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Branch of the Dairy and Cold Storage Commissioner
OTTAWA, CANADA

REPORT

OF THE

COW TESTING ASSOCIATIONS

*(Extract from the Report of the Dairy and Cold Storage Commissioner
for the year ending March 31, 1907)*

BULLETIN No. 21

Dairy and Cold Storage Commissioner's Series

Published by direction of the Hon. SYDNEY A. FISHER, Minister of Agriculture, Ottawa, Ont.

OCTOBER, 1907

REPORT OF THE COW TESTING ASSOCIATIONS.

NOTE.—In view of the fact that every dairy farmer in Canada should be interested in the question of the improvement of dairy herds, and the further fact that there is a growing demand for information on the subject, it has been considered advisable to reprint, in bulletin form, a large edition of that part of the Report of the Dairy and Cold Storage Commissioner which deals with the records of the cow testing associations, organized and conducted by the 'Dairy' Branch of the Dominion Department of Agriculture, for the season of 1906.

Copies of this bulletin will be sent, free of cost, to any manager of a cheese factory or creamery, or any other person who may desire to organize a cow testing association.

J. A. RUDDICK,
Commissioner.

THE IMPROVEMENT OF DAIRY HERDS.

The organization of cow testing associations, now being encouraged by this Branch, has for its object the improvement of the dairy herds of Canada. Reference was made to this work in our last report, and the plan on which the associations are organized is therein described. Bulletin No. 12 also deals with the subject in detail.

In view of the importance of this question, it has been considered advisable to publish a fairly complete statement of the performance of the individual cows under test during the year. Mr. C. F. Whitley, of the dairy staff, who has charge of the records, has compiled the figures and made the notes thereon which are found in the following pages. It may be as well to remind the reader who may examine these records, that, generally speaking, it was the best dairymen in the district who joined the associations, so that the records are in all probability higher, on the average, than they would be if the record of every cow in the locality was included.

Apart from the testing done as a result of the organization of these associations, a large number of individual dairymen have been induced to take up the work on their own behalf.

Some of the more progressive cheese factory and creamery managers are also

taking an interest in the work, and have offered to do the testing for any of their patrons who desire to keep records of their herds. This is a legitimate work for any factory management to undertake, if satisfactory arrangements can be made to handle the extra work involved.

We regard this work so far as only preliminary to more thorough methods, which will include quantity and cost of feed, along with the value of the milk produced, in order to determine more accurately the net earning capacity of each cow.

The farmer who is not able to join a cow testing association, or to have samples of milk tested for percentage of fat, need not be deterred from keeping a record of weight of milk only, for the information such a record will give him will be found very useful in determining the relative value of his cows.

A careful study of Mr. Whitley's figures will reveal amazing contrasts in the production of cows of the same breed, receiving the same care and feed. One of the most important points brought out is that persistency in milk production is one of the main factors in building up a good year's record. Many cows start out well after calving, but show rapid shrinkage early in the season. It will be observed that a large number of the cows have been recorded only for five or six months and some even less, which represents in most cases the length of the milking period. A decided tendency to 'dry up' early seems to be the chief reason why a large proportion of the cows fail to make good records.

COW TESTING ASSOCIATIONS.

In 1906 sixteen cow testing associations were organized in Canada. Three were arranged in Ontario, at Brockville, Princeton and North Oxford, with a membership of 44 farmers entering 640 cows to be tested. In Quebec there were thirteen associations, at Cowansville, Mansonville, St. Armand, St. Edwidge, St. Camille, Lotbinière, Chicoutimi, Bagotville, Laterrière, St. Félicien, Normandin, Rivière à l'Ours and La Décharge, with a membership of 311 men and 3,882 cows.

The members agreed to weigh the milk from each individual cow in the herd, morning and evening, on three days during the month, at intervals of 10 days, right through the year. At each weighing a sample was taken, thus giving six samples from each cow every 30 days. The members provided themselves with spring scales, and one sample bottle for each cow. The Dairy Commissioner furnished blank forms, preservative, acid, &c., and an official to do the testing of the composite samples every month free of cost. Over 19,000 tests were made. Reports of each cow's yield were sent monthly to each farmer and a summary of each association's test was sent to all members, so that there was abundant opportunity of comparing the yields.

In many of the herds a decided increase in the flow of milk was noticeable in September. In some cases this was attributed by the members to cooler weather and better pasture. But where a little extra care and attention had been observed the results were marked: for instance, protection from flies, provision of green feed, and division of pasture into one or two small fields, allowing cows on the heaviest growth for two or three hours daily.

One of the best feeders and most successful dairymen amongst the members (see record of herd 27, Cowansville, Que.), writes that he feeds grain practically the year round, except for a short time when a cow is dry, in quantity according as her milk yield and her condition warrant. This indicates a careful study of the individual animal, which has evidently abundantly repaid him. In summer, he uses bran and cornmeal, and in winter gluten meal, linseed meal and ground barley. In winter, the roughage is ensilage, with early cut clover and mixed hay. The ordinary pasture on this particular farm is poor, so a liberal use is made of soiling crops: first clover; then peas, oats and vetches; then second crop clover; followed by green corn.

The prime object of the associations is to induce a study of each particular cow in the herd, with a view of keeping only such animals as will produce economically an abundant supply of milk containing a high percentage of fat.

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TABLE VI.—AVERAGE YIELDS, 16 COW TESTING ASSOCIATIONS, 1906.

Period.	QUEBEC.				ONTARIO.				GENERAL AVERAGE.			
	No. of Cows.	Milk.	Test.	Fat.	No. of Cows.	Milk.	Test.	Fat.	Total No. of Cows.	Milk.	Test.	Fat.
		lbs.		lbs.		lbs.		lbs.		lbs.		lbs.
4 Months	353	1,976	4.0	79.3	73	3,152	3.3	101.2	431	2,175	3.8	83.5
5 "	317	2,575	3.9	102.4	71	3,655	3.4	124.5	388	2,772	3.8	106.4
6 "	292	3,104	4.0	124.0	89	4,414	3.4	159.1	381	3,410	3.7	139.1
7 "	265	3,409	4.0	138.1	137	5,021	3.4	172.1	402	3,958	3.7	149.7
8 "	271	4,121	4.0	166.9	105	5,938	3.3	200.6	376	4,629	3.8	176.3
9 "	195	4,424	4.1	181.7	52	6,130	3.4	211.6	247	4,783	3.9	188.0
10 "	50	5,097	4.1	213.0	2	8,565	2.7	232.5	52	5,231	4.0	213.8
11 "	18	5,660	4.7	267.3	.....	.....	.....	.....	13	5,660	4.7	267.3

Table VI gives a summary of the tests made of such cows whose milk samples were sent in for four months or more. Unfortunately, many farmers only took weights and samples for one, two or three months; then they discontinued despite several efforts made to persuade them to persevere.

Generally speaking, the prevalent idea that Quebec milk is richer than Ontario milk is borne out by these averages, for the average test runs higher in each period. As the details of the cows in each herd printed below indicate, the animals included are representative of several breeds and crosses. The Quebec averages, more especially those of eight months and over, are greatly helped by the particularly good records of the high grade Jersey herd No. 27, in the Cowansville association, combining a lengthy season of milk production and a high percentage of fat. Similarly, the Ontario results owe much to some pure-bred Holsteins at Brockville and North Oxford.

Taking these things into consideration, coupled with the fact that in most associations the membership is composed of farmers with the best herds in the district, there is strong probability that the averages here given are higher than the actual average production in these provinces. (See the following paragraph 'Some Average Records.') Further work of the same nature will in all likelihood throw more light on this point. However, no matter what the average may be now, it is confidently expected that the next few years will see a marked improvement. The careful observation of each individual cow in the herd by several hundred farmers cannot be without fruitful results.

After the eight months' records, a rapid falling off in the number of cows tested is noticed. There may be some apathy in a continuance of the weighing month after month, which it is hoped to overcome as the benefits, indeed the necessity, of the work become more apparent; but the indications, from the weights sent in, are that the large majority of the cows were drying up quickly at the end of this period, which is all too short in this commercial age.

SOME AVERAGE RECORDS.

Ardock, Ont., cheese factory for the season of 1905, May 1 to October 31, had 315 cows giving an average of 2,596 pounds milk.

At North Star cheese factory, near Brockville, Ont., for the season of 1905, out of 22 herds whose total returns were carefully compiled, the highest average production of any one herd was 5,486 pounds of milk from 12 cows, costing \$38.50 to feed for the year, and yielding an average profit of \$7.89 per cow. At the same factory during the same time another herd of 15 cows had an average production of only 1,856 pounds of milk, indicating a serious loss when allowing fair prices for pasture, grain and hay.

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Three other herds at this factory had an average of only 2,241, 2,753 and 2,865 pounds of milk.

For the season of 1905, April 24 to November 4, at Scottsdale, Que., cheese factory, the average production of 284 cows was 2,024 pounds of milk. Giving full credit for the milk sent to the factory, allowing full value for the yield outside the factory season, as well as whey and skim milk, also valuing the milk and butter for domestic use, the average receipts per cow stood at \$28.61 for the full twelve months.

Not far from this is another cheese factory at Farnham Centre, Que., where the average yield of 472 cows was 3,040 pounds of milk, and the total receipts from all sources averaged \$36.07 per cow for twelve months.

SOME GOOD RECORDS.

In contrast to the foregoing these two herds are worth noting.

A good record at Huntingdon, Que., of 28 cows shows an average yield of 6,956 pounds of milk, testing 3.9, in 12 months.

