THE FARMER'S ADVOCATE & HOME MAGAZINE

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CONTENTS.

Good Grounds for Faith in Canada.

"It is refreshing, however, to find that the year of grace, 1895, bids fair to eclipse all its predecessors in the shipment of cattle and sheep from this to the Old Country. This is surely a striking proof of the vitality of the Canadian live stock industry, in which exporters have already embarked millions of dollars."—*Cattle Exporters and Butchers' Advocate, Montreal.*

The natural conditions of Canada are pre-eminently favorable to live stock husbandry, the sure foundation of pure-bred stock was early laid, and we have *the men* with the necessary intelligence, integrity and stability to achieve success in any arena in the future as they have in the past. Canada bids fair to become the world's greatest breeding ground. With Manitoba, the great Northwest, and British Columbia, as well as the older Provinces, in our view, we have as yet witnessed but little more than the dawn of its development. The exports of "animals and their products," the produce of Canada, grew from $24,719,297 worth in 1888 to $31,736,499 in 1893, of which nearly $28,000,000 worth went to Great Britain. "Agricultural products," the growth of which depend very largely upon live stock husbandry, amounted to over $22,000,000 more in exports. The significance of this is very apparent when we consider that the total exports, the produce of Canada, in 1893 amounted to but a trifle over $102,000,000. Canadian agriculture, with Canadian live stock husbandry as a sheet-anchor, is a good thing to have faith in.

Profit or Loss in Wheat-Growing?

Sir John B. Lawes recently drew attention to the fact that the exhaustion of the soil under continuous wheat-cropping without manure at Rothamsted has been very slow. Eighteen bushels per acre were grown in the favorable season of 1894, the last time manure was put on the land having been fifty-five years ago, though prior to that time we believe the land had been heavily manured. During the past ten years the average has been 11½ bushels per acre, and during the ten years previous, 14½. The greatest yield was 21⅛ bushels in 1854, and the lowest, 4¾, in 1879, the variations being due to the character of the seasons. Owing to a series of unpropitious seasons between 1871 and 1883, the average yield of this unmanured land was lower than it had been during the last ten years. Still, there is a gradual diminution in the crop going on, and if the seasons were all exactly alike, instead of being widely different, we might expect to find this decline to be precisely the same each year. It is stated as the result of elaborate calculations, that the falling off in produce for soil-exhaustion alone from year to year is a little more than one-sixth of a bushel per acre, or a little over one per cent. per annum, which is rather a slow rate of depletion for land cropped continuously without any fertilizer, and emphasizes what thorough cultivation will do.

The land devoted to the continuous growth of wheat was treated in three different ways, viz.: *(a)* without manure; *(b)* with 14 tons per acre of farm-yard manure, and *(c)* with a great variety of chemical manures, both singly and in combination. On the plots to which 14 tons of farm-yard manure were applied annually, the average yield of wheat for 40 years was over 34, or 2⅔ times as much as off the unmanured land. The average for the first half of the period was 35⅝, and for the second half, 33⅓ bushels. The average increase over the unmanured plots was 21.87 bushels per acre per annum, which may be taken as the return for the application of the 14 tons of manure, together with the increased store of fertility left in the soil from unexhausted manure, and what is contained in stubble, roots, etc. With regard to the other two classes of experiments, we can only say that mineral manures alone gave very little increase of produce; that nitrogenous manures alone gave considerably more than mineral manures alone; but that mixtures of the two gave very much more than either separately.

The average produce (about 35 bushels) from the manured land was about seven bushels above the average of the United Kingdom, on land under ordinary cultivation. According to the report of the United States Secretary of Agriculture, the average over the Republic for the four years 1890-3 was only between 12 and 13 bushels per acre. The Dominion Statistician puts the average yield of Canada at about 15 bushels per acre. Ontario's average of winter wheat for 1894 was 21.2 bush., and for the 13 years (1882-94), 20.1 bush.; spring wheat, 1894, 14.6 bush., 1882-94, 15.2 bush.

Incidentally we might mention just here that according to the summarized report of 4,000 experts, the cost of wheat-production in the United States in 1893 was $11.48 per acre, including rent of land and all other expenses. During the same year the average yield was less than 12 bushels per acre; so that at the way wheat has been selling of late years a very considerable valuation must be placed upon the straw to bring the United States wheat-grower out even. To regulate the price of wheat is a hopeless task for the producer; but he may turn loss into profit by bringing up his average yield by the choice of the best available varieties adapted to his conditions and by superior methods of farming, and, in so far as is consistent with the latter, keeping down the cost of production by economical management.

