

figures will show those of last year. per day are noticeable. 100 pounds gain are particularly so. re particularly so. consider first the remember that the 1 that of 1907-08, ere smaller and in ng January and cold months, the old their weights. d that the average only eight pounds ber 12th. In the s gained as much smaller ones must. It was very notice-ffered more during an the big steers, period made much or which was no gains during the the difficulty of

those tied in the This is largely due est type of feeders, ay on flesh rapidly, feed as the outside best showing. As e best lot to begin are partly attribu-nd the abundance must also account hat four of those a cent less than the y were not so uni-

there were several feed. There were t that several days each case. None l during the period eir feed. Had the d there would un-ble than we had. a above, no allow- in the amount est on investment. th the feeding done outside, and more an when they are much less capital ing is done outside. a profit per steer, a placed on all straw considered a waste disposed of, it may et profit per head the straw. Giving r feeds, we find the

Inside (tied) \$6.54
e more nearly cor-oint of view of the clearly whether or or lost by feeding selling it. If the ding the grain are got on the market, have been carried me values as given l valuing the bran t for the grain fed ed with the various

Inside (loose)	Inside (tied)
\$36.73	\$31.51
.62	.53
.88	.75

it have been ruling id that these com-eked prices. While ed in experiments y the manure pro-ices secured for e market, a margin up any difference average conditions

difference between o years that the y, it is not possible ns. It would ap-ighing from 1100 ed to much better ler class and that

during extremely cold weather even good cattle make comparatively small gains. When housed in a comfortable, well ventilated stable, gains were made more economically for feed consumed than when no shelter was provided. Where feeding is done outside it would appear to be advisable to provide a shed well bedded to furnish shelter from high winds during cold weather.

FARM

Letters Upon Farming Operations Welcomed.

Our Scottish Letter

HARVEST OF THE GRIM REAPER

It is difficult in these days to keep up one's duty in respect of correspondence, and my letters have sometimes become few and far between. This letter is usually written by me on a Saturday afternoon, and during the month of April I was attending a funeral on almost every Saturday. Death has been very busy among leading farmers of late. We have lost two notable men in Andrew Hutcheson, Beechwood, Perth, and James Hamilton, Aldersyde, Uddingston. The former was the ablest platform speaker among farmers in Scotland. He was a breezy orator with a voice that sounded like a circular saw, and an unflinching fund of dry, caustic humour. Not many like him could be found, and he never spoke better than when rising impromptu and unprepared. His studied addresses were good enough in their way, but he excelled in debate. To be so irresistible a guerilla warrior he was a marvel when in the chair. No one could more successfully conduct a meeting with a stern regard to the rules of debate, and he pushed through an immense deal of business in a very short time. Mr. Hutcheson farmed extensively in the Carse of Gowrie. He was an out and out commercial farmer, absolutely guiltless of any knowledge of pedigree stock of any kind.

James Hamilton was a man of totally different type. He was calm, reserved and calculating. He was one of the shrewdest and most farseeing men in Glasgow. He and his brother built up one of the finest wholesale provision dealers' businesses in the city. He had a keen sense of what was right in dealing with dairy produce, and handled great quantities of both home and foreign butter, cheese and eggs. He was chairman of various public companies engaged in the production and sale of provisions. He travelled extensively and he had a keen business instinct, realizing where additional supplies might be obtained and constantly urging by word, but more frequently by carefully-weighed and prepared lectures read at what you would call Farmers' Institutes, that home farmers should produce the best and that only. Mr. Hamilton's hobby was harness horses, and when owning these he was a hard man to beat in a showyard. He took an active interest in the affairs of the Glasgow Agricultural Society. He died at the comparatively early age of 57.