A herd of 19 cows near Ingersoll, Ont., has an average yield of 7,231 pounds of milk in 9 months, value \$66.55 per cow. At the same factory the average of the 1,000 cows belonging to the patrons stands at 4,400 pounds of milk. It should not be difficult to increase the yield by 500 pounds of milk per cow; this would mean another \$4,500 coming to the patrons.

The records of each association may now be considered separately.

TABLE VII.—AVERAGE YIELDS OF 30 DAY PERIODS, BROCKVILLE, ONT., 1906.

30 Days ending.	Total No. of Cows.	AVERAGE.		
		Pounds. of Milk.	Test.	Pounds of Fat.
Feb. 28.	5	1,435	2.9	42.9
Mar. 30.	14	1,032	3.2	33.3
April 30.	50	828	3.1	25.9
May 30.	146	891	3.3	30.2
June 30.	162	934	3.2	30.1
July 30.	131	823	3.1	26.0
Aug. 30.	135	715	3.4	24.6
Sept. 29.	97	703	3.4	21.3
Oct. 30.	65	581	3.8	21.9
Nov. 30.	82	356	3.7	13.3
Dec. 30.	28	442	3.5	15.7

Following this summary of each association will be found the details of each individual cow in every herd whose milk samples were sent in to be tested for four months or more during the year.

BROCKVILLE, ONT.

Taking the records of the Brockville association, in herd 9 it is found that 6 cows average 6,274 pounds of milk each in 9 months; a good showing. The best record for that period is 6,948 pounds from the 3-year-old cow No. 5.

In herd 2 is a strong contrast between the two 6-year-olds milking 10 months, a difference of 4,444 pounds of milk and 124 pounds of fat. Individuality is everything; it is not a matter of breed, age or pedigree only. In herd 2 the total fat production of cow No. 2 in 8 months is only 21 pounds lower than that of cow No. 1 in 10 months. The former indicates an average fat test of 3.4, the latter 2.8 per cent.

In herd 6, cow No. 16 is still working away at her life mission, milk production, at the age of 15. It is gratifying to note such commendable service. Are not some

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of our best cows, and best bulls, disposed of too early? Records of production will obviate sacrificing good stock prematurely.

Herd 12 contains 4 good cows with a good average fat production for 8 months, one of them almost touching the 10,000 pound mark in milk yield. Evidently it pays to grade up with a first-class sire.

In herd 14 the older animals milking 4 months show a far better average than those in herd 15, milking 6 months.

In herd 6 the 12 cows milking 6 months show a total production of 60,693 pounds of milk containing 2,075 pounds of fat; but in herd 15 the 12 cows milking 6 months show only a total of 35,359 pounds of milk and 1,123.8 pounds of fat.

Again, 6 cows in five months yield 30,984 pounds of milk, but in another herd 12 cows give only 32,749 pounds during the same period. It is evident that better cows mean not only much less work, but more profit and infinitely more satisfaction.

TABLE VIII—TOTAL PRODUCTION OF INDIVIDUAL COWS, BROCKVILLE, ONT.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs	Lbs.
2	11		2	August 10, 1906	5	3,290	90.9
	10		3	" 7, 1906	5	4,185	115.1
	12		4	" 10, 1906	5	5,940	158.5
	8	Holstein	10	May 14, 1906	7	4,921	144.7
	7	"	6	" 12, 1906	7	6,213	171.8
	9	"	2	" 20, 1906	8	4,364	130.5
	5	"	6	" 3, 1906	8	6,515	178.5
	6	"	11	April 26, 1906	8	6,830	185.7
	4	"	12	" 23, 1906	8	6,973	190.0
	2	Pure Holstein	3	February 26, 1906	8	8,081	273.3
	3	"	6	March 20, 1906	10	6,343	170.5
	1	"	6	February 18, 1906	10	10,787	294.5
3	6	Grade Ayrshire	5	March 11, 1906	4	2,560	78.3
	3	"	4	" 6, 1906	4	3,070	94.5
	4	"	5	" 9, 1906	4	2,870	98.1
	5	"	6	" 6, 1906	4	3,195	107.0
	1	"	5	February 25, 1906	4	3,710	128.8
4	2	"	7	March 2, 1906	4	3,600	144.7
	18	Grade Holstein	8	July 5, 1906	4	4,300	135.1
	17			June 7, 1906	5	3,518	108.4
	16			May 30, 1906	5	3,600	121.3
	14	Grade Holstein	2	" 6, 1906	6	3,490	105.6
	13				6	4,470	138.3
	15	Grade Holstein	4	May 13, 1906	6	4,682	152.7
	12				6	4,800	165.4
	1	Holstein	3	March 17, 1905	7	2,240	78.4
	10	Grade Holstein	7	" 31, 1906	7	4,710	151.0
	11	"	6	April 14, 1906	7	4,580	151.8
	9	"	4	March, 1906	7	5,900	191.5
	8	Holstein	7	" 28, 1906	7	7,050	209.6
	2	"	5	April 29, 1905	8	4,120	134.2
	3	"	7	February 20, 1905	8	5,020	163.5
	4	"	7	" 15, 1905	8	4,840	181.6
	7	"	9	March 22, 1906	8	6,140	185.9
	6	"	4	" 16, 1906	8	6,573	199.6
	5	"	5	" 7, 1906	8	6,289	238.2
6	9	Ayrshire	2	May 15, 1906	4	2,278	70.0
	12				4	3,060	94.1
	13	Ayrshire			4	3,450	102.2
	10	Holstein	6	February 28, 1906	4	2,950	123.9
	17	Jersey			4	3,390	185.4
	1	Ayrshire	3	January 1, 1906	5	4,070	149.5
	18	"			5	4,640	178.6

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TABLE VIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, BROCKVILLE, ONT.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
6	20	.....	.....	April 20, 1906.....	6	3,710	147.5
	19	.....	.....	" 15, 1906.....	6	4,635	151.0
	15	Ayrshire.....	.....	.....	6	4,450	156.0
	4	Holstein.....	5	March 27, 1906.....	6	4,600	157.0
	3	Ayrshire.....	4	April 15, 1906.....	6	4,992	167.1
	7	Holstein.....	6	March 25, 1906.....	6	4,960	169.4
	16	.....	15	" 22, 1906.....	6	5,380	173.6
	5	Holstein.....	5	April 17, 1906.....	6	5,082	184.3
	8	.....	6	March, 1906.....	6	6,150	186.4
	14	Durham.....	8	April 16, 1906.....	6	5,354	186.8
	2	Holstein.....	4	March 28, 1906.....	6	5,730	193.4
	6	".....	6	" 20, 1906.....	6	5,860	202.5
7	15	Grade Ayrshire.....	3	May 15, 1906.....	5	2,485	88.0
	1	".....	5	" 27, 1906.....	5	3,335	108.7
	14	".....	5	" 18, 1906.....	5	3,275	127.7
	13	".....	5	" 17, 1906.....	5	3,775	145.9
	12	Grade.....	14	" 10, 1906.....	6	3,375	122.7
	4	Grade Ayrshire.....	8	March 27, 1906.....	7	4,060	140.8
	7	".....	11	April 7, 1906.....	7	4,198	154.6
	11	".....	13	" 14, 1906.....	7	4,193	155.0
	3	Grade Holstein.....	5	March 27, 1906.....	7	4,365	156.2
	5	Grade Ayrshire.....	12	" 28, 1906.....	7	4,405	157.1
	6	Grade Holstein.....	3	April 6, 1906.....	7	4,394	160.0
	9	".....	5	" 8, 1906.....	7	5,130	168.5
	10	Grade Ayrshire.....	8	" 13, 1906.....	7	5,283	182.0
	8	".....	10	" 7, 1906.....	7	4,518	186.0
	2	".....	9	March 23, 1906.....	8	4,308	152.2
8	12	Holstein.....	8	June 23, 1906.....	4	3,090	125.8
	11	".....	8	May 26, 1906.....	5	3,980	131.5
	10	".....	6	" 22, 1906.....	5	4,000	137.1
	8	Grade Holstein.....	7	April 20, 1906.....	6	3,700	130.8
	9	".....	5	" 24, 1906.....	6	4,610	144.4
	3	".....	5	March 20, 1906.....	7	4,750	156.3
	7	".....	6	April 2, 1906.....	7	4,801	156.7
	1	Grade Durham.....	3	March 18, 1906.....	7	4,430	168.2
	5	Grade Holstein.....	8	" 26, 1906.....	7	5,030	170.7
	2	".....	4	" 20, 1906.....	7	5,200	190.0
	4	".....	6	" 21, 1906.....	7	5,700	190.5
	6	".....	7	" 30, 1906.....	7	5,920	194.7
9	12	.....	3	June 5, 1906.....	7	4,790	169.3
	11	Grade Jersey.....	10	May 20, 1906.....	8	4,850	160.8
	9	Grade.....	3	April 16, 1906.....	8	4,675	188.3
	10	Pure Ayrshire.....	6	May 3, 1906.....	8	6,466	219.3
	4	Grade Holstein.....	2	April 2, 1906.....	9	3,810	153.1
	8	" Jersey.....	2	" 14, 1906.....	9	4,172	166.1
	1	" Holstein.....	8	March 15, 1906.....	9	6,620	181.6
	3	" Ayrshire.....	9	" 24, 1906.....	9	5,280	212.1
	2	".....	7	" 16, 1906.....	9	5,630	235.2
	7	Pure Ayrshire.....	7	April 13, 1906.....	9	6,390	240.8
	6	Grade.....	6	" 14, 1906.....	9	6,776	248.3
	5	Pure Ayrshire.....	3	" 12, 1906.....	9	6,948	258.7
12	12	Grade Holstein.....	10	" 15, 1906.....	5	5,820	180.9
	9	".....	8	May 19, 1906.....	6	6,938	229.6
	11	".....	2	March 18, 1906.....	7	3,950	118.1
	10	".....	3	April 4, 1906.....	7	4,316	144.3
	2	".....	3	March 24, 1906.....	7	5,290	160.8
	5	".....	7	April 25, 1906.....	7	5,630	214.6
	6	".....	7	May 11, 1906.....	7	7,340	224.2
	7	".....	8	" 15, 1906.....	7	6,740	251.4

