

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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THE DOMINION.

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articles would call for \$1,500 to \$2,000. Separators and other dairy utensils would doubtless be loaned by the manufacturers for the work in the dairy department, as is done in similar institutions. The total initial expenditure can be put at \$50,000 to \$60,000.

THE TEACHERS REQUIRED, THEIR WORK AND COST.

The essentials to be observed in manning such an institution is, provide men thoroughly trained and experienced in the work they have to teach, men with energy and lots of enthusiasm for the future of agriculture. While the old-established colleges have large staffs, such will not be necessary or advisable at the start. Four professors and three instructors would be ample until the attendance became very large, one of the professors also acting as head of the institution, with the work of administration in addition to his teaching duties. The staff might be constituted as follows:

1. Professor of Agriculture, whose duties would be to give instruction in the principles of soil cultivation, the growing of farm crops, cereals and grasses, drainage, silos, etc., together with such instruction as is deemed necessary in the construction and draft of implements, the application of chemistry to farm conditions, the judging of grains, roadmaking, and weather forecasts.

2. Professor of Horticulture, who would take up the teaching of plant life, small fruit culture, gardening, forestry, the suppression of weeds, the

prevention of rust, smut and other fungous diseases of plants, judging of roots and vegetables. He might, in addition, supervise Provincial weed inspection.

3. The Professor of Animal Husbandry would teach the principles of breeding, instruct the students in the characteristics of the different breeds of live stock, besides drilling them in the judging of animals for draft purposes, the block, or the dairy. The feeding of animals, elementary bacteriology and veterinary science would fill out his College work. In addition, the experiments with live stock would be under his control.

4. The Professor of Dairying would take up that science in all its branches, give the necessary lectures and practical work, instructing the students in testing with the Babcock, oil and acid tests, churning, and the handling of cream separators, together with elementary dairy chemistry and bacteriology, conduct experiments and look after the travelling dairy and supervise factory inspection.

The services of the professors would be available for Institute work. The salaries for such men would be about \$1,500 each a year to start with. Cheap men or men lacking in training or energy would be dear at any price. The three instructors needed would be: One to give instruction in farm bookkeeping, the principles of political economy, and parliamentary practice, in addition to teaching the drawing of plans of farm buildings. Such a man could also act as bookkeeper and secretary of the College, and could be got for \$800 to \$1,000 a year. A carpenter and blacksmith would be needed to give instruction during the school term. Each could be got for \$75 a month, say \$750 for the course. Three men would be necessary to attend to the live stock, each at \$40 a month. Wear and tear, incidentals, printing and advertising, would mean a yearly outlay of \$15,000 for running expenses.

As the Agricultural College is an educational institution similar to other professional institutions, it would not be expected to pay any dividends in cash for the money invested. The benefit to the agricultural interests, and therefore to the country at large, would, however, be inestimable. The course for which such an outlay and staff are described should be one of 14 to 16 weeks, running during December, January, February and March, thus not interfering with the farm work, and permitting the farm laborer who desires to render himself more accomplished, and therefore more valuable to his employer, the maximum period in which to earn wages.

Opportunities Opening.

Prof. John Craig, of Cornell University, N. Y., formerly Horticulturist at the Central Experimental Farm, Ottawa, says he has been greatly impressed the last few months by the demand for young men of education, practical experience and energy in the agricultural labor market. Requests for foremen, superintendents, experimenters and teachers at the present time greatly exceed the supply. Is not this a hopeful sign? It is to be traced, it seems, to an improved sentiment in the agricultural community, the changed attitude of capitalists to agricultural enterprises, and to the appreciation on the part of the business man of the fact that a trained foreman in agriculture, as in many other industries, is essential to successful farming. Another feature worthy of note, and a very important one, is the increase in the number of agricultural schools. Not only are some of the academies and high schools considering the question of adding agriculture to their courses, but agricultural high schools are being equipped in many parts of the country. There is also a much keener appreciation of and demand for good agricultural periodicals and books than ever before.

Stands the Test of Time.

I have been a subscriber to the "Farmer's Advocate" since its inception, and can truly say it has been worth ten times the amount of the annual subscription in the useful hints I have picked up from time to time from it. I have got a good many of my friends to subscribe from time to time, and will continue to advocate its cause as long as it continues the first-class paper it has been all along. I have got several valuable pictures and books in my possession now, got for prize essays written years ago for its pages, and hope to continue to read it while I live. It is doing a splendid work for the farmers of Canada. Long may you continue to prosper.

