

English managing director whereby he endeavored to finance the undertaking by paying out money only when he was forced to do so. Mr. Craig follows this up with some interesting experiences of life on the prairie and in the Rockies. Persons interested in ranching in the West will be entertained and profited by reading Mr. Craig's book, "Ranching with Lords and Immigrants."

Eastern Ontario Fairs

Mr. John Campbell, who acted as judge in beef cattle and sheep at a number of fairs in Ottawa Valley district, reports as follows:

"In summing up the work done in the circuit a few thoughts come to mind, and one is that successful fairs can be held without horse racing. Another is that Eastern Ontario farmers are missing the most profitable source of income on the farm, in being prejudiced against sheep raising, and they do not realize it. A section of country that can show such excellent grade lambs, fit for any market, and that year after year, has a possibility of profit within its doors that should not be overlooked. The idea is prevalent that sheep are hurtful to the dairy cow, in spoiling the pastures. My firm opinion is that, as there is a place in every barnyard and a profitable place at that, for fowl, which pick up much that would be otherwise lost, so, on a large majority of the farms east, a flock of sheep, properly managed, will add more income at less cost than any other industry. Again, the beef making cattle are not given a fair chance as a rule in Eastern Ontario. If beef cattle were given the same care and attention as the dairy cow gets I question if, in ten years, beef making would not crowd out dairying to a large extent."

Select Only Sound Breeding Mares

Very often on the farm a mare, when she is unfitted by accident or otherwise, for heavy work, is used for breeding purposes. No greater mistake could be made. Very often a mare after she has developed a bad case of the "heaves" is used for this purpose. Though heaves sometimes come on suddenly, following the eating of dusty hay or coarse fodder when warm, or sudden pulling or straining, the trouble is nevertheless a disease and disease leaves conditions which are apt to impair the breeding utility of the animal. It is a true axiom in breeding that abnormalities due to disease are transmissible either in the exact form or as a susceptibility to the same disease. An American veterinarian, dealing with this subject, says:

"There are hosts of unsound horses in the country, and they depreciate the market for all horses; why breed more of this damaging sort? Yet farmers go on breeding to the halt, the nained and the blind, and kick when prices are low and improvement in horse type is hard to achieve. It is their own fault and they reap the just rewards of their culpable foolishness. The stallion is not always to blame for poor colts. The mare is an equal factor in the equation, and while it is absolutely necessary to select sound stallions, it is just as necessary to see to it that the mares with which he is mated are also sound. Make it a principle never to mate an unsound horse no matter what his ailment may be, and stock will improve rapidly, and many common ailments and blemishes soon die out."

Rape: Its Value, Use and Culture

Every year the question of cheap summer forage becomes more and more pressing. To the farmer whose pasture lands are of limited area the use of some

crop capable of producing the maximum yield of the most nutritious forage is imperative. Various crops have been tried, and it is not my aim to condemn any, but rather to bring one valuable plant to your consideration and solicit it for a trial.

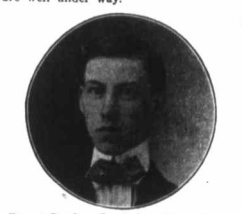
The crop I mean is *rape*. It ranks as one of the most nutritious of our forage plants. It is remarkable not only for the valuable character of the food it supplies but also for the large amount that may be produced on a given area. It will yield two or three cuttings in the season and the amount harvested off an acre may vary from 25 to 35 tons in the summer.

The quality of the food produced is most excellent. Analysis shows it to be richer than clover in flesh-forming material. Feeding operations prove it to be particularly well suited for beef, cattle, young stock, sheep, lambs, and swine. It may be used as a pasture, and this fact renders it all the more valuable to the busy farmer.

Soil and Season.—It will grow on almost any kind of soil. It will give a fair return on poor land. It will yield a heavy crop on average soil. It will produce an immense amount of food on very rich land. It does well on dry soil, it thrives and grows apace on moist places. It will grow on good land, no matter how dry the season, if sown in rows and cultivated. It will flourish in most rainy weather if water does not stand in the field. Stubble or fallow should be used; sod is not suitable.