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TABLE VIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, BROCKVILLE, ONT.
—Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
12	3	Grade Holstein	6	April 4, 1906	8	7,708	256.1
	4	"	7	" 11, 1906	8	7,017	270.8
	1	"	9	" 14, 1906	8	8,724	291.8
	8	"	7	March 24, 1906	8	9,990	316.4
13	13	"	6	May 24, 1906	4	2,795	85.0
	12	"	12	" 6, 1906	4	3,264	122.2
	8	"	"	April 16, 1906	5	2,728	92.1
	10	"	"	" 19, 1906	5	3,324	100.8
	2	"	"	" 2, 1906	5	2,868	118.5
	3	"	"	" 4, 1906	5	3,407	118.8
	9	"	"	" 18, 1906	5	3,664	123.1
	7	"	"	" 15, 1906	5	3,512	125.3
	6	"	"	" 8, 1906	5	3,520	129.0
	4	"	"	" 3, 1906	5	3,609	130.4
	1	"	"	March 15, 1906	5	3,880	137.4
	5	"	"	April 9, 1906	5	3,562	140.0
14	14	Grade Holstein	3	March, 1906	4	2,880	80.8
	10	"	3	April, 1906	4	3,090	84.3
	9	"	4	" 1906	4	2,890	86.9
	1	"	2	January 2, 1906	4	2,920	80.3
	13	"	4	April, 1906	4	3,490	91.8
	3	"	7	" 1906	4	3,530	96.8
	15	"	4	" 1906	4	3,120	98.7
	8	"	3	May, 1906	4	3,110	99.9
	6	"	3	April, 1906	4	3,270	105.1
	2	"	7	" 1906	4	3,300	107.1
	16	"	6	" 1906	4	3,820	110.7
	12	"	5	" 1906	4	3,430	112.1
	17	"	8	March, 1906	4	3,600	117.2
	11	"	8	April, 1906	4	3,950	118.3
	18	"	4	March, 1906	4	3,320	118.6
	7	"	4	April, 1906	4	4,120	137.6
	5	"	10	" 1906	4	4,720	149.3
15	16	Grade	7	July 15, 1906	4	2,598	77.5
	14	"	2	May 30, 1906	5	2,190	73.6
	15	"	7	June 5, 1906	5	3,300	93.9
	13	Grade Holstein	2	May 14, 1906	6	2,309	68.7
	10	"	3	October 15, 1905	6	2,210	70.4
	7	"	3	December 1, 1905	6	2,490	77.3
	8	"	4	March 15, 1906	6	2,520	85.2
	2	"	3	April 20, 1906	6	3,050	86.2
	11	"	3	" 20, 1906	6	3,000	91.8
	9	"	6	March 20, 1906	6	3,010	97.5
	1	"	4	April 1, 1906	6	3,240	99.5
	6	"	6	" 2, 1906	6	3,380	99.8
	3	Common	8	March 25, 1906	6	3,170	104.0
	4	"	9	April 20, 1906	6	3,390	121.5
	5	"	8	" 23, 1906	6	3,590	121.9

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TABLE IX.—AVERAGE YIELDS OF 30 DAY PERIODS, PRINCETON, ONT., 1906.

30 Days ending	Total No. of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
April 17.	31	540	3.3	18.1
May 14.	45	671	3.3	22.4
June 14.	85	816	3.4	28.5
July 14.	197	722	3.4	24.7
Aug. 14.	93	607	3.5	21.6
Sept. 14.	72	580	3.8	22.2
Oct. 11.	51	503	3.9	19.8
Nov. 14.	38	367	4.1	15.2
Dec. 14.	36	321	3.6	11.8

PRINCETON, ONT.

In herd 9 the 4 cows tested for 7 months have a total production of 14,850 pounds of milk, but in herd 16 the 4 cows in 7 months show 23,760 pounds, or 8,910 pounds of milk and 341.3 pounds of fat *more*.

There are great possibilities still to be achieved in building up a good herd.

TABLE X.—TOTAL PRODUCTION OF INDIVIDUAL COWS, PRINCETON, ONT.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
2	4	Grade Durham	5	April 15, 1906	6	4,475	174.6
	3	Grade Jersey	4	" 15, 1906	6	4,355	184.6
	5	" "	4	" 10, 1906	6	4,490	186.4
	1	Grade Durham	5	March 31, 1906	6	5,470	188.6
	2	Grade Ayrshire	7	April 14, 1906	6	5,670	201.3
3	2	Ayrshire-Durham	4	May 13, 1906	4	2,700	100.1
	7	Ayrshire-Durham	5	April 19, 1906	5	2,924	92.5
	1	High Grade Durham	5	" 15, 1906	5	2,925	110.9
	4	Jersey-Durham	8	" 21, 1906	5	3,220	125.0
	5	High Grade Durham	7	" 20, 1906	5	3,711	130.8
4	1	Mixed, mostly Dur- ham Grades.		Calved between Feb. and June 1906.	4	2,055	78.8
	4				4	2,470	91.1
	7				4	2,640	96.3
	9				5	2,775	93.7
	5				5	2,815	104.5
	8				5	2,780	109.7
	3				5	3,100	114.2
	2				5	3,420	124.0
	10				5	3,140	128.3
	6				5	3,485	133.2
6	5	Jersey	8	February 21, 1906	5	2,100	87.4
	2	Common Grade	6	June, 1905, November, 1906	5	2,650	92.9
	1	Grade Durham	3	October, 1905	7	2,450	113.4
	4	Grade Jersey	7	February, 1906	7	3,380	130.9
	3	Durham-Holstein	6	March, 1906	8	3,640	127.0
7	12	Grade Durham-Ayrshire	3	May 27, 1906	5	1,940	68.2
	13	" "	3	June 10, 1906	6	2,930	109.4
	4	Grade Durham	3	August, 1905, August, 1906	7	2,790	96.1

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TABLE X.—TOTAL PRODUCTION OF INDIVIDUAL COWS, PRINCETON, ONT.—*Concluded*

Herd Number.	Cow Number.	Bred.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
8	7	Grade.....	2	May 1, 1906.....	7	3,080	120·6
	8	High Grade Jersey.....	7	" 21, 1906.....	7	2,510	124·3
	11	Grade Ayrshire.....	7	" 26, 1906.....	7	3,400	126·3
	10	Ayrshire-Durham.....	5	" 28, 1906.....	7	3,520	142·2
	9	Grade.....	5	" 21, 1906.....	7	3,830	146·2
	1	Jersey.....	7	September, 1905.....	8	3,740	149·3
	3	Ayrshire-Durham.....	4	July, 1905.....	9	3,510	129·7
	6	Grade Durham.....	5	April 12, 1906.....	9	4,170	155·0
	5	Grade Ayrshire-Jersey.....	5	March 7, 1906.....	9	4,860	168·3
	2	Grade Durham.....	8	" 14, 1906.....	9	4,900	190·0
8	5	" ".....	9	" 17, 1906.....	4	2,665	78·9
	6	Grade Jersey.....	6	May 23, 1906.....	6	3,303	125·5
	7	Grade Holstein.....	14	April 29, 1906.....	6	4,750	150·3
	4	Grade Durham.....	7	" 16, 1906.....	7	4,860	160·8
	3	Grade Jersey.....	5	March 23, 1906.....	8	5,140	179·7
	2	" ".....	5	" 26, 1906.....	8	5,829	187·9
9	8	Grade.....	7	June 15, 1906.....	6	3,370	113·1
	7	".....	5	April 20, 1906.....	7	3,700	115·9
	2	".....	4	January 20, 1906.....	7	3,530	122·5
	5	Grade Durham.....	5	June 3, 1906.....	7	2,750	123·4
	1	Holstein.....	5	January 16, 1906.....	7	4,870	140·3
	6	Grade.....	5	April 25, 1906.....	8	4,310	161·5
	4	Grade Durham.....	3	January 8, 1906.....	9	3,910	134·6
10	3	Grade Holstein.....	3	" 15, 1906.....	9	3,560	138·7
	7	Grade Durham.....	3	October 20, 1905, October, 1906.....	6	3,075	100·9
	8	Grade Holstein.....	3	September 1, 1905, August, 1906.....	7	3,207	105·8
	1	" ".....	2	April 16, 1906.....	7	3,900	123·1
	4	" ".....	4	" 20, 1906.....	7	4,575	138·0
	3	" ".....	4	March 14, 1906.....	7	4,992	147·3
13	2	Common.....	5	September 20, 1905, August, 1906.....	8	4,049	145·7
	6	".....	5	March 30, 1906.....	8	5,308	171·9
	7	Grade Jersey.....	2	April 15, 1906.....	4	2,160	68·9
	4	Grade Durham.....	8	March 21, 1906.....	4	2,615	93·7
	6	" ".....	3	" 19, 1906.....	4	2,375	83·9
	5	" ".....	8	April 4, 1906.....	4	2,810	93·3
16	2	" ".....	8	February 12, 1906.....	4	2,790	94·9
	1	Grade Jersey.....	8	" 8, 1906.....	4	3,035	99·2
	3	" ".....	9	April 24, 1906.....	4	4,110	141·4
	4	".....	4	May 22, 1906.....	6	4,190	146·6
	6	".....	5	" 23, 1906.....	6	5,270	190·6
	7	".....	12	July 2, 1906.....	6	5,540	226·3
17	2	Grade Durham.....	4	April 16, 1906.....	7	4,990	175·5
	3	" ".....	11	" 20, 1906.....	7	5,380	194·6
	5	" ".....	8	May 6, 1906.....	7	6,710	219·8
	1	" ".....	8	April 8, 1906.....	7	6,680	253·5
	2	" ".....	5	December, 1905.....	4	1,715	65·0
	5	" ".....	5	" 1905.....	4	1,940	72·6
17	7	" ".....	8	May, 1906.....	4	3,990	137·4
	6	Jersey-Durham.....	10	" 1906.....	4	3,525	138·4
	4	Grade Durham.....	3	December, 1905.....	5	2,130	84·5
	9	" ".....	4	" 1905.....	5	2,175	85·4
	3	Holstein-Durham.....	6	February, 1906.....	5	4,295	147·0

