

the community as a whole. This community value of forests is considerable, and for that reason it is the duty of the community, through its representative, the Government, to assist the individual in restoring to the part of the Province spoken of that proportion of forest land which experience has shown to be wisest. For that purpose, among others, the Bureau of Forestry has been created, and it will be its endeavor, with the assistance of the farmers and the press, to carry on this work.

Forestry, however, covers much broader ground than this. It means the raising, care and management of a crop of timber in a way that will promote the most rapid growth of the most valuable sorts. It means also the harvesting of this crop in a manner that will be as inexpensive as is consistent with the future reproduction and growth of similar crops on the same land. While striving for these ends, the forester will at the same time have due regard to the proper location of the crop as regards its effects on water supply and climate. To attain to the best results in this direction and to provide for a future supply of timber for the needs of the Province and for revenue, trees must be grown in larger masses than the limited areas that can be devoted to the purpose by individual owners will allow. Although it may be profitable for farmers to set aside part of their farms for the growing of woodland crops for timber, fuel, etc., the area of each farm devoted to this purpose must necessarily be confined to the less productive part of the land, and therefore but a small lot will, in most cases, be kept wooded. For this reason, forestry on any extended scale will be largely confined to lands not yet given up to settlement and still owned by the Crown. It is only a question of a few years when the scarcity of first-class timber in the United States will have caused a considerable advance in price of forest products. With the enhanced value of the finished product of the forest will come more careful and scientific methods of getting out the raw material. A forest is not a mine to be exploited with the idea of its ultimate exhaustion, but a crop that should, when harvested, be succeeded by recurring crops of similar vegetation. It is gratifying to know that the more progressive of our lumbermen have come to recognize the crop idea as the correct one, and are disposed to act in concert with the Crown Lands Department in a more rational management of the forests than formerly obtained or was possible during the early years of the lumbering industry. Until higher prices for lumber prevail here than are now obtainable, it will be impossible to adopt the very careful and minute methods of European forestry management, but we can adopt a less wasteful system of lumbering than has been followed in the past. As an instance of the more rational methods about to be followed, I might mention the ready adoption by the lumbermen of the Fire Ranging Act introduced by the Department of Crown Lands. By this Act a number of men are employed to protect the forests from fire, and the expense is met jointly by the Department and the lumbermen. It is hard to estimate the saving that has been effected by this, but it is very great, and is evidence that in this great industry, as in other lines of agricultural activity, Ontario will continue to be found in the van of progress on this Continent.

STOCK.

"Blue-Grays."

SIR,—The letter in your issue of 1st inst., page 4, signed "Onlooker," recommending the Ontario Agricultural College to undertake the production of a new breed of cattle, to be known as Blue-Grays or Canada's Polls, has the right ring about it. There is a vein in the letter to make it apparent that the writer has much more knowledge about the matter than he has obtained from reading alone. As an old breeder of Shorthorn and Galloway cattle, I should say that "Onlooker" possesses practical knowledge of the subject of a high experimental nature, or he would not recommend such a drastic cross as White Shorthorns on Galloway, and Galloway on White Shorthorns, which, to many breeders of Shorthorns, especially among American breeders who have followed the red craze even to the destruction of many a fine herd, would be viewed with horror. I would like "Onlooker" to give your readers his true name, for the subject, to my mind, is of great importance to Canada. I may say I am in entire accord with "Onlooker" in his remarks, which, did I know who was the writer, I would be disposed to think, by a friendly discussion of the subject from his pen, and others of experience, would be followed by Canada's Polls becoming a fact, and sought for by many other countries, including even the great "protectionist" country in breeding cattle—Great Britain. I hope "Onlooker" will favor your readers with more on this subject over his own name.

Toronto, Ont. WILLIAM KOUGH,
Breeder of World's Fair winning Galloways.

William Clark, P. E. Island:—"I thank you cordially for the answer to my query re sheep quarantine. It was all that could be wished for—much fuller than I expected. I must congratulate you on your December 16th issue. It was a splendid number."

The 2.10 List Up to Date.

