasture and bush. The poorer sorts, crooked and dead trees should be taken out. If the grass has grown to form a sod, young trees will need to be planted, as the tree seeds will not germinate freely on the sod. For this purpose young trees may be dug up where found and transplanted in early spring before the leaves are out or the sap has ceased to flow. Don't plant poles; young seedlings a foot high, or smaller, are best for this purpose, and will outstrip the slender poles with a small tuft of branches at the top, usually selected for this purpose. For roadside planting, where cows are allowed to run at large, it is advisable to plant trees whose leaves are beyond their reach, but they grow slowly for several years. Fill in the blanks in the woods with these transplants if there is no young growth coming up, and

plants if there is no young growth coming up, and the grass will soon be killed out.

In case the wood lot is so situated on the farm that it does not afford protection from the north and west winds, and the neighbor's wood lot does not serve this purpose, it will pay to plant a windbreak or shelter belt. As this is not intended for timber purposes and it is essential to get it thick enough to check the wind as speedily as possible, there is possibly no better tree for the purpose than spruce. It grows rapidly, retains its branches close to the ground and soon makes a close hedge. It is well to plant two rows of trees, putting the trees say 24 feet apart, planting the next row say 12 feet distant, with the trees opposite the blank spaces in the other row, thus:

When the first row is sufficiently grown that the branches of the trees touch, one row may be removed for fuel. Trees may be obtained from nurserymen quite cheaply, but they can be obtained from the forest in most neighborhoods, and it is desirable to do so when possible. The smaller the young trees for transplanting the better, and they are better taken from the edge of the forest than those grown in heavy shade. The holes should be dug sufficiently wide to give room to the roots, and the roots should be well covered with good soil before tramping down. If the soil is not quite moist, water should be poured in and more soil put on over it to prevent baking of the ground. In early spring or late fall, however, this is not often necessary. Careshould be taken in transplanting that the roots of the young trees do not get dry.

Mixtures of Grain for Green Fodder.

Since receiving a printed copy of the 19th annual report of the Ontario Agricultural and Experimental Union we recognize that a typographical inaccuracy occurred in our report under the above heading published in March 1st issue of the FARMER'S ADVOCATE, which should have read as follows:

Mixture.		100		Com. Value.	Tons Green (per Acre.
Oats, 12 Peas, 2	bus.	per a	cre	 91	15.7
Tares,	44	44			
Oats, 11 Peas, 1	**	**		 } 100	13.7
Oats, }	**	44		 } 77	12.6

The Siberian oats, Prussian blue peas and common tares or vetches were used for the experiment. The comparative values expressed by 91, 100, 77 represent the estimate by experimenters, all things taken into consideration.

In addition to the enormous supply of home-laid eggs Great Britain imports nearly \$15,000,000 worth each year.