

An Experience in Cow Feeding.

To the Editor "Farmer's Advocate":

Sir,—There is a by-product of oatmeal mills, known as oat bran, which is largely oat hulls, with a small proportion of oatmeal and mill dust intermixed. There is a keen demand for it on the part of milkmen. Two years ago I fed considerable to some winter milkers, but nearly lost two cows by impaction of the manures through its use. I was then feeding it, as I was advised to do, wet, soaked from one meal to another. Last winter I again fed it to milk cows, but fed it dry, and had no trouble. The theory on which the change was made was that when fed wet it might be swallowed at once to the third stomach, and therefore would not be re-chewed. Feeding it dry, I reasoned, it would more likely go into the first stomach (the paunch) and be thrown up and re-chewed in the cud. This winter I am again feeding it, and feeding it dry, but have had trouble. One of the cows got along with it all right, but the other two showed signs of indigestion, though getting a smaller feed of it than the other one. Their droppings were too thin, showing signs of scours, and from what I could observe there seemed to be failure to remasticate. I did not want another serious sickness in my herd, as that means a veterinary's bill, besides falling away in milk and risk of worse, so tried another change. I had been feeding the oat bran at noon only, and in large pails, so that it could be given at the same time as hay. I simply mixed the feed with short straw—straw that had been cut as threshed, and would average about four inches in length—putting in the pail alternately a layer of straw and oat bran, and using in bulk not more than one-third straw. No other change was made. They were fed in addition as before, unhusked cornstalks, roots and hay, and all fed at the same time as previously. The design was, of course, to inveigle the animals into swallowing the food into the right place first. The result was immediate, and to me very satisfactory. The next day after the change was made the droppings were in normal condition. Since then I have ventured to give larger feeds of the stuff, with no harmful results, and a decided increase in the flow of milk. Having had considerable experience in feeding, I should have known all along what I have lately learned, but some of your readers may not be any more skilful in making knowledge fit into practice, and may profit by this record.

Middlesex Co., Ont.

T. BATY.

GARDEN AND ORCHARD.

Apples and Plums for Northern Ontario.

Will you please tell us the best varieties of apples and plums suitable to grow in the Rainy River district?

C. H. GADD.

New Ontario.

We have no definite information yet as to just what varieties of fruit will succeed in the Rainy River district. Judging, however, from the results obtained at our most northern fruit experiment stations in Ontario, I would recommend the following for trial as most likely to succeed in your northern district:

Apples—Yellow Transparent, Duchess, Charlamoff, Wealthy, McMahon White, Longfield, McIntosh, Milwaukee, Scott's Winter; also Whitney and Transcendent crabs. These cover the season from early to late.

The plums most likely to succeed in your locality would be the improved native varieties, most of which are extremely hardy. I would recommend the following as a good collection to cover the season from early to late: Aitkin, Cheney, Bixby, Mankato, Wolf, Hawk-eye, and Stoddard.

This class of plums has not been propagated extensively by our Ontario nurserymen, although some varieties may be found on their lists. W. F. Kerr, Denton, Maryland, has given a great deal of attention to their propagation, and can furnish any or all of those named. It is important that for your district the trees of both apple and plum be grown with low heads, in order to avoid injury from sunscald. It would be well, therefore, to procure one or two year-old trees from the nursery, and start the heads not more than a foot from the ground. The regular-grown nursery trees usually have a head formed in the nursery, with four or five feet of trunk, which may be all right in a good fruit section, but it is not at all desirable for the north. Mr. E. D. Smith, Winona, Ont., could, no doubt, furnish you with young trees of all the apples, and probably with most of the plums named.

Ontario Agricultural College.

H. L. HUTT.

The Girls Pleased.

I received the wrist-bag yesterday, and am very much pleased with it. Wishing you and your paper success.

EDNA McGRATH.

Grenville, Ont.

I received your lovely premium. I think it is a splendid Bible. I am sure it is worth \$1.50 without anything else. I hope you will get lots of orders for your "Farmer's Advocate and Home Magazine," for it is a splendid and useful journal.

MAGGIE RUMNEY.

Victoria, Ont.

The Work of the Ontario Fruit Experiment Stations.

A BRIEF OUTLINE BY THE SECRETARY, LINUS WOOLVERTON, M. A.

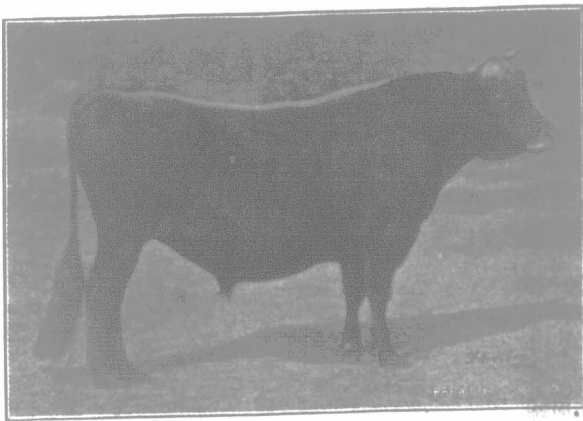
Some important changes in the personnel of the Board of Control of the Fruit Stations have recently come about, and during the past year some plans of action have been adopted which will soon prove of great practical benefit to the fruit-growers of Ontario. Among the changes, we mention, with regret, the loss of our chairman, Dr. James Mills, who, as President of the



Linus Woolverton, M. A.

