

Mr. Cook cites Prof Arnold as evidencing the good keeping qualities of the Holstein butter. What does Professor Arnold say of the Jerseys as cheese-makers? It has been contended that no one but myself and Professor Brown ever discovered their qualities in this respect, yet here is what Prof. Arnold says: "The business of the Jersey cow is emphatically butter-making; her milk, however, is rich in cheese matter, and contrary to the general belief, if I may judge from samples of cheese from Jersey milk which have been recently sent me, is capable of making as fine cheese as it does butter. It requires less milk to make a pound of cheese than it does of the milk of natives, about 8 of milk to 1 of cheese. It is a new feature worthy of note in the uses of this breed of cattle, that their milk can, without the waste of butter matter, be converted into a strictly fancy cheese, and as rich in fat as Stilton. Analysis of cheese from pure Jersey milk, recently made at Cornell University, has shown over 40 per cent. of fat."

Mr. Cook devotes considerable space to a report between a native and a Holstein, basing the profit on the sale of the milk. There is nothing in the report to show what quantity of fat and casein (or total solids) there was in the milk, and until that is given, no proper deduction can be drawn as to the value of the milk for cheese or butter, but it merely shows that a large quantity of fluid at considerable additional cost was given by the Holsteins.

I have given these quotations to show how easy it is to find clippings or extracts which favor one breed as opposed to the other, and I could quote an almost unlimited supply in favor of the Jersey. What I contend we require to arrive at the respective merit of the two breeds is competitive tests between the breeds conducted by disinterested parties.

For the past five years a series of experimental analyses have been conducted by that eminent specialist Dr. Aug Voelcker, under the auspices of the British Dairy Farmers' Association at their shows at Islington with the following results of solids, as it relates to these two breeds:

	Fat.	Total Solids.
Jerseys.....	4.26	13.6
Holsteins.....	2.97	11.8

or with the Holstein such a lacking in solids as would in many of the American cities under their laws be condemned as "watered milk," as would be the case under the analysis as made by Prof. Brown at the Agricultural College. A higher authority than Dr. Voelcker cannot be found in England or on the continent, and the result of his tests for five years of Holsteins, above cited, leave out Prof. Brown's analysis as to the total solids very closely. The Shorthorn in these tests made an average of within 2 lbs. of milk in 24 hours as compared with the Holsteins, while in fat the Shorthorns averaged 3.79, and in total solids 12.7 to 2.97 fat and 11.8 solids of Holsteins; yet Mr. Cook claims the Holsteins as the great general purpose cow. In these tests of five years duration at Islington, as also at London, Ont., when subjected to public test, the enormous yields of milk of Holsteins vanish, as the Holsteins average 46.99 lbs. of milk to the Shorthorn's 44.91 for the five years.

In Mr. H. M. Jenkin's much prized contribution in the *Royal Agricultural Society Journal* he cites (as special example of the milk-giving qualities of the Holsteins) a dairy of 500 cows at Høleby, Denmark, producing 9 quarts per head per day. Another of 36 cows averaged 648 gallons (2,592 quarts) in the year 1866, and 661 gallons (2,644 quarts) in 1872, and in a third case, 650 gallons (2,640 quarts) each per annum is given. This would be an average of about 660 gallons (2640 quarts) per annum. While this is remarkably good showing, it is far from fulfilling the extravagant claims made for the Holsteins on this side of the water.

Appropos of this, I shall look with some interest to the reply to my former question to Mr. Cook, namely, whether these cows who are reported to have made such prodigious milk yields were farrow during the whole or the greater part of their tests.

I have asked Mr. Cook and Mr. Miller to point out (1) wherein these tests were unfair to either breed; (2) to state whether the cows tested were or were not fair representatives of the breeds.

If Mr. Cook or Mr. Miller claim either of these points then let them arrange to accept my challenge for another test between the breeds. Mr. Cook accused me of not including the United States in my challenge. In the *Montreal Dairyman* I have stated

my willingness to have him or any of his friends in the United States accommodated, but up to the present have heard of no action therein. Surely it cannot be that Holstein breeders prefer to permit the reputation of their breeds to rest on statements of interested men rather than submit them to public or open competition. It would seem that such was the case at the Michigan State Fair, held at Kalamazoo in the fall of 1885, where dairy cows were judged on their merits and performance. The pair, and where the milk was set in glass jars and publicly displayed: All the other dairy breeds on exhibition submitted their milk, but the Holstein breeders at this exhibition refrained from doing so, as did the Holstein breeders at Toronto abstain from entering their stock in public competition against the other breeds for milk, cheese and butter.