WORK AT THE FAIRS.—The Fall Exhibitions will afford splendid opportunities for obtaining new subscribers for the FARMER'S ADVOCATE. Write us for "Terms to Agents" and free sample copy.

STOCK.

The Selection, Feeding and Fitting of Dairy Cattle for the Show Ring.

BY WM. STEWART, JR.

We will suppose that the beginner in making a start has selected his females with which he is to form a nucleus for his future herd of dairy cows, and that these have been selected with great care, for the future usefulness of the herd greatly depends upon the foundation upon which it is based. Do not begrudge the breeder from which you make your purchase a few paltry dollars, providing you are getting an animal that will add volumes to your herd in after years. A poor animal is dear at any price, and will in nine cases out of ten be a damage to you instead of a source of pleasure and profit. In selecting your dairy cow see that she has the wedge shape when viewed from the front, from the side and from the top. She must have a good constitution to stand feeding. She must have a loose frame throughout; lots of space between the last rib and the hocks, wide between the ribs, ribs well-sprung; a strong, straight back; broad and strong, but not heavy loin; spine well-defined; lots of room for the lungs; good, deep, but not heavy flank; capacious udder, hanging squarely and well carried up, as it is less liable to be damaged from various causes; the teats must be of good size and squarely set; the milk veins must be well-developed; the skin must appear soft and mossy to the touch,—do not get too thin a skin as that is a sign of a weak constitution; on the other hand, it must not be too thick and hard,—the whole covered with a good, soft, mossy coat of hair. Look well to her disposition, to which the eye is a mirror. See that she has a good, placid countenance. We will suppose, then, that you have selected your females. Next comes the sire, and he is half of the herd. Too great care cannot be taken in the selection of the sire. The same points as given above will apply to him, except those referring to udder. He must not only be good individually, but also his parentage on both sides. Consider well whether he will couple right with your cows, and we will consider now the nucleus for your future herd selected.

Feeding.—There are scarcely two animals that feed alike. Great care has to be taken regarding the feeding of those cows as to profit. Do not give your cow more than she will assimilate; on the other hand, do not begrudge her what she will eat up clean, and think by so doing you are making a saving. The dairy cow is a machine for manufacturing good wholesome food into milk for the manufacture of A 1 cheese and butter. The more food, then, you can get your cow to eat, providing she is utilizing it, the more money you will make. Feed, then, plentifully but economically, of good nutritious food suitable for the production of milk, such as well-cured hay and ensilage, bran, oil meal or linseed-meal; mangels, with the addition of a ration of cracked grain, say two quarters oat or barley chop, or both mixed, one-quarter bran and one-quarter pea-meal, with the addition of a little flaxseed-meal. If your cows are on pasture of which there is an abundance very little can be added until this begins to fail, when the above can be given. Commence by bringing the cows into the stable night and morning during milking hours. Commence carefully by giving a small quantity to each animal as you see they stand in need, increasing the amount until within three or four weeks of showing, at which time they can be kept in altogether and receive their full ration as above. Be careful not to over-feed, but keep each animal moving along nicely, paying every attention to having them in full vigor for the show-ring. See that their coats are bright, and in order to have them so, wash each animal thoroughly with soft water and castile soap, then put on a blanket; if one is not enough, put on two; you need not keep the blanket on all the time, but at intervals. Repeat the washing at intervals of a few days, applying the blanket, and you will be surprised how the old coat will be replaced by the new. Groom carefully, not to scratch the skin; use the brush and lots of elbow-grease, and you will have a coat that will not fade between the stable and the show-ring.

Ensilage in Drought.

On the occasion of a recent visit to the farm of Mr. R. W. Stevens, Lambeth, Ont., we were pleased to observe an evidence of foresight that was proving most helpful in overcoming the effects of the drought. At the date in question—July 18—he had about six feet of No. 1 ensilage in his silo held over from last winter. For the last few weeks his cows have been housed night and morning and given a liberal allowance of the ensilage, which was quite equal in quality to what it was in the dead of winter. And the animals consumed it greedily, its succulence being a great help to the milk flow. Mr. Stevens informed us that last year he was also fortunate enough to reserve a portion of the contents of his silo for summer feeding when the pastures became parched and brown. It is a simple matter to grow a few acres more corn, and by deepening the silo or putting up a small additional one, have a supply of food that can be drawn upon at any time. Mr. E. D. Tilson, of Tilsonburg, Ont.; the Messrs. Gilmour, of Nilestown, Ont., among others, have also found the advantage of old ensilage under such circumstances.