BUDGET REFLECTIONS

The Budget is the all prevailing theme these days. The funds set aside in it for agriculture and forestry amount to £200,000 which ought to do something to develop education although probably you folks in Canada would not regard it as sufficient to do very much. Here we are thankful for small mercies, and when we cannot get the silk gown we are quite pleased to have the sleeve. What we want in this Old Country is a more equable temperature, an increase of landlords having cash and willing to spend it, a race of farmers who would not despise education but avail themselves of it at every turn, and an administration of the law with respect to adulterated products from abroad, which would seem fair play to the home producer. All this looks well on paper, but very little that is practical can sometimes be got out of lairds and their factors. They are willing to sympathize, but if they can escape outlay they will do so. They are pensioners on their own estates at the mercy of those who have lent money upon such property. The Chancellor of the Exchequer proposes to mulct property or real estate for increased taxation, and the argument from his standpoint has a good deal to recommend it. The abuse of property is a running sore in this country, and if the gentlemen who hold up land which ought to be sold as building ground within the city could be forced to let go and sell for

building sites, sufficient money would be obtained to reduce rates, and many an artisan would find residence near his place of labor who is now compelled to travel by train at an additional outlay to places of abode at a distance. There is another abuse of land to which attention has been directed from time to time. That is the ransom at which land which is wanted for public purposes is held by its owner. In a recent case £19,000 were paid for acres of swampy land which competent men said were not worth more under any circumstances than £7,000. It is supposed that the taxation of Land Values after the manner of Henry George would rectify this abuse. How that would come about we know not, but the Chancellor means to have a try this time.

SCOTCH AND CANADIAN IDEAS OF AYRSHIRES

Ayrshire cattle have many good friends in Canada. At present there are with us more than one of these, and their opinion of our Scots methods of judging dairy cows are not flattering. We are strong in the milk section for tightly-made and hung vessels, and well-planted teats. The Canadians are eager to have cows with good bags, teats that can be easily milked, and a milk record. The Canadian buyers who are with us say they were never the better of our "milk stock," but that they have done well with young queys bought out of what we have designated our "yeld seekin'". There are well-made, big cows which yield plenty of milk. Cows up to a good size and of the right shape are what is wanted provided they have a certified milk record. Unfortunately we have some ways of keeping or staking milk records that are quite misleading, and a strong effort is being made to put the system on a sound basis. These efforts are to be crowned with success, and the shows which have been held during the past few weeks show a marked improvement in the direction of greater utility in the dairy properties of Ayrshire cattle. The championships of the breed at the three leading spring shows have been going to big, useful, healthy-looking dairy cows.

REVOLUTION IN COW BYRE TEMPERATURES

In this connection the Highland Society has resolved to renew the experiments in 1909 which have sought to discover the truth as to the temperature in which a dairy cow yields her best. The theory hitherto has been that in order to obtain this result the byre must be kept warm, that is, at a temperature of over 60° F. The experiments of 1908 have, however, rather shaken faith in this theory, as the results in byres which are kept at a high temperature and those kept at a low temperature exhibit no practical difference. These results are so much opposed to long-established theories that it has been resolved to renew the experiments for another season. Should 1909 yield the same results as 1908 a good many theories will require to be set aside. Byres hitherto considered ideal for milk production will likely be overhauled, if not closed, and cows will be kept under much more healthful conditions than those to which they have been accustomed. However, let us not anticipate. These are the lessons which the past season's trials have taught.

CLYDESDALE NOTES

Clydesdales are being shown in goodly numbers this year. So far the females have excelled the males in merit. The brood mare classes at the three principal spring shows have filled well. The championship of the female section in two cases out of three has gone to D. Y. Stewart's dark brown, five-year-old mare, Veronique by Montrave Ronald. She has a nice foal at foot by Silver Cup. The stallions of all ages are bigger than usual. The champion at Kilmarnock was the Messrs. Montgomery's unbeaten Fyvie Baron, a wonderful colt which has never known defeat; at Ayr the same owners' British Time, a very thick, round-ribbed, short-legged three-year-old, (his action is close and of the class always looked for but seldom found;) and at Glasgow W. S. Park's big, powerful, dark-colored horse, Laird of Erskine, the district premium horse this year. These are three horses of quite outstanding distinction, and capable of waging war for the Clydesdale in any company. Fyvie Baron created a sensation last year when he was unbeaten, and this year he promises to repeat the performance. His breeder, John P. Sleight, St. John's Wells, Fyvie, achieved remarkable success at the Glasgow show this week. He was first in three classes with gets of Baron's Pride, two of them a yearling and a two-year-old, full sisters, and the third the well-bred horse Baron

Ian, which won in the two-year-old class. A man might live to a green old age and not achieve anything like the same result a second time.

