

THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

PUBLISHED BY
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, ONT., and WINNIPEG, MAN.

The Farmer's Advocate is published on the fifth and twentieth of each month.

It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

Terms of Subscription—\$1.00 per year *in advance*; \$1.25 if in arrears; sample copy free. European subscription, 6s. or \$1.50. New subscriptions can commence with any month.

Advertising Rates—Single insertion, 15 cents per line. Contract rates furnished on application.

Discontinuances—Remember that the publisher must be notified by letter or post card when a subscriber wishes his paper stopped. All arrears must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given.

The Advocate is sent to subscribers until an explicit order is received for its discontinuance. All payments of arrears must be made as required by law.

The Law is, that all subscribers to newspapers are held responsible until all arrears are paid, and their paper ordered to be discontinued.

Remittances should be made direct to this office, either by Registered Letter or Money Order, which will be at our risk. When made otherwise we cannot be responsible.

Always give the Name of the Post Office to which your paper is sent. Your name cannot be found on our books unless this is done.

The Date on your Label shows to what time your subscription is paid.

Subscribers failing to receive their paper promptly and regularly will confer a favor by reporting the fact at once.

We Invite Farmers to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve the ADVOCATE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

Replies to circulars and letters of enquiry sent from this office will not be paid for as provided above.

All communications in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—
THE FARMER'S ADVOCATE, or
THE WILLIAM WELD CO.,
WINNIPEG, MAN.

CONTENTS.

41—Illustration. 42—Editorial Notes; Mr. Coxworth's Berkshire; A Farmer's Ideas on the proposed Winnipeg Elevator. 43—Our Public Roads; Manitoba Cattle Breeders and the World's Fair; Timely Notes for February—No. 1. 44—Answers to Veterinary Questions; Care and Treatment of Jersey Cattle; How the Jersey Strikes Our Post; How to Feed Our Horses. 45—Our Monthly Prize Essays; Our Scottish Letter. 46—Chatty Letter; How I Feed Dairy Cows. 47—Legal Questions; Indian Head Experimental Farm Test; Working for Fun. 48—Injurious Insects—No. 11; First Prize Essay—Breeding, Feeding and Care of Hogs for Profit. 49—Requirements of our Home Trade; Economy in the Production of Milk. 53—Manitoba Dairymen's Association; Mixed Farming. FAMILY CIRCLE:—50. QUIET HOUR:—50. MINNIE MAY'S DEPARTMENT:—51. UNCLE TOM'S DEPARTMENT:—51 and 52. STOCK GOSSIP:—55. NOTICES:—53 and 56. ADVERTISEMENTS:—53 to 60.

Our Monthly Prize Essays.

CONDITIONS OF COMPETITION.

- 1.—No award will be made unless one essay at least comes up to the standard for publication.
 - 2.—The essays will be judged by the ideas, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling.
 - 3.—Should any of the other essays contain valuable matter, not fully covered by the one awarded the first prize, or should any present different views of the same topic, and we consider such views meritorious, we will publish such essays in full, or extracts from them as we may deem best, and allow the writer ten cents per inch (one dollar per column) printed matter for as much of such articles as we publish. By this rule each writer who sends us valuable matter will receive remuneration for his labor, whether he be the winner of the first prize or not.
 - 4.—We invite farmers to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch (one dollar per column) printed matter. Criticisms of Articles, Suggestions How to Improve the ADVOCATE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.
 - 5.—Replies to circulars and letters of enquiry sent from this office will not be paid for as provided by rule 4.
 - 6.—No anonymous communications or enquiries will receive attention.
 - 7.—Letters intended for publication should be written on one side of the paper only.
- A prize of \$5 will be given for the best essay on the method by which the Manitoba and Northwest farmer may better his condition and home life. Essays to be in this office by February 15th.
- A prize of \$5 will be given for the best essay on the reasons why Arbor Day should be observed at Manitoba and the Northwest public schools, with suggestions for the programme of the day. Essay to be in this office by March 15th.

Our Scottish Letter.

BRITISH BREEDS OF DAIRY CATTLE—THE SHORTHORN AND AYRSHIRE.