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TABLE XI.—AVERAGE YIELDS OF 30 DAY PERIODS, NORTH OXFORD, ONT., 1906.

30 Days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
April 21.....	80	833	3.2	27.2
May 21.....	209	873	3.2	27.9
June 21.....	288	1,004	3.2	32.9
July 21.....	304	867	3.2	28.0
Aug. 21.....	271	722	3.4	24.7
Sept. 21.....	278	728	3.3	24.5
Oct. 21.....	258	638	3.7	23.6
Nov. 21.....	183	521	3.8	19.8
Dec. 21.....	112	443	3.9	17.2

North Oxford, Ont.

In the weighing and sampling at North Oxford there was more persistent effort by the members than at the other two Ontario centres.

In herd 1 the 6-year-old cow No. 4 gives 182.7 pounds of fat, or 78 pounds less in 8 months than the 10-year-old cow No. 1. The variation in herd 9 for 7 months is from 148 to 122 pounds of fat, a difference of 74 pounds between the highest and lowest individual yields. It is similar in herd 10, the difference being 98 pounds of fat in 9 months between two 4-year-olds.

In herd 2 the 2 and 3-year-olds are making splendid promise.

Herd 7 has the gratifying average of over 260 pounds of fat from 9 cows milking 9 months. 7 of them are grades.

In herd 5 the 4 cows tested 7 months have a total yield of 15,190 pounds of milk, but in herd 4, 30,730 is the yield from the 5 cows tested 7 months; only one cow more, but more than double the quantity of milk. Again in herd 7 the 3 cows tested 7 months give 17,190 pounds, or 2,000 pounds more milk than the 4 cows in herd 5.

Attention is drawn to one important benefit of this association work. It not only saves farmers from wasting good feed on poor cows, but it also insures fairer treatment for good cows.

The owner of herd 2, who is a patron of the cheese factory and also ships milk to Toronto from Ingersoll, has very decided ideas as to what his cows should do for him if they expect him to provide them with board and lodging. One particular heifer did not come up to his demands and never gave more than 37 pounds of milk during any one day; accordingly he decided to sell her. However, on continuing the weighing, it was noticed that she did not fall off quickly or shrink very much in her yield. Hence the decision to retain her in the herd for a time. This was a most wise resolve, as she proved herself a good persistent milker and actually gave 11,155 pounds of milk, selling for \$115.54. The main point to notice is that this valuable animal, worth several hundreds of dollars, would have been needlessly sacrificed unless a definite system of weighing and recording the milk yield had been practiced.

Herd 14 has the excellent record of 9 cows tested 8 months yielding in that time a total of 69,702 pounds of milk.

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TABLE XII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORTH OXFORD, ONT.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk. Lbs.	Fat. Lbs.
1	17	Durham	3	March, 1905	4	1,680	56.2
	16	"	3	May, 1905	4	2,040	75.0
	21	"	2	June 26, 1906	6	4,065	152.9
	20	"	2	May 10, 1906	7	3,750	137.4
	19	"	2	" 25, 1906	7	4,260	163.5
	18	"	2	" 16, 1906	7	4,470	167.0
	8	Grade Durham	10	June 6, 1906	7	6,280	216.1
	4	Durham	6	April 24, 1906	8	5,449	182.7
	9	"	8	May 4, 1906	8	5,231	185.5
	14	"	3	" 10, 1906	8	5,396	188.7
	13	Grade Durham	4	April 13, 1906	8	5,610	204.0
	12	Durham	6	" 5, 1906	8	6,100	211.7
	15	"	3	May 4, 1906	8	6,095	215.4
	7	Grade Holstein-Durham	9	April 21, 1906	8	6,920	216.1
	2	Grade Durham	9	" 15, 1906	8	6,240	222.3
	11	"	10	" 13, 1906	8	6,480	223.5
	10	Grade Holstein-Durham	7	" 13, 1906	8	7,205	232.8
2	6	Grade Durham	12	" 18, 1906	8	6,285	245.5
	5	"	11	" 11, 1906	8	6,585	250.8
	3	Grade Holstein-Durham	7	" 18, 1906	8	7,375	256.1
	1	Grade Durham	10	May 10, 1906	8	7,200	261.1
	30	Grade Holstein	6	April 6, 1905	5	3,010	111.5
	22	"	4	October 5, 1905	6	4,025	142.0
	32	"	4	" 1, 1905	6	4,060	151.4
	29	Holstein	4	August 9, 1905	6	5,020	170.9
	23	Grade Holstein	12	Sept. 1, 1906	6	5,055	174.0
	11	Holstein	2	April 4, 1906	7	3,287	110.9
	21	"	2	August 2, 1905	7	4,305	147.1
	31	Grade Holstein	5	September 3, 1905	7	4,355	158.6
	26	"	5	" 20, 1905	7	4,885	159.2
	28	"	4	October 1, 1906	7	6,145	205.6
	12	"	3	April 19, 1906	8	5,335	172.4
	4	"	2	" 23, 1906	8	5,055	178.8
	20	Holstein	3	December, 1905	8	5,775	180.8
	24	Grade Holstein	13	November 20, 1905	8	5,470	186.8
	6	"	4	May 6, 1906	8	5,848	193.2
	7	Holstein	3	April 23, 1906	8	6,620	208.8
	3	Grade Holstein	12	" 25, 1906	8	7,170	215.4
	2	"	12	May 12, 1906	8	7,550	221.8
	15	"	3	March 12, 1906	8	6,490	229.9
	1	"	10	May 5, 1906	8	8,174	289.7
	13	"	2	March 26, 1906	9	5,240	181.0
	10	Holstein	2	April 2, 1906	9	5,300	181.2
	9	"	2	March 4, 1906	9	6,190	199.0
	16	Grade Holstein	3	April 4, 1906	9	6,160	202.0
	14	"	3	March 12, 1906	9	6,545	205.7
	25	Holstein	2	November 5, 1905	9	6,600	214.7
	5	Grade Holstein	2	April 5, 1906	9	6,520	223.6
	27	"	5	October 18, 1905	9	7,180	223.8
	17	"	4	March 22, 1906	9	6,475	228.1
	18	"	4	" 3, 1906	9	6,915	254.6
	8	"	4	" 25, 1906	9	7,652	268.5
3	16	Grade	11	May 19, 1906	6	4,115	127.7
	15	"	12	" 19, 1906	6	4,490	134.8
	11	"	7	April 24, 1906	7	4,190	121.3
	13	"	8	" 30, 1906	7	5,237	165.7
	14	"	10	May 12, 1906	7	5,560	181.9
	9	"	9	April 20, 1906	7	4,920	190.8
3	10	"	7	" 21, 1906	7	5,470	209.4
	12	Grade	11	April 30, 1906	7	6,316	244.4
	8	"	3	" 13, 1906	8	4,328	139.3
	7	"	12	" 12, 1906	8	5,605	144.3