I think I am not far amiss in believing that the public will prefer to judge by the result of the impartial tests at the Agricultural Farm, at the London Exhibition, and the five-year test of Dr. Voelcker at Islington, England, especially when the Holstein men by allowing my challenge to remain unaccepted, virtually admit that they fear the result of another public test, when they admitted as much at Toronto by not allowing their cows to be tried, although they had been entered; and when they declined at Michigan State Fair to permit the milk of their herds to come under public and impartial observation.

If the Holstein men of Canada claim their cows excel the Jerseys for "milk, cheese and butter combined," let them accept my challenge and have another test, producing the best Holstein. If they do not, I shall claim it is because they know and feel it will only confirm the fast growing opinion that the Holsteins are a failure as a dairy cow.

VALANCEY E. FULLER.

Oaklands, Hamilton, Ont.,
March 22d, 1886.

Holsteins vs. Jerseys.

EDITOR CANADIAN LIVE-STOCK JOURNAL.

On page 72 of your March number, Mr. Valancey E. Fuller asked me regarding my opinion of the Holsteins at the 1885 London show. My answer is, judging from appearance, many of them are first-class animals, but, according to the dairy test, they were below the average. That these dairy tests differ so widely from experience in Europe and the United States, is conclusive evidence that they are not a true criterion of the merits of the breed.

Mr. Fuller says: "Judged by these tests, as a breed of dairy cows, they" (Holsteins) "are an entire failure."

It is probable that all the butter was not extracted from the Holstein milk at these tests. This is apt to be the case where the entire milk is not churned, or sufficient time is not allowed for all the cream to rise. This often explains why Holstein milk does not show a larger percentage of butter, when tested by those ignorant of its nature.

Holstein milk contains small fat globules, which take longer to rise than large ones found in the milk of the Jersey. On account of these small fat globules Holstein butter can be made firmer and remains sweet longer than Jersey butter, or that made from milk containing large fat globules.

Dairying is profitably carried on in Holland and on land which sells for from \$500 to \$1000 an acre, and upwards. For five years—1869 to 1874 inclusive—with less than a million cows, Holland produced and exported a surplus of 37,779,765 lbs. of butter and 60,360,665 lbs. of cheese annually. Were Holsteins "an entire failure as dairy cows," these results could not be obtained.

In the London market Holland butter is called by the name of the province whence most of it comes. As to its value, compared with American and Jersey butter, *The Farmer*, of Jan. 25th, published in England, gives the following London quotations per cwt.:

	1886.	1885.
Jersey,	80s. to 110s.	80s. to 110s.
American	60s. to 112s.	80s. to 122s.
Friesland	116s. to 126s.	120s. to 132s.

Though Danish and Normandy butter of the first quality generally brings more in London than Friesland butter, the quotations of Friday, Feb. 13th, in the *Agricultural Gazette* were as follows:

Danish, 1st quality	1s. 1d. per pound,
" 2nd "	11d. "
Swedish, 1st "	1s. "
Kiel	1s. 1d. "
Ostende	1s. "
Normandy, 1st quality	1s. 1d. "
" 2nd "	11d. "
Friesland (Holstein)	1s. 2d. "
Jersey	11d. "

From this practical test of shillings and pence, compared with all foreign butter offered on the London market, Friesland butter (Holstein) brought the highest price, and Jersey butter the lowest.

There is no copyright on this, and Mr. Fuller is at liberty to use it, to convince the dairymen of Canada which is the best butter breed.

As Messrs. Yeomans & Sons' herd of Holsteins has been tested for butter, and Mr. Fuller has asked questions concerning them, I enclose a report of the tests and hope you will have room to give it entire.

DUDLEY MILLER.

Oswego, March 14, 1886.

BUTTER RECORDS OF THOROUGH-BRED HOLSTEIN-FRIESIAN COWS OF THE HERD OF T. G. YEOMANS & SONS, OF WALWORTH, WAYNE CO., N. Y.

It is a well established fact that the better strains of Holstein-Friesians are superior to any other breed for the production of butter as well as milk.

