

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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DOMINION.

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AGENTS FOR THE FARMER'S ADVOCATE AND HOME JOURNAL,
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- THE FARMER'S ADVOCATE AND HOME MAGAZINE is published every Thursday.
- It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.
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is true economy. The colt flesh should never be lost. Condition is half the horse at any time, and in the draft breeds, in particular, value is in proportion to weight. A saving of \$10 in expense is dearly won if the selling price of the horse is thereby lowered by \$20 or \$30.

"It costs as much to produce a given weight of inferior as of superior horse," says Dr. Standish. That note is sounded in several of the letters received. The farmer who breeds common horses receives only a common price, which leaves him little or no profit. The higher-class horses cost no more for feed and attendance, are a source of pleasure to the breeder while he has them, and, when sold, leave him with a much greater margin of profit over expenses. To breed this class of horses, not only should the stallion be of good type and sound, but the mare should also be of the class that is aimed at in breeding. Mr. Dolson, who raises draft horses for commercial purposes, keeps only mares that are sound, good-tempered, and built on approved draft lines, and that weigh from 1,500 to 1,600 pounds. With such mares carefully mated, how much more certain is the likelihood of raising colts that will be profitable, than if mares of nondescript breeding and appearance are used, and dependence placed on the quality of the sire alone? The difference in value between a high-class animal and one of slightly inferior type is much greater than the difference between their working capacity and wearing quality. We give quotations from the Montreal horse market: Heavy draft, 1,500 to 1,700 pounds, \$225 to \$300 each; light draft, 1,400 to 1,500 pounds, \$180 to \$210 each; small animals, 1,000 to 1,100 pounds, \$100 to \$150 each; choice saddle and carriage animals, \$300 to \$500 each. The moral is plain: the best are the most profitable. Raise the best, and, while practicing reasonable economy in feeding, do not sacrifice a hundred dollars in ultimate value for the sake of saving twenty-five dollars in feed.

The date on the label will tell you whether your subscription to "The Farmer's Advocate" has expired or not. Look at it.

Agriculture and Science.

REVIEW OF AGRICULTURAL FEATURES AT THE MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

We, in Canada, are becoming accustomed to displays of energy on the part of our great western city, Winnipeg; but to many of our overseas brethren it no doubt came as a surprise that so young a city should be prepared, in sentiment, to welcome, and in accommodations to successfully entertain, a society of the magnitude and high intellectual character of the British Association for the Advancement of Science. Indeed, the common conception of Winnipeg in England would probably be fairly represented by the remark made to the President of the Association by a friend, who had seen the city on the occasion of one of the earlier visits of the Association to Canada: "Winnipeg! Oh, that is the place where they plow the streets to make them smoother!" To one with such ideas of the crudeness of the place, what an agreeable surprise must have been offered by the broad asphalted streets, the comfortable homes, the luxurious hotels and clubs and the handsome business blocks, including the steel skeleton of the thirteen-story sky-scraper in process of erection near the corner of Portage and Main Sts.! Winnipeg has now reached a stage when a reference to her ancient mud is received with as serene a smile as an allusion to "Muddy York" in Toronto.

Ample accommodation for the meetings of the sections was provided within a convenient radius by the University and Parliament buildings and the neighboring public schools, while the Walker Theatre offered an ideal auditorium for the evening discourses.

Agricultural problems, and particularly those of the Western plains, were prominent upon the programme. For some reason, unfathomable by any but conservative Britons, agriculture has not up to the present been accorded the dignity of an independent section of the Association. The authorities appear to be sadly puzzled as to its classification. At one meeting it has been assigned to economics, at another to botany, and so on. The advisability of constituting it an independent section was urged upon the General Committee at the present meeting, and the attendance at the session, the number and quality of the contributions and the vitality of the discussions would surely justify such a step. The question is still undecided as we write.

WORLD'S WHEAT SUPPLIES.

The address of Major Craigie, as President of the Subsection, was devoted to a statistical discussion of the world's demand for and supply of food. Major Craigie's conclusion that in the light of the experience of the eleven years which have intervened since Sir William Crookes, in the presidential chair of the association, gave expression to his fears of an approaching wheat famine, there does not appear to be any just cause for alarm, was concurred in with remarkable unanimity in a subsequent discussion by the combined sections of agriculture and economics. The Major reiterated his formerly expressed opinion, that the transfer of population to the wheat- and meat-growing regions was a much healthier form of development than the perfecting of means of transport of food supplies to vast industrial centers, that it was wiser to bring "the men to the food rather than the food to the men." The address closed with a warning to local agriculturists not to treat their land as "a mere wheat mine, to be exploited in all haste and without regard to its permanence and its future profitable development. . . . The farming of the future must ultimately be one of more careful tillage, more scientific rotations, and of consideration for the changes in the grouping of population, and in the world-wide conditions of man and his varying wants."