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TABLE XII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORTH OXFORD, ONT.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
4	1	Grade	6	March 1, 1906..	8	5,470	152·1
	6	"	5	April 10, 1906..	8	5,329	179·5
	3	"	12	March 15, 1906..	8	4,940	194·0
	5	"	5	April 3, 1906..	8	5,840	202·1
	4	"	4	" 1, 1906..	8	6,040	203·2
	2	"	7	March 20, 1906..	8	6,850	212·1
	9	Grade Holstein..	8	May 27, 1906..	5	4,960	141·9
	7	"	6	" 27, 1906	6	5,980	180·3
	19	"	3	" 27, 1906	7	5,230	153·9
	15	"	3	" 15, 1906	7	5,500	170·1
	6	"	8	" 27, 1906	7	6,490	197·7
	8	"	8	March 5, 1906..	7	6,740	199·5
	5	"	8	" 28, 1906..	7	6,770	200·4
	17	"	3	April 20, 1906..	8	5,405	173·4
	13	"	3	May 1, 1906	8	5,492	179·2
	3	"	10	April 22, 1906..	8	6,970	206·1
	11	"	6	" 27, 19·6..	8	6,783	226·7
	4	"	10	May 1, 1906	8	6,8·3	236·5
	20	"	3	March 21, 1906..	9	5,390	171·1
	18	"	3	April 8, 1906..	9	6,535	198·2
	1	"	4	March 7, 1906..	9	6,935	204·9
5	14	"	3	April 5, 1906..	9	5,735	204·4
	2	"	5	March 4, 1906..	9	6,860	218·9
	16	"	3	April 1, 1906..	9	6,300	219·1
	10	"	4	March 27, 1906..	9	7,710	219·4
	12	"	7	April 2, 1906	9	7,615	244·6
	15	Grade Holstein..	5	August 13, 1906..	4	2,270	81·4
	13	Grade	6	" 18, 1906	4	2,760	97·1
	16	Grade Holstein..	8	April 26, 1906..	6	4,050	113·7
	17	Grade Durham ..	8	" 10, 1906	6	4,330	130·2
	4	Grade Holstein..	6	June 20, 1906	6	4,450	133·9
	10	"	2	May 25, 1906	7	3,210	108·0
	14	"	6	" 1905	7	3,880	146·3
	8	Grade Jersey	9	June 11, 1906	7	3,610	148·5
	2	Grade Holstein ..	4	April 25, 1906..	7	4,490	149·8
	11	"	2	" 13, 1906	8	2,660	109·5
	1	"	3	" 10, 1906	8	4,260	143·6
	12	"	4	" 26, 1906	8	4,880	159·1
	18	"	5	" 25, 1906	8	4,960	167·0
	5	"	8	" 22, 1906	8	5,500	168·3
	7	"	10	" 24, 1906	8	4,810	171·1
6	9	"	8	May 17, 1906	8	5,545	180·1
	3	"	8	April 12, 1906..	8	4,970	180·4
	6	Grade Jersey	9	May 1, 1906	8	4,345	182·9
	1	Grade	3	" 22, 1906	4	2,770	99·1
	4	"	3	" 24, 1906	4	3,230	103·5
	11	"	10	" 24, 1906	4	3,710	112·9
	13	"	3	" 11, 1906	5	3,570	117·1
	14	"	3	April 24, 1906..	5	3,910	120·1
	5	"	7	May 5, 1906	5	4,102	154·5
	8	"	5	" 5, 1906	5	5,505	180·2
	10	Grade	3	April 8, 1906	6	5,335	150·3
	7	"	5	March 20, 1906..	6	5,070	164·0
	6	"	7	" 14, 1906	6	5,520	173·5
	12	"	5	April 5, 1906	6	6,323	194·4
	2	"	8	March 17, 1906..	6	5,720	195·7
7	19	Pure	7	May 1, 1906	7	5,400	188·9
	11	Grade Durham ..	7	March 20, 1906..	7	6,350	205·7
	20	Pure	4	May 12, 1906	7	5,440	209·7

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TABLE XII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORTH OXFORD, ONT.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
7	8	Pure Durham	6	April 4, 1906.	8	5,967	185.9
	13	Grade	3	" 6, 1906.	8	5,040	201.5
	16	"	4	" 8, 1906.	8	6,360	227.9
	18	Grade Durham	7	" 14, 1906.	8	6,910	242.3
	14	Grade	6	" 15, 1906.	8	6,540	252.3
	15	"	4	March 26, 1906.	8	6,850	254.2
	12	Grade Durham	6	April 2, 1906.	8	7,130	264.3
	17	Pure Ayrshire	5	" 4, 1906.	8	7,670	265.7
	7	Pure Durham	8	" 6, 1906.	9	6,945	225.9
	6	Grade	6	" 5, 1906.	9	6,658	229.2
	4	"	7	March 15, 1906.	9	7,780	249.3
	10	"	5	April 3, 1906.	9	7,166	251.5
	1	Grade Durham	7	" 1, 1906.	9	6,080	257.1
	3	Grade	7	March 12, 1906.	9	8,420	275.4
	9	"	7	April 1, 1906.	9	8,380	281.0
	2	"	6	" 3, 1906.	9	7,554	282.2
	5	Pure Durham	8	" 4, 1906.	9	8,102	296.7
8	5	Pure Holstein	5	May 2, 1906.	4	4,080	108.2
	6	"	7	April 26, 1906.	4	3,374	111.7
	17	"	3	March 31, 1906.	5	3,135	99.9
	1	Grade Holstein	4	April 4, 1906.	5	3,413	109.7
	8	"	8	" 3, 1906.	5	3,684	115.3
	2	Grade Holstein	9	" 10, 1906.	5	3,680	132.5
9	9	"	8	" 12, 1906.	5	3,955	146.5
	6	Durham	3	" 1, 1906.	7	4,130	148.0
	2	Holstein	4	" 13, 1906.	7	4,799	158.7
	5	Durham	7	" 14, 1906.	7	5,047	178.5
	10	Holstein	5	" 4, 1906.	7	5,830	181.7
	3	Durham	7	" 10, 1906.	7	5,415	184.7
	8	Holstein	8	April 4, 1906.	7	5,905	195.0
	1	"	4	" 8, 1906.	7	5,456	195.7
	4	Durham	9	" 8, 1906.	7	5,733	199.3
	9	"	7	" 10, 1906.	7	5,815	216.0
10	7	Jersey	8	" 3, 1906.	7	5,805	222.2
	13	Pure Holstein	4	June 7, 1906.	7	4,631	142.9
	3	Grade Jersey	3	March 8, 1906.	7	5,080	184.2
	11	"	9	May 1, 1906.	8	3,985	173.3
	1	"	7	December 10, 1905	8	4,930	185.4
	12	Jersey Holstein	7	May 4, 1906	8	5,829	209.2
	2	Grade Jersey	7	December 3, 1905	8	5,185	211.0
	8	Grade Ayrshire	4	March 31, 1906.	9	4,590	164.2
	5	Grade Holstein	9	" 13, 1906.	9	4,655	167.9
	10	Ayrshire-Durham	11	April 12, 1906.	9	5,817	173.2
	4	Grade Holstein	4	March 12, 1906.	9	5,360	176.1
	7	"	4	" 20, 1906.	9	6,050	225.4
11	6	"	11	" 15, 1906.	9	7,095	230.9
	9	Ayrshire-Jersey	4	" 25, 1906.	9	6,570	262.2
	30	Grade Holstein	10	June 25, 1906.	4	3,710	120.3
	29	"	7	May 6, 1906.	5	4,640	156.1
	25	Grade Ayrshire	2	April 26, 1906.	6	4,066	131.7
	23	Grade Holstein	10	" 17, 1906.	6	4,310	146.1
	26	"	2	" 25, 1906.	6	3,740	157.0
	20	Grade Ayrshire	5	April 15, 1906.	6	4,843	158.6
	24	"	6	" 10, 1906.	6	4,610	179.3
	21	Grade Holstein	6	" 11, 1906.	6	5,920	181.2
	28	Grade Guernsey	7	May 1, 1906.	6	5,070	181.9
	22	Grade Durham	7	April 12, 1906.	6	6,080	182.6
	19	Grade Holstein	2	" 18, 1906.	6	4,350	190.2
	27	"	8	May 3, 1906.	6	5,852	192.7

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TABLE XII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORTH OXFORD, ONT.

Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
11	2	Grade Ayrshire.....	10	January 5, 1906.....	7	4,320	147·3
	10	Grade Holstein.....	3	February 2, 1906.....	7	4,200	147·8
	11	" ".....	3	March 25, 1906.....	7	4,850	166·8
	1	" ".....	5	January 9, 1906.....	7	5,330	179·7
	15	Grade Durham.....	19	March 21, 1906.....	7	5,110	179·8
	13	" ".....	8	" 11, 1906.....	7	5,470	187·2
	9	Grade Holstein.....	7	" 8, 1906.....	7	5,460	183·1
	5	Grade Jersey.....	5	" 11, 1906.....	7	5,100	190·9
	12	Grade Guernsey.....	7	" 13, 1906.....	7	5,660	195·0
	7	Grade Holstein.....	8	" 24, 1906.....	7	6,050	203·8
	4	Grade Ayrshire.....	7	February 16, 1906.....	7	6,360	209·8
	3	Grade Jersey.....	7	" 17, 1906.....	7	5,390	210·5
	17	Grade Ayrshire.....	6	March 25, 1906.....	7	5,750	212·8
	16	Grade Durham.....	5	" 27, 1906.....	7	6,420	215·6
	18	" ".....	5	" 3, 1906.....	7	5,790	218·6
	6	" ".....	7	" 24, 1906.....	7	6,470	225·3
	14	" ".....	9	" 20, 1906.....	7	6,010	228·3
	8	Grade Ayrshire.....	6	" 7, 1906.....	7	5,690	232·0
12	5	Grade.....	6	" 21, 1906.....	6	3,760	123·0
	13	" ".....	5	April 16, 1906.....	6	3,630	129·3
	15	" ".....	5	May 2, 1906.....	6	4,550	132·9
	14	" ".....	6	" 1, 1906.....	6	3,730	138·1
	12	" ".....	5	April 20, 1906.....	6	4,490	153·1
	11	" ".....	12	" 24, 1906.....	6	4,922	174·1
	10	" ".....	7	" 26, 1906.....	6	6,380	240·8
	6	" ".....	11	March 9, 1906.....	7	4,290	146·0
	8	" ".....	5	" 20, 1906.....	7	4,860	173·4
	9	" ".....	4	" 19, 1906.....	7	4,840	174·6
	7	" ".....	7	" 6, 1906.....	7	5,580	195·5
	1	" ".....	10	" 19, 1906.....	7	5,730	200·0
	4	" ".....	11	" 26, 1906.....	7	5,500	203·6
	2	" ".....	9	" 8, 1906.....	7	6,060	221·4
	3	" ".....	9	" 22, 1906.....	7	5,390	240·8
13	3	Grade Holstein.....	3	March, 1906.....	4	2,640	85·5
	9	" ".....	3	" 1906.....	4	2,725	95·9
	7	" ".....	7	" 1906.....	4	3,265	97·7
	2	" ".....	2½	" 1906.....	4	3,260	100·0
	1	Grade Ayrshire.....	7	" 1906.....	4	3,590	103·5
	8	Grade Holstein.....	5	" 1906.....	4	3,270	107·4
	5	Grade Ayrshire.....	3	" 1906.....	4	3,280	109·2
	4	Grade.....	8	" 1906.....	4	3,760	120·3
	10	" ".....	7	" 1906.....	4	3,385	123·9
14	3	Durham.....	14	July 22, 1906.....	4	3,785	143·7
	5	" ".....			5	3,145	99·7
	10	Holstein.....	3	October, 1905.....	6	2,910	80·9
	17	" ".....	8	March, 1905.....	6	3,725	110·6
	13	" ".....	6	May 11, 1906.....	6	5,190	219·8
	18	Ayrshire.....	8	" 15, 1906.....	6	7,705	268·4
	4	Durham.....	4	April 21, 1906.....	7	5,555	188·8
	6	Holstein.....	6	" 18, 1906.....	7	6,440	188·9
	12	" ".....	6	" 25, 1906.....	7	7,387	263·0
	9	" ".....	3	" 13, 1906.....	8	5,459	182·2
	14	" ".....	8	" 13, 1906.....	8	7,273	211·8
	7	" ".....	6	March 30, 1906.....	8	7,365	220·8
	1	" ".....	3	" 12, 1906.....	8	6,735	228·9
	2	Ayrshire-Holstein.....	9	February 26, 1906.....	8	8,000	267·3
	15	Holstein.....	9	March 26, 1906.....	8	10,070	273·5
	16	Durham.....	7	" 22, 1906.....	8	7,945	279·3
	11	Holstein.....	13	April 2, 1906.....	8	7,195	285·0
	8	" ".....	10	March 24, 1906.....	8	9,660	327·3