The racing season of the light-harness horses is at an end, and although the champion records have not been broken, nor the two-minute performer made his appearance, the entries to the most select circle, the 2.10 list, are many and show a vast improvement in the breeding and handling of trotters and pacers. Just eleven years ago this circle only had two members, a trotter and a pacer, in Johnston, 2.06½, and Jay-Eye-See, 2.10. Since that time the list has steadily grown, until in 1895 it numbers 107 pacers and 46 trotters. There were fifty new pacers that entered this rank, while only fourteen trotters have joined their brethren. Of the forty-six trotters that have records of 2.10 or better, but four have beaten 2.06, while only one other has equaled that mark. Azote's 2.04½ is the fastest trotting mile of the year, and Beuzetta, 2.05½, is the fastest new comer to the list. Fifteen pacers have marks of 2.06 or better, and eleven of these have been better than 2.05; Robert J.'s 2.02 at Detroit being the best mile of the year for a harness horse. But six of the pacers already in the 2.10 list have reduced their records, while Azote is the only trotter that has taken anything from his previous mark.

Of the one hundred and fifty-two trotters and pacers that made themselves famous by making records of 2.10 or better, thirty-nine were bred in Kentucky, nineteen in California, ten in New York, seven in Iowa, seven in Tennessee; six each are to the credit of Illinois, Kansas, and Indiana; Pennsylvania, Oregon, Ohio, and Missouri have four each; Michigan has three; Wisconsin, Minnesota, Maine, Vermont, Washington, and Massachusetts have two each; while one stands to the credit of Montana, Colorado, Mississippi, Idaho, Arkansas, New Jersey, Texas, and Maryland. There are eight others in the list whose place of nativity is unknown.

In addition to the above large number of members to the most select circle of 2.10 performers, there are in the neighborhood of sixty others that are standing at the gate knocking for admittance with only a fraction of a second to wipe off before they too can take their positions among the fast ones. In this case, as in the other, the side-wheelers are considerably in the majority. With no bad luck to happen them, the season of 1896 will close with a large number of these "over the line," with 2.10 or better attached to their names.—*Kentucky Stock Farm.*

The Benefits of Grooming Cows.

Taking one dairy herd with another throughout the country, it is the exception rather than the rule to find the cows regularly curried or groomed; in fact, many cows would wonder what had happened should they be given a good combing down. Horses are largely groomed to give them appearance, but observing horsemen cannot have failed to notice the healthful benefits derived from keeping the skins of their animals clean and comfortable.

Horse-grooming is no more important than is cow-grooming; and, in fact, the latter is the more important during the winter season, when the cows are milking, for the reason that comfort is an important factor in milk secretion. Not only that, but absolute cleanliness in the dairy cannot exist without regular cow carding. It is an abominable fact that some people never enter a bath-tub during the winter months, and the reason that more of them do not fall victims to disease is largely due to the constant friction of their clothing against the skin to rub off the effete material that is being continually exuded from the blood through the pores. The cow's clothing does not act thus, but rather hinders the removal of the scurf and exudate, except she be fortunate enough to come in contact with the side of a strawstack, which is this season a rare article.

The skin of an animal is an active excreting agent, through the pores of which a large quantity of used-up matter is eliminated, most of which, if not removed, will dry on the skin, covering and clogging the numerous pores, and thus loading the system with blood poison. By the daily use of a stiff brush or currycomb the skin is kept in healthy tone, the animals are rendered comfortable, if other conditions are right, and scurf, filth and falling hair is prevented from finding its way into the milk pail. Very many dairymen now keep their cows tied continuously through the greater part of the winter, which makes regular and careful grooming all the more necessary; and what is true of dairy cows applies also to other cattle.

Using Up Worn-out Nags.

There is a firm in Philadelphia, Pa., which is said to be making good use of horse carcasses, of which very little, if any, part is allowed to go to waste. The hide goes into cordovan and leather slippers and driving-gloves, the tail and mane hair is made into haircloth, and the short hair of the body is used for stuffing cushions, etc. The hoofs go into oil and combs. Knife-handles are made out of the leg bones; and the head and ribs are burned into bone-black, after the glue has been extracted. By chemical processes the following compounds are prepared: Ammonium carbonate, potassium cyanide, prussic acid and phosphorus; besides these refined products obtained from the horse, considerable of the flesh is canned for human consumption.