Seeding and Cultivation.—If intended for pasture, it is usually best to sow broadcast at the rate of 3 lbs. per acre.

The exception is when pigs are to be pastured, for experience has shown us that it is better under such conditions to sow in rows 21 to 24 inches apart. The space between the rows may be cultivated once or twice till the plants are well under way.



Ernest Gordon, Stapledon, Ont., winner of 3rd prize in FARMING WORLD Weed Competition.

The pigs may usually be turned in 5 or 6 weeks after seeding, and an acre will carry from 25 to 40 during the season. It is better to divide the field into two parts and change pastures at intervals. It will be found necessary to limit the meal ration if the most profitable results are to be looked for.

Steers do well on it at any time, but it is probably of the greatest value for beef production in the autumn. Lambs and sheep like it and do well on it at any season, but they must not be confined to rape exclusively, and care must be exercised to prevent their bloating on it. They should not be turned in when hungry, nor when the rape is wet with rain or dew. The same precaution applies to young cattle.

J. H. GRISDALE,
Central Experimental Farm, Ottawa.

The Feeding Value of Roots

Our experience shows that roots may vary greatly according to the character of the season; for instance, we found,

last year, that there was a great improvement in the quality of roots over those of the year previous. This may be in part due to the character of the seed, because there is no doubt that the breeding of roots to a high percentage of dry matter, sugar and protein is quite possible and no doubt, is being prosecuted by skillful seed-growers. It may be also due in part to the character of the soil; the richer the soil, in some respects, the better the roots, though an excess of soil nitrogen tends to a reduced sugar-content. The improvement we noticed last year, compared with the year before, is in increased percentages of dry matter and of sugar. According to our laboratory data, the roots of 1902 should have a feeding value almost 50 per cent. higher than those of 1901. That improvement is, I think, due largely to the favourable character of the weather in the autumn. I think that a dry, warm September, for instance, is conducive to a high sugar content, and sugar is undoubtedly the chief element of feeding value in these roots. We had such an autumn last year. Mangels contain usually in the neighborhood of 10 per cent. of dry matter, and last year we obtained between 12.77 per cent. and 13.90 per cent. dry matter. Again, by reference to the data you will notice that the "Gate Post" mangels contained over 9 per cent. sugar last year, while the season before it contained 4 per cent. This is only one instance; all the roots showed higher percentages. We shall continue these investigations, because it is desirable to find out, if we can, the factors that control the composition of roots.—Frank T. Shutt, Chemist, Dominion Experimental Farm.

The Ottawa Fair

Notwithstanding one bad day the Central Canada fair at Ottawa has a surplus of \$412. Had it not been for that wet Thursday when but few people attended, the surplus would have been increased to over seven thousand dollars. The total receipts were \$57,699.69 and the total expenditure \$56,774.87, leaving a balance of \$412 as stated above. The amount spent in prizes was \$8,272.60, or an increase of \$821.14 over the previous season. Special attractions cost \$8,142.42, or an increase of \$784.13 over the previous year.

Toronto Industrial

At a regular meeting of the Industrial Fair Association held a week ago it was decided to hold the next exhibition on August 20th to September 10th, 1904. A number of changes in the different departments for next year were suggested. These were referred to the executive committee for consideration. The Association has received the grant of \$10,000 from the Ontario Government towards the cost of the dairy building and \$25,000 of the \$50,000 grant from the Dominion Government. A detailed statement of the year's work will be furnished shortly.

Coming Events

Ontario Fruit Growers' Convention, Leamington, Ont., Nov. 24-26, 1903.

Ontario Experimental Union, O.A.C., Guelph, Dec. 7 and 8, 1903.

Provincial Winter Fair, Guelph, Dec. 7-11, 1903.

Maritime Winter Fair, Amherst, N. S., Dec. 15-18, 1903.

Eastern Ontario Dairywomen's Convention, Belleville, January 6-8, 1904.

Western Ontario Dairywomen's Convention, St. Thomas, January 12-14, 1904.