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TABLE XII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORTH OXFORD, ONT.
—Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
15	2	"Scrub".....	9	March 27, 1906.....	6	3,840	123.5
	3	Ayrshire.....	7	" 24, 1906.....	6	4,330	152.6
	7	Grade, Jersey-Ayrshire.....	9	April, 1906.....	7	5,730	198.0
	4	Holstein-Jersey.....	4	" 6, 1906.....	8	4,835	159.5
	5	Holstein.....	2	" 7, 1906.....	9	4,690	147.3
	1	Ayrshire.....	8	March 25, 1906.....	9	5,595	188.9
	6	Guernsey.....	8	April 7, 1906.....	9	6,885	244.6
16	13	Gr. Durham.....		" 25, 1906.....	5	4,340	162.2
	17	Gr. Holstein.....		May 2, 1906.....	5	4,870	173.3
	19	Registered Holstein.....	5	March 27, 1906.....	5	6,750	224.2
	7	Gr. Durham.....	4	April 26, 1906.....	6	4,616	147.1
	8	".....	4	" 23, 1906.....	6	5,390	199.1
	15	".....	2	March 19, 1906.....	7	3,910	130.3
	18	Registered Holstein.....	5	April 2, 1906.....	7	5,710	153.3
	16	Gr. Holstein.....	2	March 26, 1906.....	7	4,340	158.7
	3	Gr. Durham.....	10	" 20, 1906.....	7	5,430	158.9
	12	".....	7	" 24, 1906.....	7	5,620	164.3
	6	Gr. Holstein.....	14	April 3, 1906.....	7	4,930	166.9
	14	".....	4	March 21, 1906.....	7	5,050	167.2
	10	Gr. Durham.....	5	April 17, 1906.....	7	5,250	167.3
	9	".....	5	March 20, 1906.....	7	5,130	170.8
	1	Durham.....	5	" 20, 1906.....	7	6,020	192.8
	11	Gr. Durham.....	5	" 22, 1906.....	7	5,590	193.1
	5	".....	15	" 26, 1906.....	7	6,240	194.6
	4	Gr. Holstein.....	11	" 21, 1906.....	7	5,930	202.3
	2	Gr. Durham.....	10	" 21, 1906.....	7	5,580	209.1
17	9	Gr. Holstein.....	12		4	3,385	102.1
	11	Gr. Jersey.....	6		4	2,945	109.8
	8	Gr. Holstein.....	12		4	3,000	113.8
	10	Gr. Durham.....	3		5	2,595	82.9
	3	".....	2		5	2,655	83.2
	4	".....	2		5	2,700	83.8
	17	Gr. Holstein.....	3		5	2,730	91.9
	18	".....	3		5	2,980	98.0
	12	Gr. Jersey.....	6		5	3,585	120.4
	14	Gr. Holstein.....	7		5	3,860	121.2
	15	".....	7		5	4,310	123.7
	13	".....	7		5	3,735	130.5
	7	".....	7		5	4,780	134.5
	16	Gr. Durham.....	6		5	3,980	136.5
	6	Gr. Ayrshire.....	13		5	5,005	142.1
18	2	Gr. Holstein.....	13	July 18, 1906.....	4	4,279	129.8
	12	Gr. Durham.....	3	April 12, 1906.....	6	2,440	78.4
	8	".....	15	June 5, 1906.....	6	2,744	89.9
	20	Gr. Jersey-Durham.....	2	" 12, 1906.....	6	2,780	102.9
	19	Gr. Durham-Holstein.....	2	April 19, 1906.....	7	2,235	70.6
	15	Gr. Holstein.....	3	May 4, 1906.....	7	3,600	119.5
	6	Gr. Durham.....	5	" 7, 1906.....	7	5,145	163.5
	18	Gr. Holstein.....	2	April 19, 1906.....	8	4,135	128.2
	14	".....	3	" 6, 1906.....	8	4,330	137.7
	13	".....	3	" 12, 1906.....	8	4,625	149.3
	4	".....	5	" 1, 1906.....	8	5,090	151.7
	7	Gr. Durham.....	6	" 15, 1906.....	8	4,305	159.7
	10	".....	9	January 3, 1906.....	8	4,625	161.8
	17	Guernsey.....	7	March 27, 1906.....	8	4,565	170.2
	3	Gr. Holstein.....	5	" 18, 1906.....	8	5,670	178.0
	9	Gr. Jersey.....	7	" 28, 1906.....	8	5,305	188.3
	5	Gr. Holstein.....	6	" 31, 1906.....	8	6,710	202.9
	11	".....	4	April 19, 1906.....	8	6,160	204.4

The accompanying three pairs of illustrations of cows are photographs of six animals in three herds in the North Oxford Association whose individual records are respectively the highest and lowest in each herd during the period tested. It will be interesting to study the appearance of each pair while comparing their yields of milk and butter fat.

These photographs were taken in May, 1907, as this report goes to press.



FIG I.—Cross-bred Ayrshire-Jersey Cow No. 9 in herd 10, North Oxford Association, calved March 25, age 4; yield 6,570 lbs. milk in 9 months, 262·2 lbs. fat.

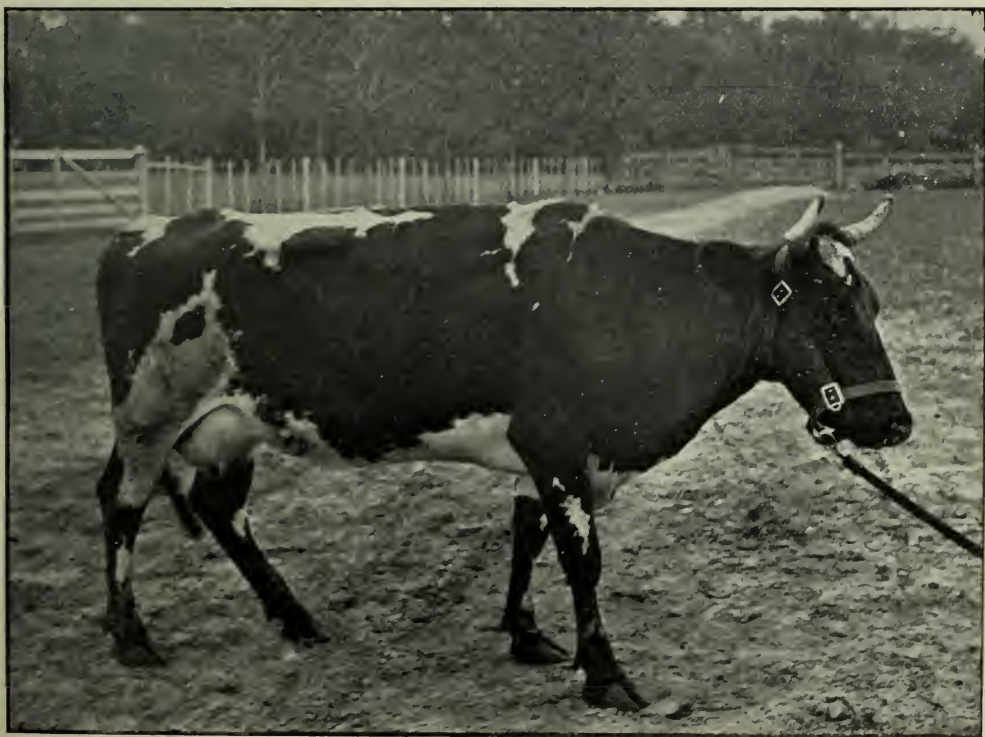


FIG II.—Grade Ayrshire Cow, No. 8, in herd 10, North Oxford Association, calved March 31, age 4; yield 4,590 lbs. milk in 9 months, 164·2 lbs. fat.