THE WHEAT GAMBLE

What's the meaning of the wheat boom? Is wheat in reality scarce or is this little game purely the work of one man who has "made his pile" out of artificially raising the price of the food of the people? If it is the latter, with me the question would be what punishment does the man merit who makes a fortune out of such things. The question is not easily answered, and those interested might work a long while at it before it would yield itself to reason.

SCOTLAND YET.

Mixing Concrete

Kindly explain the best method of mixing concrete. Are the mechanical mixtures likely to make as evenly a mixed batch of mortar as may be produced by hand mixing?

I. G. S.

It has been demonstrated that concrete can be mixed by machinery as well, if not better, than by hand. Moreover, if large quantities of concrete are required, a mechanical mixer introduces marked economy in the cost of construction. None of the various forms of mechanical mixers will be described here, since concrete in small quantities, as would be used on the farm, is more economically mixed by hand.

In mixing concrete by hand a platform is constructed as near the work as is practicable, the sand and aggregate being dumped in piles at the side. If the work is to be continuous, this platform should be of sufficient size to accommodate two batches, so that one batch can be mixed as the other is being deposited. The cement must be kept under cover and well protected from moisture. A convenient way of measuring the materials is by means of bottomless boxes or frames made to hold the exact quantities needed for a batch.

A very common and satisfactory method of mixing concrete is as follows: First measure the sand and cement required for a batch and mix these into a mortar. First, deposit the requisite amount of sand in a uniform layer, and on top of this spread the cement. These should be mixed dry with shovels or hoes, until the whole mass exhibits a uniform color. Next, form a crater of the dry mixture, and into this pour nearly the entire quantity of water required for the batch. Work the dry material from the outside toward the center, until all the water is taken up, then turn rapidly with shovels, adding water at the same time by sprinkling until the desired consistency is attained. Spread out this mortar in a thin layer and on top of it spread the gravel or broken rock, which has been previously measured and well wetted. The mixing is done by turning with shovels three or more times, as may be found necessary to produce a thoroughly uniform mixture, water being added if necessary to give the proper consistency. The mixers, two or four in number, according to the size of the batch, face each other and shovel to right and left, forming two piles, after which the material is turned back into a pile at the center. By giving the shovel a slight twist, the material is scattered in leaving it and the efficiency of the mixing is much increased.

This method applies where broken stone, rock and gravel are used as filler. Where gravel and sand may be obtained mixed naturally in about the right proportions, this material is mixed directly with the cement, wetted and rammed into the work it is required for. This is the usual method in mixing concrete for farm use. A smooth light platform is laid down, the bottom knocked out of a convenient sized box and pieces nailed along each side and projecting a foot or so at the ends for handles. This box should hold enough for one batch. It is placed on the platform and shovelled full. Its capacity requires to be known so that the cement to mix with it may be measured in. The gravel is spread out on the platform, the cement scattered over it, and the mass mixed twice dry. Then the material is drawn from the center and heaped around the edges and sufficient water put on to take up all the dry gravel and cement, and moisten it to the degree required in the work.

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The results of the spring examinations at the Ontario Agricultural College, have just been reported. Among those from the Western Provinces who have passed successfully are the following:

First year: C. C. Rebsch, Peachland, B. C.; W. J. Fraser, Revelstoke, B. C.; F. T. S. Powell, Ruddell, Sask.; J. C. Curtis, Virden, Man.; E. W. White, New Westminster, B. C.; D. Davidson, Birch Hills, Sask.; N. N. Grimmer, Penden Island, B. C.; D. M. Robb, Victoria West, B. C.; A. G. Bland, Kelowna, B. C.; H. A. Skene, Grand Coulee, Sask.; W. N. Campbell, Victoria, B. C.

Second year: F. Palmer, Victoria, B. C.; T. O. Clark, Calgary, Alta.; R. G. Thomson, Boharn, Sask.

Third year: J. S. Neville, Cottonwood, Sask.; J. Laughland, Hartney, Man.