

change of his grain ration should likewise be gradual, and as we increase the daily amount we decrease the amount of whatever we have been giving as a substitute for grain. The amount of grain should be in proportion to the exercise given. We should not entirely discontinue the use of raw roots; we think a carrot or two, or a turnip of medium size, every day can with advantage be given at all times during the season in which they can be procured, whether the horse be idle or at work. We also favor giving a feed of bran, either damp or dry, at least once weekly, and when roots cannot be procured, at least twice. Roots or bran do not furnish any particular nourishment for a working horse, but they are, in most cases, relished, and they tend to keep the bowels regular.

In order to give the necessary muscular tone, regular exercise should be given. At first, probably a couple of miles daily, either in harness or saddle, may be sufficient, and the distance or its equivalent at light work gradually increased until 10 or 12 miles or more is given. It is better to give exercise in harness, for as well as acting upon the muscles, this brings the shoulders in contact with the collar, and accustoms other parts to the necessary friction caused by the harness, and thus gradually removes the tenderness that has been caused by idleness, and tends to prevent sore shoulders, necks, backs, etc. During this time grooming should not be neglected. The coat has, in all probability, become long, and in most cases lost the desirable gloss. We cannot shorten the coat or provide the gloss by grooming, but we can remove dust and dirt, and thereby open up the exits of the sweat glands, and hasten the shedding of the hair. If the hair be not shed when the weather becomes fine, and the horse must go to regular work in the field, it is good practice to clip, and, of course, be careful to provide clothing if the weather should become damp or chilly. In our opinion more benefit is derived from clipping in the spring in such cases than in the fall. "WHIP."

#### Glasgow Stallion Show.

We have just got over the Spring Stallion Show at Glasgow. It was held on February 3rd, and there was quite a fair turn-out of big, good horses. The trade in Clydesdales has been brisk, and there is a good demand at present, both at home and abroad. Since I last wrote a unique shipment of Clydesdales was made to Australia. A wealthy native of Ayrshire, in Victoria, sent home a commission to Mr. James Kilpatrick to purchase for him two stallions and three mares. The mares were to be in foal to the three famous horses, Hiawatha, Baron's Pride, and his son, Baron o' Buchlyvie. Mr. Kilpatrick executed his commission to good purpose. He sent the stallions, Mazawattee 10817 and Royal Title 11923. The mares were Lady White, a daughter of Hiawatha, and champion last year at Kilmarnock and Glasgow, in foal to Baron o' Buchlyvie; Donna Roma, a Macgregor mare, full sister to the great horse Drumflower, in foal to Baron's Pride, and Lady Horatio 14683, in foal to Hiawatha. A shipment of this kind should advance the Clydesdale interest under the Southern Cross. Canada has also been an active purchaser during the past month. In my last letter I mentioned the shipment made by Mr. Richardson, of Smith & Richardson, Columbus, Ont. Since then Mr. Tom Graham, of Graham Bros., Claremont, Ont., has sailed with ten stallions, nine for his own firm, and one as stud horse for Mr. Robt. Davies, Toronto. The last is a promising big horse, by the champion sire, Prince Thomas 10262, which was purchased at public auction for £950. The horses for Graham Bros. are all three-year-olds, and among them are several got by the champion, Baron's Pride 9122, and his noted son, Up-to-Time 10475, one of the most successful breeding horses of the day. One of these horses is own brother to the Cawdor Cup champion mare Lady Victoria; another is own brother to the winning yearling filly of last year, and a noted prize mare, named Scottish Grace. Others are by big, good breeding horses, winners of district premiums, and I expect Mr. Graham will have plenty demand for these horses.