If we were called on for an answer to the question, What is the best method of relieving the pressure which weighs on British agriculture—what class of products affords the most likely method of making the capital invested in farming remunerative? there would, I think, be only one answer possible—at least in so far as the West of Scotland is concerned. That answer would be: Dairy-farming and the production of the best and purest quality of fresh milk. It needs no proof that there is no more natural food than milk, because, of all goods, it contains the best balanced proportions of flesh-forming and heat-producing elements. In its primary form of sweet milk it is the ideal food, and in its secondary form of cheese, when coupled with wheatbread, the essential balance of flesh-forming and heat-producing properties is maintained. It has been computed by competent authorities that 1 lb. of cheese + 1/2 lb. of bread contains a higher sum of good properties than 2 lbs. of flesh meat; and that the necessary relative percentages of albuminoids, or flesh-formers, to fat and heat-producers is better preserved in the bread and cheese than in the meat, while the cost of the former would only be about half the cost of the latter. Primitive man lived on milk, and those whose habits are simple and unsophisticated find in it as food a satisfaction which is impossible to those who have long acquired a relish for flesh meat. There cannot be much doubt that the consumption of meat is in many cases excessive, and to some extent this may be attributed to the fact that up to within a comparatively recent period it was not possible to secure a pure milk supply in the great centres of population. The fact had been forgotten that, while pure milk could not be surpassed as a wholesome food, impure milk as a deleterious substance is difficult to beat. It is the undoubted interest of the milk-producer to send it out absolutely pure. In proportion as the great consuming population have the confidence that it is so will the demand for the product of the dairy increase.

It is not the purpose of this paper to discuss the general question of our milk supply and its importance for farmers, but to direct attention to one of the chief factors in successful dairy-farming, namely, the character of the source from which the milk is drawn. It is a trite saying that it will cost as much to keep a bad or unprofitable cow as a good one, and cattle that are not intrinsically worthless may be wholly so for dairy purposes. The cow to the dairy farmer is a milk-producing machine. Like all other kinds of machinery, she can only produce something beyond herself after her own wants have been supplied. As Professor Sheldon puts it: She is like a steam boiler. The boiler cannot produce any steam until it has itself first been heated; and the most profitable boiler is that which heats most rapidly, because it is that which will generate steam in the shortest time. The most valuable dairy cow is she that requires the smallest proportion of the food she consumes for the upkeep of her own frame, and devotes the larger portion to the production of milk. There are many breeds of cattle in Great Britain and Ireland, and all of them are, in a sense, dairy cattle; all of them give milk, be the quantity less or greater, and the quality better or worse. But there are, in our opinion, but five breeds of distinctly dairy cattle—that is, cattle whose chief value consists in their dairy properties, and which would not be bred but for these. The breeds that come under this category are the Ayrshire, the Jersey, the Guernsey, the Red Polled, and the Kerry. The omission of the Shorthorn from this list may at first seem strange, for Shorthorn cows have made milking records; but it will be observed that the cosmopolitan breed will not come under our definition of a dairy breed, because, as a whole, the breed is not reared because of its milking properties. If there had been no Durham ox, we may safely conclude that there would have been no improved Shorthorn breed. If there were no laurels to be won at Smithfield in December, the famous Teeswater breed would have remained in its primitive glory as a dairy breed, but in that form it could not have been the Shorthorn as we know it. I am the more anxious to emphasize this distinction, because I think it can be reasonably argued that one factor in the composition of the modern Ayrshire was the Shorthorn, but not the improved Shorthorn of the Collings and the Booths and the Bates.

A visit to a lovely vale on the borders of Westmoreland and Cumberland, and not far from the confines of Durham, made us acquainted with a beautiful race of dairy cattle—Shorthorns—but not the Shorthorns of Coates' Herd Book. They were a magnificent race, the remains of a splendid stock of dairy cattle to be found in the dales and on the fells of the ancient province of Northumbria; of kindred clearly to the mammoth Shorthorn of the show ring, but of more ancient race, and in all likelihood more like to his ancestors than he is himself. This is the breed or class known as unpedigreed Shorthorns, which in the main supplies the town dairies of Edinburgh, and the dairies conducted on the "soiling system" in the eastern counties. Some of them have more of the Shorthorn appearance than others—a result due to the more extended use of the modern Shorthorn in their production; but as we saw them in their native dale, collected by an enthusiastic lover of dairy cattle, who purchases them from the smaller dairy farmers in these uplands whenever opportunity offered, their resemblance

to the type of our larger-sized Ayrshires was very marked.