FIG I.—Common grade, No. 3, in herd 12, North Oxford Association, calved March 22, age 9 ;
yield 5,390 lbs. milk in 7 months, 240·8 lbs. fat.

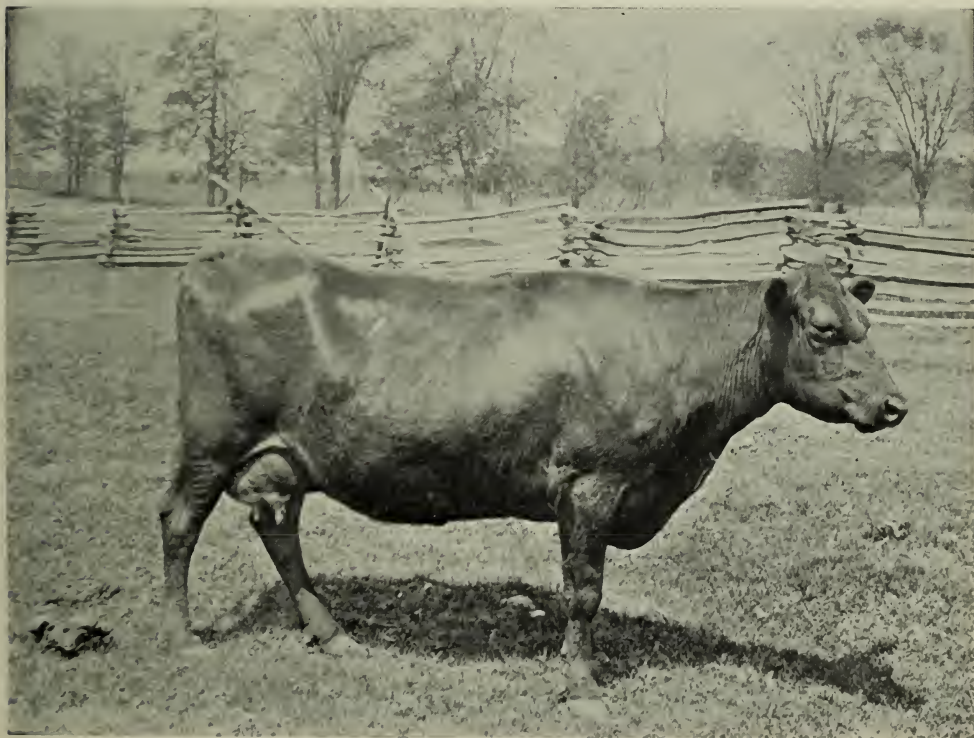


FIG II.—Common grade cow, No. 6 in herd 12, North Oxford Association. Calved March 9,
age 11 ; yield 4,290 lbs. milk in 7 months, 146 lbs. fat.



FIG I.—Holstein Cow No. 8, in herd 14, North Oxford Association, calved March 24, Age 10 ;
yield 9660 lbs. milk in 8 months, 3273 lbs. fat.



FIG II.—Holstein Cow No. 14, in herd 14, North Oxford Association, calved April 13, age 8 ;
yield 7,273 lbs. milk in 8 months, 211·8 lbs. fat.



Holstein Cow, No. 25 in herd 2, North Oxford Association. Record as a two-year-old 11,155 lbs. milk, 379.2 lbs. fat. Value of milk \$115.54.

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TABLE XIII.—SHRINKAGE IN MILK; TWO HERDS: NORTH OXFORD, ONT.

Herd A, 16 cows, Average Yield of Milk.		Herd B, 15 cows, Average Yield of Milk.	
lb.	1906.	lb.	
1,024	June.....	831	
812	July.....	865	
633	August.....	606	
631	September.....	703	
Total.....	3,160	Total.....	3,005
Shrinkage...	33 %	Shrinkage....	15 %
Four Months.....			

Table XIII illustrates in a striking manner the difference in shrinkage of milk between two herds in the North Oxford association. In herd A the September average yield was 38 per cent less than the June yield of milk, but in herd B the shrinkage was only 15 per cent. If in herd A the shrinkage had been only 15 per cent the owner would have had 3,840 pounds of milk more from the same cows in September alone, or nearly \$38 more income. The owner of herd A admits that his cows did not receive as good attention or as much feed as usual. Neglect is costly. The owner of herd B states: 'We are careful to milk regularly at the same times every day, letting nothing interfere with milking. We fed a little oat chop all through the season until the corn was ready. We are generally the first to stable the cows in the fall and the last to turn out in the spring.' Such careful attention pays well.

TABLE XIV.—AVERAGE YIELDS OF 30 DAY PERIODS, COWANSVILLE, QUE., 1906.

30 Days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
Jan.....	36	520	4.1	21.6
Feb.....	60	524	4.1	21.8
Mar.....	104	563	3.7	21.3
April 23.....	261	561	3.4	19.6
May 22.....	373	566	3.6	20.9
June 22.....	414	646	3.7	24.4
July 22.....	391	582	3.8	22.5
Aug. 23.....	400	468	4.0	19.1
Sept. 21.....	311	421	4.2	17.8
Oct. 26.....	205	383	4.3	16.5
Nov. 25.....	158	305	4.6	14.3
Dec. 27.....	96	335	4.9	16.5

Cowansville, Que.

The testing by the Department has been available for the full 12 months at every centre where an association was organized. In the vicinity of Cowansville are some farmers who ship cream daily all winter to Montreal, 57 miles distant. Thus, with a fair proportion of cows coming in fresh through the winter months, it might reasonably be expected that a liberal advantage would be taken of the opportunity for free testing. A fair number of men sent samples for eight and nine months, only a few for ten, eleven and twelve months. It is hoped that as the value of this systematic weighing and testing becomes more apparent to dairy farmers, a greatly increased number of samples will be sent in.

Looking at the records of milk produced in 9 months, it is found that the highest yield in herd 4 is from the 4-year-old cow No. 9, giving 4,910 pounds, while in herd 13 the 7-year-old cow No. 2 gave 6,960 pounds, or 2,050 pounds more. In herd 6 is a 5-year-old cow giving only 3,335 pounds of milk in the 9 months, throwing into strong relief the fact that the 5 cows in herd 13, milking 9 months, average 6,696 pounds each, or more than double.

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For the same period of 9 months, the contrast in yield of fat is still greater. Herd 13 is still easily ahead, the production running from 226 to 262 pounds of fat per cow; but in others it runs no higher than 146 pounds as the best yield of any one cow in the herd, and drops as low as 123 pounds from a 5-year-old-cow. Amongst those milking 10 and 11 months, herds 13, 28 and 31 have some good individual yields of 236, 243 and 203 pounds of fat, while herd 27 has a record breaker in the 6-year-old half Jersey cow No. 4 giving 8,830 pounds of milk containing 400·4 pounds of fat. Such gratifying amounts are the result of definite breeding for a purpose and judicious feeding, as opposed to random methods.

The records of herd 19 furnish a telling illustration of the difference in yield from animals in the same herd. In one month there was a difference between 2 animals of 386 pounds of milk and 12 pounds of fat, and in 10 herds the difference runs over 200 pounds of milk. It is not simply the 2-year-old heifers or farrow cows that are responsible for the low yields. Frequently the 5, 6 and 8-year-olds, or over, are the defaulters. In herd 20 it may be noticed that the 2-year-old heifer No. 14 is ahead, in the matter of fat production, of 4 others older than herself, all freshening in the spring of 1906. This points again to the individuality of an animal and the necessity for its study.

In herd 4, cow No. 8, a 4-year-old, gives 210·1 pounds of fat in 8 months; but cow No. 4, 8 years old, gives only 139·9 pounds in 9 months. Similarly, in herd 6 notice 154·1 pounds of fat in 8 months and only 123·4 pounds in 9 months.

In herd 3 the five cows tested 7 months give a total yield of 13,012 pounds of milk; but in herd 12 five cows in 7 months have to their credit a production of 18,192 pounds.