Another Canadian shipper who sailed in the same week as Mr. Graham was Mr. T. H. Hassard, Millbrook, Ont. This was his third trip within twelve months. He had an equal number of horses, and nearly all of them were three-year-olds. Mr. Graham got all his horses from Messrs. A. & W. Montgomery, Kirkcudbright. Mr. Hassard bought three of his from Mr. Peter Crawford, Dargavel, Dumfries; two from Mr. Jas. Kilpatrick, Craigie Mains, Kilmarnock, and five from Mr. W. S. Park, Hatton, Bishopton. A great substantial horse in Mr. Hassard's shipment is the prize horse Gallant Robert 10347, a half-brother to the extraordinary champion horse, Hiawatha, whose stock yesterday were figuring to great advantage as big matured stallions. He has three-year-old horses by the champion Prince Thomas 10262, the famed Mains of Airies 10379; the H. & A. S. first-prize horse, Good Gift 10564;

the Glasgow premium horse, Clan Chattan 10527, and that grand, big horse, Royal Carrick 10270, which also won the Glasgow premium and stood second at the H. & A. S. show at Inverness. After a shipment like this it will not surprise us to see Mr. Hassard back again in a few months. He has the kind of horses that Canada wants.

The Stallion Show was a success. The exhibits, as a rule, were big horses, with plenty of weights and substance. The supreme honor of the show, the Society's 20-gs. cup, went to Mr. George Alston's Revelanta 11876, a son of Baron's Pride, and winner of numerous prizes during the past two years. He was bred by Mr. John W. Hannah, Girvan Mains, and his dam is a good breeding mare, by the famous £3,000 horse, Prince of Albion 6178. Besides Revelanta, sons of Baron's Pride were second and third in the same class of three-year-old horses. Mr. Clark's Baron's Best 11597, which sometimes beat him last year, was placed second, and Mr. Wm. McConnell's Baron's Crest 12024 was placed third. Baron's Best, in a class of three-year-olds, competing for the Glasgow district premium of £80, was placed first. In the class of horses four years old and upwards, Mr. A. B. Matthews, Newton-Stewart, was first, with the six-year-old horse, Labori 10791. This horse was first at Glasgow when a three-year-old. He is a son of the celebrated Hiawatha and although defeated by Revelanta in the open competition for the 20-gs. cup, he won the Brydon 100-gs. challenge trophy, for which Revelanta had not been entered. This is the first year in which this great prize has been competed for. It is presented by Mr. Robert Brydon, the President of the Clydesdale Horse Society, to encourage the breeding of big horses. No horse can win it, if three years old, unless at least 16.3 hands high, or if four years or upwards, unless 17 hands high, with width and depth in proportion. No horse can win it unless he is passed sound by a qualified veterinary surgeon, and if four years old, he must be proved to have left fifty per cent. of the mares served by him in the previous year in foal. It is unfortunate that the first horse to win this trophy should have been beaten in an open competition by a three-year-old, yet the decision cannot be called in question. Second in the aged class to Labori, stood Mr. W. S. Park's fine level Clydesdale stallion, Royal Chattan 11489, one of the truest Clydesdale stallions we have. Mr. James Kilpatrick was third with Pearl Stone 11449, which won the three-year-old class a year ago. The aged Glasgow premium horse, Marconi 11817, owned by Mr. John Leckie, Inchwood, Wilton of Campsie, and a son of Hiawatha, was fourth. The first-prize two-year-old, Mr. Marshall's Hiawatha "Godolphin," was also got by the same sire. Mr. John Kerr, Redhall, Wigton, Cumberland, showed two grand horses—full brothers—Lothian Again 11804 and Lord Lonsdale 11799. They were both placed in their classes, and hired for good districts. Their sire was the famous Cumberland breeding horse, Lord Lothian 5998. "SCOTLAND YET."

### STOCK.

#### Observations on Sheep-breeding.

As the result of an extended series of experiments, the following observations on sheep-breeding are made:

From the breeding records of 154 ewes, the normal period of gestation ranges from 144 to 150 days after the date of service, and more ewes will lamb 146 days after service than at any other time.

There is no appreciable difference in the period of gestation for male and female offspring in sheep.

There is an apparent relation between the duration of the period of gestation and the period required for maturity. Quick-maturing breeds appear to carry their young for shorter periods than those breeds requiring more time to mature.

Large lambs are on the average carried in utero for an appreciably longer period than small or medium lambs.

Lambs dropped before the one hundred and forty-fourth day and after the one hundred and forty-ninth day of pregnancy are lacking in strength and vitality at birth.

From the data presented it is apparent that twins are the normal increase for ewes of the medium type.

One-year-old rams are not so prolific as those two or three years old. Ewes average a larger percentage of increase in lambs after they reach full maturity, at three years of age, until after they are six years old, when the rate of increase diminishes.