Sheep vs. Dairy.

This is the way a Dakota farmer puts the comparative profitableness of sheep-rearing and dairying: "My neighbor last fall had seventeen ewes, and from these he this spring had twenty-nine lambs. He lost three lambs and one of the ewes, so now he has 26 lambs from 17 ewes, and he had 24 sheep to shear altogether, the wool from which brought him \$10.40. Now, you can estimate those lambs at the low figure of \$1.50 each this fall. Last fall, when sheep were lowest I ever knew them to be in this country, I paid \$28.90 for 16 spring lambs. Those 26 lambs at \$1.50 each would come to \$39; the wool from 24 sheep at \$10.40 makes a total of \$49.40. Now, those 17 ewes were worth about what two ordinary cows were worth last fall, and it takes an awful good dairy to average \$25 or \$35 a cow. Besides, you have got to milk nine months in the year, clean stables once a day and feed twice. That flock ran out without anything whatever except a little feed in the severest cold weather. And what that farmer did with those 24 sheep there is no farmer in South Dakota but can do equally as well with from 100 to 150 sheep."—*Farm, Stock and Home.*

Successful Sheep Breeding.

SIR,—The possibilities of the sheep industry have hardly yet, I think, been fully realized. Men, undoubtedly, have become expert in breeding lines where apathy and indifference held sway before. They have studied the requirements of the markets and shaped their course accordingly in breeding with a well defined purpose in view; intelligent practice in breeding, feeding, and otherwise caring for the flocks, have rescued the industry from what many have been pleased in past days to term its downfall, and brought it to a higher plane, in many respects, than it ever attained before.

The great diversity of soil and climate in every country calls for diversified practice in caring for the flocks, and a desideratum is the choice of breeds to suit the various localities. The first consideration is, which one of the breeds or grades of sheep will be the best for each individual farmer to stock his farm with? This opens up a broad subject, and it is one of the very highest importance to the farmer who hopes to make sheep raising a success.

Agriculture to-day is based upon broader foundations, in its relations to successful practice, than was formerly the case. We have reached the time of day in agriculture when brawn cannot be so nearly substituted for brains as in the primitive days of farming. Strong hands are still needed, but the active mind and intelligent brain count for more in modern success on the farm. Our stock-growing interests call for the wisest thought and consideration to adapt it to special lines, and with no class of farm animals does the principle apply with more force than to the successful breeding of sheep to meet the requirements of the changed conditions of the sheep industry.

The first consideration, then, is to ascertain a breed of sheep adapted to the soil and climate where we are situated. This, I consider, is the first essential requisite in successful sheep farming, and the ignoring of which has often been attended with financial disaster. And, again, an adaptation to the requirements of the breeder. One thing which has been shown quite conspicuously recently, as I have studied the sheep industry from the standpoint of the farmer, and as seen in the varied practice of individuals who present the best of their flocks at an exhibition or show, is that some of the best sheep have been either pure breeds or have been remarkably well graded up. When you come to figure for a class of sheep suited to a wide variety of soil and climate, the medium sized breeds, I think, come nearer to filling the bill than any other. This is on account of the hardiness and the readiness with which they adapt themselves to their surroundings.

The hardiness of a breed or class of sheep is another important requisite in all fickle and trying climates. The selection of ewes for breeding cannot be to carefully done. Size in an ewe is one of the first considerations, if other points are in keeping. An undersized ewe will, as a rule, produce a small sized lamb, although if such a ewe has a good form, broad, thick shoulders for her size; straight, broad back; a thick fleece that will shed water readily; roomy body and deep through the loins; square buttock, and belly well covered with wool; such a ewe with a clean nose at two or more years of age, although somewhat undersized, is far preferable to one 25 pounds heavier, but of the thin-shouldered, roach-backed, scantily-clothed, tucked-