Secretary of the Ontario Fruit Experiment Stations.

Ontario Agricultural College, occupied the position by virtue of that office, and who took the deepest interest in every detail of our work. His appointment on the Railway Commission, however, will enable him still to serve the interests of the fruit-grower. In his successor, Mr. G. C. Creelman, B. S. A., we have a gentleman of wonderful executive ability, who is in the closest touch with the agricultural interests of our Province. Another change is the addition to our membership of Mr. P. W. Hodgetts, who, as Secretary of the Ontario Fruit-growers' Association, is also an officer member. He is a young man of excellent qualifications, having taken a special course in horticulture at the Ontario Agricultural College. And, lastly, if he may explain his own position, the writer, being relieved of much other work, is now prepared to give his whole attention to supervising the work of the stations. Previously, he was attempting to fill too many offices to be able to do justice to any one of them; having been Secretary of the Ontario Fruit-growers' Association; Editor and Business Manager of the Canadian Horticulturist; Secre-



Merry Maiden's Third Son.

Grand champion Jersey bull at the World's Fair, St. Louis. Exhibited by H. C. Taylor, Wisconsin.

tary of the Ontario Fruit Experimental Stations, besides managing the largest experimental collection of fruits in Ontario for purposes of study and description in connection with the work undertaken by the Board to be entitled "Fruits of Ontario."

Much to his relief and encouragement, the Minister of Agriculture made it possible for him to resign the two first of these offices, the first in favor of Mr. P. W. Hodgetts; the second in favor of Mr. H. B. Cowan, both of whom are admirably adapted to their respective positions. This enables the writer to give much time to the superintendence of the work of each station in carrying out the directions of the Board of Control, and

more especially to the collation of data from all sections of the Province for his annual report to the Department of Agriculture.

THE FRUITS OF ONTARIO.

This is perhaps the most important work upon which the Secretary has been engaged, being a technical descriptions of the various fruits grown in our Province, accompanied by full-size, original photogravures of each. There are similar works in other countries, or, for example, Downing's Fruits and Fruit Trees of America; Hogg's Fruits of Great Britain, and Leroy's Dictionnaire de Pomologie of France. But none of these are a guide to Ontario fruit-growers, because of great difference in conditions; the kinds which are most desirable in those countries are often quite worthless in the Province of Ontario. The Department of Agriculture propose to publish in the autumn of 1905 an edition of this work, which will be as comprehensive as possible, and will include all that shall have been completed up to that time.

THE WORK OF THE FRUIT EXPERIMENT STATIONS.

The following tabular statement will show the readers of the "Farmer's Advocate" the number of acres occupied by each experimenter in experimental work; the number of varieties under test, and the fruits to which he has thus far been asked to devote his especial attention:

Name of Station.	Name of Experimenter.	No. of Varieties.	No. of Acres.	Specialty.
Westworth	M. Pettit, Winona.	200	8	Grapes.
Bay of Quinte	W. H. Dempsey, Trenton.	200	5	Apples.
Southwestern	W. W. Hillborn, Leamington	200*	5	Peaches
Burlington	A. W. Peart, Burlington	276	2 1/2	Currants and Blackberries.
Georgian Bay	John Mitchell, Clarksburg	313	5	Plums.
Simcoe	G. C. Caston, Craighurst	220	5	Hardy Apples and Hardy Cherries.
Lake Huron	A. E. Sherrington, Walkerton	200	4	Raspberries.
St. Lawrence	Harold Jones, Maitland	200	5	Hardy Plums and Hardy Pears.
Maplehurst	L. Woolverton, Grimsby	700	10	General Collection.
Strawberry Station	E. B. Stevenson, Guelph	150	1	Strawberries.
Algoma	Chas. Young, Richard's Landing	180	3	Hardy Fruits.
Wabigoon	A. E. Annis, Dryden	180	3	Hardy Fruits.
New Ontario	++			

* Mr. Hillborn's collection of varieties for test was destroyed by frost in the unusually severe winter of 1903-1904.

++ The Secretary's fruit farm, on which about ten acres has been devoted to collections of fruit, for study in preparing the "Fruits of Ontario."

++ Collections of hardy fruits have been sent to several settlers about New Liskeard for testing.

The above table shows a total of 2,789 varieties of fruits, occupying over 48 acres of land, attended to by 12 different managers, each a specialist in the particular fruit placed under his charge, and all operated for the modest sum allowed for their work of about \$1,800, or an average of \$150 each.

Were it not that these men love the work, and are animated by a special interest in the prosperity of the fruit industry, the excellent results already obtained would have cost the country a much greater expenditure of money.

WORK DONE IN 1904.

In addition to the vast amount of detailed work accomplished by the various experimenters, and which will appear in their annual reports to the Board, we may mention a few things done or undertaken during the past year by order of the Board of Control, as follows:

1. The educational exhibit at the Winter Fruit Show, Toronto, in November, of varieties of fruits tested at the stations. These were under the superintendence of the Secretary, and were divided into two classes: (a) those desirable for commercial planting, and (b) those undesirable.

2. The publication in the coming report of lists of varieties tested at the various stations, and found to be unworthy of further cultivation in