The amount of service required of the ram in breeding has an influence on the percentage of increase in offspring of the ewes that produce lambs. Ewes bred early in the season of mating to a single ram dropped a larger percentage of lambs than those near the latter end of the season.

#### Canada and the St. Louis Fair.

It is now definitely settled that there will be no national live-stock exhibit from Canada to St. Louis. This means that the grant of one hundred thousand dollars given by the Dominion Government will be, and has already been, withdrawn, and those who intend to show will be left to paddle their own canoe. Whether this is a wise move or not is matter for Canadian stockmen to consider.

It is still fresh in the memories of a great many stockmen in Canada, the enthusiasm that was shown at a meeting held in Guelph for the purpose of getting in shape to show at St. Louis, and arrange the grant from the Dominion Government, and strange as it may appear, some of those who were most enthusiastic in trying to get this grant, after it had been given, were the first to say to the Government, "We do not want it." Has it ever dawned upon these men, whom I believe are perfectly honest in their convictions, that we have been too hasty in this very important matter? In my opinion most of the obstructions that stood in the way of Canadians showing at St. Louis were matters that should have been taken up with the United States Government at Washington, not with Mr. F. D. Coburn, Chief of the Live-stock Department of the St. Louis Exposition. True, the question of our pure-bred records not being accepted at St. Louis is something that every true Canadian should resent, and is a matter for Mr. Coburn and his staff to adjust, which I have every reason to believe has been done.

In conclusion, the case presents itself to me in this way: What will Canadians lose, and particularly those who are interested in the production of pure-bred live stock, by Canada not being well represented at St. Louis in the greatest of all their industries? As it remains now, there will be a few straggling exhibitors find their way to what is supposed to be the greatest of all exhibitions the world has yet seen. And is it fair to assume that these few men can fairly and adequately represent a country that is second to only one other, namely, our motherland, in the production of good live stock? Knowing what will be the outcome, how many of us will care to read the reports of the show handed down, and what will other nations think of us and the position we occupy in this grand and noble work? I do not wish to censure any one or two men for the present state of affairs, but dare I ask how many were present when the action was first taken to dispense with this grant, and not show at St. Louis, that have been regular exhibitors at former International Exhibitions?

Would it not have been fair to the men who are and have been preparing their stock for a year or more to have had them present, and given them an opportunity of expressing their views?

D. C. FLATT.

#### Live-stock Records.

We have been asked to give a list of the pure-bred live-stock records now conducted in Canada. For horses they are the Canadian Clydesdale, Shire and Hackney Studbooks; for cattle, the Dominion Shorthorn Herdbook, the Canadian Hereford Herdbook, and the Canadian Ayrshire Herdbook, of which Mr. Hy. Wade is Registrar; also the Canadian Holstein-Friesian Herdbook, of which Mr. Geo. W. Clemons is Registrar. For swine, the Dominion Swine-breeders' Record, including Berkshires, Yorkshires, Chester Whites, Tamworths, Poland-Chinas, Duroc-Jerseys, and Essex, for which Mr. Wade is also secretary. The Holstein-Friesian Record is entirely independent of any government aid. Although the other records named are also all national in name and character, the Registrar's salary and office room are provided by the Provincial Government, that of Ontario, but he receives in addition a certain amount in fees for each pedigree recorded under the rules and regulations laid down by the breed associations, he paying his office assistants.

For Aberdeen-Angus, Galloway, Jersey and Guernsey cattle and sheep, American records are patronized by Canadians.

Coming to Quebec, however, there is what is called the "General Breeders' Association of the Province of Quebec," organized in September, 1895, and which conducts 19 sets of Provincial records for the following breeds: French-Canadian cattle, Holstein cattle, and French-Canadian horses; sheep: Leicester, Cotswold, Shropshire, Lincoln, Oxford; swine: Yorkshire, Berkshire, Chester, Tamworth, Poland-China, Duroc Jerseys. The association is divided into five sections, viz.: for French-Canadian horses, French-Canadian cattle, Holstein cattle, sheep and swine. Each section is controlled by a committee of management, and the association is governed by a general board of management, composed of a president, two vice-presidents, one general secretary, and five directors, who are the chairmen of the committees of management of the five sections. The officers of