Major Craigie's address forms a valuable contribution to the statesmanship of agriculture.

One session of the Subsection was devoted to live stock; another to forestry; a third to questions of soil fertility, and in a joint meeting with the Sections of Chemistry and Botany, "wheat" was discussed from a great variety of standpoints.

At the live-stock session, Prof. J. Wilson traced the history of the Aberdeen-Angus breed, illustrating its evolution with lantern views. Prof. W. Somerville, of Oxford, presented striking results in "Manning for Mutton," the application of 10 cwt. basic slag per acre to a pasture having increased the yield of mutton per acre by 80 lbs. annually, and the profits by 22s. per acre per annum over a period of ten years.

Dr. J. G. Rutherford, Dominion Veterinary Director-General and Live-stock Commissioner, discussed "Some Economic Aspects of the Western Cattle Trade," advocating the development of a chilled meat trade in preference to the present system of exporting on the hoof.

DANISH METHODS OF CATTLE IMPROVEMENT.

But perhaps the contribution that will prove most suggestive to our stockmen was that of Staats Consulente Morkeberg, of Denmark, describing Danish methods of cattle improvement, which have resulted in raising the average yield of Danish cows from 80 lbs. of butter in 1864 to 220 lbs. in 1908. Methods yielding such a remarkable result are certainly worth studying. One feature of the method is the granting of prizes for collections of cows bred by the exhibitor. No prizes for individual cows, it seems, have been given since 1870. Prizes are also offered for aged bulls and their offspring, no prizes being granted to bulls over five unless their offspring, judged before the show, have been found satisfactory. In awarding prizes for both cows and bulls, the pedigree is taken into consideration, with particular reference to milk production. The official recognition of the best herds as "Breeding Centers" is another special Danish feature; a careful two years' investigation of the milk performance of the herd being conducted before it receives this official recognition. Subsidized breeders' associations are formed for the purchase of good bulls, and a control union of cow-testing associations employ skilled assistants to conduct tests of the yield of milk and milk-fat, and the consumption of fodder of each individual cow of their herds. At present there are 1,300 cattle-breeders' associations, owning 1,500 bulls, and 479 control unions, with 10,925 members, 500 assistants, and 187,345 cows—over 17 per cent. of the total number of cows in the kingdom. The State subsidies are £8 per bull, and £14 per control union per annum.

WHEAT-GROWERS' PROBLEMS.

The discussion on soil fertility made clear that the soils of the Western plains offer scientific and agricultural problems quite distinct from those of more humid climates. In the discussion on wheat, it appeared that there are many problems still unsolved relating to the breadmaking qualities of this cereal. Perhaps the most valuable feature of this discussion was the emphasis laid on the importance of intelligent seed selection, and the breeding of new varieties of wheat specially suited to the climates of the regions in which they are to be grown. The work of our Federal and educational experimental farms in this direction is of the greatest importance and deserves the most cordial support of the whole agricultural community.

SPRAYING TO DESTROY WEEDS.

A paper by Prof. Henry L. Bolley, of the North Dakota Agricultural College, on the spraying of crops for the destruction of weeds, read before the Botany Section, is of great interest to grain-growers. It appears that the process of spraying with the sulphates of copper and iron is now upon a commercial basis in the Northwestern States, and that where it is properly applied not only are such weeds as mustard, Canada thistle, dandelion and ragweed destroyed, but the crop is left not merely uninjured, but capable of producing much more than it ordinarily would. Indeed, certain field crops often yield grain in proportions which would not seem to be warranted because of weed destruction alone. The following crops may be sprayed: Wheat, oats, barley, rye, timothy, bluegrass, flax, corn and millet. Weeds closely related botanically to the crops cannot, of course, be destroyed, but in general herbaceous annuals, which do not shed water solutions, may be destroyed and herbaceous perennials controlled. Whether iron sulphate, copper sulphate or common salt is to be used depends upon the crop to be treated and the weed to be destroyed, as well as upon the relative costs of the chemical.

Agriculture in Canada occupies a more commanding position in relation to other industries than it does in the great Republic to the south of us, yet in the United States it is undoubtedly the basis of the Nation's welfare. United States Secretary of Agriculture Wilson estimates the total value of all crops in that country this year at close to eight billions of dollars. Such a sum is too vast for comprehension. It is four times the product of all the mines, including the precious metals and mineral oils. The value of the corn crop alone is enormous. Last year it amounted to \$1,615,000,000, which, it is stated, would pay interest on the public debt, pay for the Panama Canal, and would construct fifty ships of the breadbasket variety.

As well for a nation to attempt to control the currents of sea and air as to endeavor to secure by force the permanent peace of the world. The best guarantee of universal peace is for each nation to attend strictly to its own business. Let Canada set the example.