We give the following records, all made in our herd, and all but three have been made since January 1st, 1884.

We feel that we may justly claim that in butter, our herd stands far ahead of any other herd of Holstein-Friesians in the country.

Several of these were two or three months under five years, but being over four and one-half years, we give them as five years.

These records were made in the most careful and accurate manner possible, many in the winter season, and are authenticated by the affidavits of reliable persons.

In all our butter tests, the butter is thoroughly washed with water in the churn, then taken out in granular form and well worked in one solid mass and weighed, before salting—this being, we think, the only correct and accurate way to get the true amount of butter.

These are not estimates, but actual records for the full time given:

Queen of Wayne,	11 years, 17 lbs. 4 oz. in 7 days.
Lady Walworth,	8 " 19 " 6 " 7 "
" "	8 " 37 " 6 " 14 "
Crystal	6 " 16 " 7 " 7 "
Dewdrop,	6 " 18 " 6 1/2 " 7 "
Patsy,	6 " 19 " 10 1/2 " 7 "
Aggie 2d,	2 " 17 " 6 " 7 "
" "	6 " 26 " 7 " 7 "
" "	6 " 105 " 10 1/2 " 30 "
" "	6 " 304 " 5 1/2 " 50 "
Sibyl,	7 " 18 " 3 1/2 " 7 "
Prairie Flower,	5 " 20 " 1 " 7 "
" "	5 " 81 " 10 1/2 " 30 "
Jenny Lind,	6 " 22 " 7 " 7 "
Lily,	5 " 21 " 4 1/2 " 7 "
Lily,	5 " 83 " 11 1/2 " 30 "
Princess of Wayne	5 " 22 " 9 " 7 "
" "	5 " 91 " 4 " 30 "
Georgie,	5 " 21 " 15 1/2 " 7 "
" "	5 " 63 " 4 " 21 "
Oatka,	5 " 22 " 8 1/2 " 7 "
" "	5 " 85 " 7 " 10 "
Holland Jewel,	5 " 15 " 8 " 7 "
Sadie Vale,	6 " 23 " 11 " 7 "
Princess of Wayne 3d,	3 " 15 " 12 " 7 "
" "	3 " 76 " 12 1/2 " 30 "
Sibyl 2d,	3 " 17 " 7 " 7 "
Princess of Wayne 4th,	3 " 14 " 5 " 7 "
Florabel,	4 " 17 " 1 1/2 " 7 "
Aggie 3d,	3 " 19 " 1 " 7 "
Telephone,	2 " 12 " 4 " 7 "
Ideal,	2 " 14 " 1 1/2 " 7 "
Laure,	2 " 13 " 7 " 7 "
Sunrise (1 year 11 months),	12 " 4 " 7 " 7 "
Gift,	2 " 10 " 10 " 7 "
Frolic,	2 " 10 " 3 " 7 "
Star (2 years 8 months),	15 " 13 " 7 " 7 "
Duty (1 year 10 months),	13 " 14 1/2 " 7 "
Sunset,	2 " 12 " 15 " 7 "

*After the loss of one-fourth her udder and her milk reduced to an average of 56 lbs. a day, she made in 7 days, 17 lbs. 4 oz. of butter, showing conclusively that she was capable of making over 21 lbs. a week, before the injury to her udder.

*When 3 1/2 months in milk.

Aggie 2d,	made a pound of butter to 20.59 lbs. milk
3rd,	" " 18.4 "
Princess of Wayne,	" " 21.20 "
Prairie Flower,	" " 22.7 "
Oatka,	" " 22.3 "
Princess 3rd,	" " 23.3 "
Sibyl 2nd,	" " 21.00 "
Dewdrop,	" " 22.07 "
Jenny Lind,	" " 24.06 "
Holland Jewel	" " 25.84 "
Gift,	" " 26.7 "
Frolic,	" " 26.55 "
Florabel,	" " 23.3 "

All the animals named are now in our herd except two, of which we have the offspring.

The 9 two years averaged	12 lbs. 13 1/2 oz. each, per w.k.
The 4 three years averaged	17 " 6 1/2 oz. "
The 15 four years and over averaged	20 " 12.8 oz. "
The entire 29 of all ages averaged	17 " 7 1/2 oz. "
Best 12 (including 2 three years),	21 " 6 1/2 oz. "
Best 5,	23 " 7 oz. "