JAMES ANDERSON.

Wellington, Co., Ont., July 1901.

STOCK.

Judging Sheep.

An onlooker observing the work of judging breeding sheep at the fairs is sometimes led by the actions of the judges to question whether too much importance is not often attached to what is known as a good-handling back, without sufficient reference to the general appearance, character and type of the animals. A level back, well covered with firm flesh, other things being equal or nearly so, is certainly a desirable quality, but does not such covering depend largely upon condition, and the art of feeding, and is it proper to judge animals intended for breeding purposes mainly by the same standard as in a fat-stock show, where the animals are supposed to be fitted for the butcher's block? Watching the average judge at his work, the vigorous gripping and careful feeling, one is apt to get the impression that the result of his inspection depends almost entirely upon the handling, that eyes are practically an unnecessary accompaniment, and that the man might about as well be blindfolded as far as his rating of the competing animals is concerned. It is true that in sheep the art of the shearer may hide defects that can only be discovered by handling; but is it not well first to note the general appearance from the standpoint of a breeder, as to style, type, freshness, vigor, quality of fleece and bone, and the way the animal stands on his legs, before going into the more careful handling? We have in mind a case at a show this year, in one of the long-wool classes, where a ram was given a place in the prize list apparently for no other reason than that his backbone was better covered than that of others that were left out, and that were decidedly more uniform in type with the first and second prize sheep, and vastly stronger in masculine character, in bone, fleece, and the general indications of usefulness as a sire than the weak-headed, fine-boned, fat-backed winner. In another case, at the same show, the two judges differed in opinion as to the merits of two lambs, one favoring a big, coarse lamb, lacking in type and evenness of fleece, but fat and handling well on the back; the other a medium-sized lamb, of attractive style and type, with even fleece of good quality, and in good condition, but not fat. The referee who decided in favor of the big lamb gave as his reason a better handling back and a stronger "dock." The tail having been cut off a few inches further from the rump than in the other case, and the lamb being fat, would account for the latter virtue, but it was not a fat-stock show, and yet the man evidently looked at the case only from that standpoint and judged only by that standard. Handling, we admit, is an important point in judging, but it is possible to make a hobby of it and to forget others quite as essential, as was evidenced at a prominent show this fall in one of the cattle classes, where an excellent breeding cow, forward in calf, was turned down because it was considered by the judge that her flesh lacked firmness in the handling, but she was not competing as a butcher's beast. What is needed, it would seem, is a judicial summing up of all the evidence from the view-point of the breeder and of usefulness for breeding purposes.

Canadian Jersey Cattle.

In the "Farmer's Advocate" I see a good report of the Canadian cattle at the Pan-American, and I believe that, put all the herds on pasture, they would beat the lot.

About the time the Canadian Herdbook was started by Dr. Couture, of Quebec, parties interested in the Jersey and Canadian cattle started a herdbook of Canadian Jersey cattle. They were a cross of a registered American Jersey bull and a pure-bred Canadian cow. I registered the first lot in 1893, and have kept this breed for dairy purposes.

They are a tough, hardy breed, and I think will show a higher test in butter-fat than the American Jersey. My average test for the season, last year, was 5.4, at the butter factory; the testing being done by the Inspector for Bromo Co., Mr. Wherry, of Knowlton; testing 5.6 in July; highest test in November, 6.2. About one-third grades, twenty-four cows in the herd; getting over \$1 per 100 lbs. for milk in July, and \$1.36½ per 100 lbs. in December.

They are not a beef breed. It takes a good three-year-old heifer to dress 475 lbs. Last fall I bought a Shorthorn bull to use with some grade cattle for beef; but intend to keep my Canadian Jerseys pure, for dairy purposes.

I keep from 50 to 60 head of cattle. Feed roots in winter. I had about 2,500 bushels last year. Built my root cellar of stone, side of my barn bridge, 12 feet high. Put my granary on wall. Back cart into the granary and dump my roots in cellar. I think I like my plan better than having it under driveway, arched over, as was suggested in the "Advocate" some time ago. Hay crop here was very heavy; other crops good, only potatoes, which will be a light crop.

Province Quebec.

L. R. WHITMAN.

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