There can be little doubt that these Westmoreland cattle are the representatives of the celebrated Holderness breed of cattle—a tribe famed before the era of the modern Shorthorn, and specially famed for their milking powers. The gentleman in whose hands we saw the cattle keeps a daily record of their milking powers, and 40 lbs. per day is a usual average. The cattle are larger and heavier than the average Ayrshire, but they are of the same type, and have the characteristic dairy features of the west country breed. The Holderness breed, of which I believe these to be the remnant, had their habitat in the West Riding of Yorkshire, and are generally regarded as having much in common with the deep-milking breeds of Holland. As a breed they have been preserved from extinction in America under somewhat peculiar circumstances. During the first quarter of this century cattle of this class were imported into the State of New York, and Mr. Lewis L. Allen, the writer of a very interesting book on "American Cattle," was, about 1835, well acquainted with their characteristics. He describes them as cattle having a close resemblance to the unimproved Shorthorns, being chiefly dark red in color, with lined or white backs and bellies, and somewhat less in size than the modern Shorthorn. The cows were excellent milkers, and useful for the dairy. Mr. Allen lost sight of the breed for a number of years, when his attention was called to a herd of about thirty of them, owned by a Mr. Cole, in Madison Co., New York. This herd was founded in 1855 by purchase of a cow then in calf by a bull of the same breed from a farmer in Oneida Co. This cow produced a bull calf, which, when a yearling, was mated with his own dam. The fruit was a heifer calf, which, in the following year, along with her dam, was mated with the same bull, at once the brother, sire and son of one or other of the females. By continual breeding in this close fashion the Holderness race was resuscitated, and from this single cow hundreds of phenomenal milking herds to be found scattered over the State of New York are descended. My object in calling attention to this remarkable chapter in cattle-breeding is to point out that milking power is inherent in the old Northumbrian breed, and was intensified by the in-and-in breeding, which resulted in the formation of the modern Holderness breed of America. It was from the old Holderness that the Shorthorn was evolved, and so the Shorthorn is naturally a milking breed. Although not now entitled to rank as a dairy breed, there are in the breed dairy families with remarkable reputations as milking animals. The same gentleman who owns the Westmoreland dairy cows, to which reference has already been made, also owns a splendid herd of pedigree Shorthorns, in which the milking powers are greatly developed. One of his cows has a record of 9500 lbs. for ten months between calving, and another has an average record of 50 lbs. per day when grass is at its best, her lowest figure being 40 lbs. and her highest 60 lbs.

If a breed of cattle which, when history opens, was not specially famed for milking powers, can be shown to have been influenced by a foreign breed, with the result that it has taken rank as, on the whole, the most successful dairy breed of the world, it is not a wild conjecture that that alien cross was one in which the qualities of a dairy breed were strongly developed; and I think the facts already advanced go far to show that the dairy properties are inherent in the old Northumbrian or Holderness breed.

The testimony of unprejudiced witnesses is that the modern Ayrshire is, taken all in all, the most profitable dairy cow of the time in which we live. Mr. Allen, already quoted, is a Shorthorn fancier, and excusably eloquent in their praise. His testimony regarding Ayrshires is therefore all the more valuable. He acknowledges that the quantity of milk produced by them in America is not equal to their Scottish records, but, fairly enough, points out that this is due to the drier climate, and the extremes of cold in winter and heat in summer to which in America they are subject. "Nevertheless," he says, "their thirty-six years' trial in America has been successful. They are hardy, healthy, well fitted to our climate and pastures, and prove good milkers, both in the imported originals and their progeny. Their flow of milk is good in quantity and fair in quality." Another American writer, Mr. Henry Stewart, the author of the Dairyman's Annual, writing in 1888, says: "The Ayrshire has been greatly improved by careful selection, and is now a model dairy cow. Without depreciating any other breed of cows, she may easily take this position. She will not displace the Jersey in the fine butter dairy, nor the Dutch cow in the milk dairy, but she will fill the place of both of these in the cheese dairy; and while she will not compare with the latter in amount of milk product, she will greatly surpass the former. She is the farmer's cow." When we turn to English testimony we find it equally complimentary. Professor Sheldon, in his handbook, "The Farm and the Dairy," says: "As milk producers Ayrshires are very superior, though their milk is not specially rich like that of the Jerseys and Guernseys. Some Ayrshire cows have yielded as much as 1000 to 1200 gallons of milk in a year, and this yield, considered in relation to the size of the animal, is quite wonderful. Their milk seems to be specially adapted for cheesemaking purposes, being rich in casein; but I once had an Ayrshire cow that yielded for a time two pounds of butter per day, besides milk and cream used in