TABLE XV.--TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
3	1	'Scrub' .....	.....	March 2, 1906..	5	1,750	61·7
	5	" .....	.....	April 22, 1906..	5	2,350	85·5
	6	" .....	.....	May 13, 1906..	6	2,495	85·8
	8	Grade Jersey	4	April 25, 1906..	6	2,375	95·5
	7	Grade Guernsey	4	" 20, 1906..	7	1,767	66·1
	10	'Scrub' .....	.....	June 1, 1906..	7	2,755	99·5
	2	" .....	.....	April 15, 1906..	7	2,850	105·7
	9	" .....	.....	" 25, 1906..	7	2,265	110·4
	4	" .....	.....	" 24, 1906..	7	3,375	124·0
	3	" .....	.....	" 15, 1906..	8	3,020	117·5
4	14	Grade	2	" 5, 1906..	7	2,630	106·1
	15	"	2	" 7, 1906..	7	2,730	110·9
	6	"	9	" 6, 1906..	8	4,860	166·2
	7	"	7	" 12, 1906..	8	4,720	194·9
	8	"	4	" 25, 1906..	8	5,331	210·1
	13	"	3	March 10, 1906..	9	3,920	135·3
	4	"	8	" 13, 1906..	9	3,745	139·9
	12	"	3	" 16, 1906..	9	4,080	146·4
	11	"	4	" 9, 1906..	9	3,858	156·1
	1	"	5	" 12, 1906..	9	4,260	160·4
	10	"	4	" 20, 1906..	9	4,250	163·1
	5	"	8	" 16, 1906..	9	4,690	164·8
	2	"	9	" 6, 1906..	9	4,874	178·6
	3	"	11	Feb. 20, 1906..	9	4,850	186·0
	9	"	4	" 26, 1906..	9	4,910	193·5
6	2	"	14	April 19, 1906..	6	2,130	80·6
	7	Grade Jersey	4	May 24, 1906..	7	2,432	104·1
	4	Grade Durham	9	" 19, 1906..	7	4,090	146·9
	8	"	4	March 8, 1906..	8	2,850	110·2
	9	Grade Jersey	4	" 19, 1906..	8	2,920	116·7

TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
6	6	Grade Durham.....	8	March 17, 1906..	8	4,310	154.1
	1	"	5	" 19, 1906..	9	3,335	123.4
	5	"	9	" 17, 1906..	9	3,652	143.6
	3	Grade Jersey.....	5	April 2, 1906..	9	3,902	146.4
7	4	Grade Ayrshire.....	4	July 20, 1906..	5	2,575	97.0
	9	Grade Durham.....	8	April 26, 1906..	6	3,760	119.2
	5	Grade Jersey.....	14	March 2, 1906..	6	3,065	128.1
	6	Grade Holstein.....	14	May 15, 1906..	7	3,705	138.4
	3	Grade Ayrshire.....	9	Feb. 23, 1906..	7	4,570	161.2
	10	Grade Durham.....	8	April 23, 1906..	8	4,210	159.3
	7	Grade Ayrshire.....	6	" 7, 1906..	8	4,417	181.9
	2	"	2	Feb. 28, 1906..	9	2,900	114.1
	1	"	3	March 26, 1906..	9	3,280	162.2
	8	"	6	" 22, 1906..	9	4,470	181.0
8	9	Ayrshire.....	7	May 9, 1906..	7	3,880	146.4
	11	"	6	June 14, 1906..	7	4,410	171.8
	8	"	2	April 1, 1906..	9	2,330	110.6
	13	Holstein.....	3	" 17, 1906..	9	3,058	130.9
	14	Ayrshire.....	5	March 29, 1906..	9	4,010	156.6
	5	"	13	" 26, 1906..	9	3,920	158.0
	1	"	5	April 2, 1906..	9	5,410	194.7
	4	"	13	" 5, 1906..	9	5,460	208.8
	12	"	4	March 10, 1906..	10	4,812	187.0
	3	"	12	May 22, 1906..	10	4,950	190.7
	6	"	8	March 16, 1906..	10	5,205	199.2
	10	"	7	" 17, 1906..	10	5,098	202.9
9	14	Grade Guernsey.....	2	July 10, 1906..	6	2,435	106.8
	12	"	4	June 25, 1906..	6	3,640	161.2
	13	"	9	" 30, 1906..	6	4,135	193.0
	11	"	6	" 6, 1906..	7	3,530	142.6
	10	"	3	" 5, 1906..	7	3,690	146.9
	9	"	3	May 10, 1906..	8	4,545	182.9
	7	"	2	March 27, 1906..	9	3,110	134.7
	3	"	3	" 18, 1906..	9	3,920	135.2
	16	"	9	Jan. 1, 1906..	9	4,135	167.6
	5	"	4	March 27, 1906..	9	5,155	186.2
	1	"	6	March 18, 1906..	9	5,120	188.5
	8	"	9	April 5, 1906..	9	5,760	196.1
	2	"	9	March 15, 1906..	9	4,925	212.0
	6	"	8	Feb. 23, 1906..	9	5,160	221.4
	4	"	6	March 18, 1906..	9	5,095	223.5
10	25	"	4	May 10, 1906..	4	2,470	71.9
	22	"	6	" 10, 1906..	4	2,418	79.9
	15	"	10	April 16, 1906..	4	2,395	90.1
	20	"	2	" 9, 1906..	5	1,810	72.9
	19	"	7	" 1, 1906..	5	2,595	108.2
	1	Grade Holstein.....	7	March 14, 1906..	5	3,040	110.4
	12	"	4	" 20, 1906..	6	2,390	86.2
	18	Grade Ayrshire.....	8	" 20, 1906..	6	2,705	95.3
	17	"	6	" 21, 1906..	6	3,010	103.0
	8	Grade Holstein.....	5	" 13, 1906..	6	3,095	104.1
	11	"	12	" 4, 1906..	6	3,085	110.7
	4	Grade Jersey.....	5	Feb. 26, 1906..	6	2,720	116.0
	14	" Ayrshire.....	9	March 14, 1906..	6	3,190	116.6
	16	" Jersey.....	4	" 16, 1906..	6	3,000	119.9
	6	" Holstein.....	9	Feb. 18, 1906..	6	3,310	120.8
	9	" Ayrshire.....	9	March 9, 1906..	6	3,315	120.8
	24	"	7	May 14, 1906..	6	3,335	123.2
	7	Grade Ayrshire.....	5	March 21, 1906..	6	3,460	128.3
	10	"	7	" 13, 1906..	6	3,545	128.8
	5	Grade Ayrshire.....	7	" 1, 1906..	6	4,070	140.0
	13	" Jersey.....	5	Feb. 20, 1906..	6	3,160	145.6

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TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
12	11	.....	.....	March 27, 1906..	4	1,570	43.1
	4	.....	.....	" 19, 1906..	4	1,270	51.6
	26	.....	.....	May 10, 1906..	5	3,085	111.9
	3	.....	.....	April 21, 1906..	5	2,980	116.1
	8	.....	.....	May 13, 1906..	5	3,060	123.3
	19	.....	.....	" 1, 1906..	5	3,885	124.3
	35	.....	.....	April 5, 1906..	6	2,850	114.7
	12	.....	.....	.....	6	2,940	118.9
	33	.....	.....	March 29, 1906..	6	3,230	122.1
	21	.....	.....	April 21, 1906..	6	3,350	125.5
	30	.....	.....	March 28, 1906..	6	3,485	127.9
	7	.....	.....	April 10, 1906..	7	3,528	114.6
	22	.....	.....	March 26, 1906..	7	3,090	116.0
	5	.....	.....	.....	7	3,300	118.4
	13	.....	.....	Feb. 1, 1906..	7	2,985	119.7
	16	.....	.....	April 5, 1906..	7	4,074	131.6
	6	.....	.....	March 28, 1906..	7	3,510	133.3
	31	.....	.....	.....	7	4,045	133.5
	29	.....	.....	April 2, 1906..	7	3,607	135.9
	27	.....	9	March 28, 1906..	7	3,235	138.2
	23	.....	.....	April 11, 1906..	7	3,550	142.8
	28	.....	.....	" 5, 1906..	7	3,755	155.1
	34	.....	.....	March 22, 1906..	8	3,427	131.9
	20	.....	.....	Nov. 21, 1905..	8	3,875	146.7
	15	.....	.....	Feb. 1, 1906..	9	3,535	127.1
	18	.....	.....	" 1, 1906..	9	3,985	131.6
13	11	Jersey.....	12	March 1905..	4	980	54.8
	25	Ayrshire.....	4	April 1903..	5	3,120	111.1
	23	".....	11	May 1906..	5	3,820	135.9
	13	".....	7	Dec. 1905..	6	3,820	127.4
	19	".....	2	May 1906..	7	2,450	93.0
	15	Jersey.....	3	April 1906..	7	2,970	131.4
	21	".....	3	" 1906..	7	2,900	133.3
	27	Ayrshire.....	5	May 1906..	7	3,450	146.1
	7	Grade Ayrshire.....	4	" 1906..	7	3,820	158.4
	14	Ayrshire.....	12	Nov. 1905..	7	5,410	174.8
	5	".....	7	May 1906..	7	5,340	213.5
	9	Grade Ayrshire.....	6	Sept. 1905..	8	4,500	177.5
	17	Ayrshire.....	10	April 1906..	8	5,960	185.8
	16	Jersey.....	3	" 1906..	8	4,440	186.6
	8	Grade Ayrshire.....	6	June 1905..	8	4,650	192.3
	1	Grade Jersey.....	14	Dec. 1905..	8	4,200	212.9
	10	Ayrshire.....	8	March 19, 1906..	8	4,950	214.7
	4	Grade Ayrshire.....	6	June 1905..	8	5,040	214.8
	20	Ayrshire.....	7	Feb. 1906..	8	6,240	248.7
	2	Grade Ayrshire.....	7	" 1906..	9	6,960	226.4
	12	Ayrshire.....	10	Dec. 1905..	9	6,940	239.8
	22	".....	7	April 1906..	9	6,490	237.4
	3	Grade Ayrshire.....	7	Nov. 1905..	9	6,820	259.1
	24	Ayrshire.....	10	May 1906..	9	6,270	262.0
	18	".....	6	March 1906..	10	5,900	236.0
	26	".....	6	April 1906..	10	6,320	241.2
	6	Grade Ayrshire.....	7	Oct. 1905..	11	6,200	263.0
14	17	.....	2	June 5, 1906..	4	2,130	78.7
	15	Grade Ayrshire.....	9	Farrow.....	4	1,880	79.4
	16	".....	8	June 5, 1906..	4	2,660	100.8
	14	".....	2	May 15, 1906..	5	1,834	71.0
	10	".....	3	April 30, 1906..	5	2,466	82.5
	11	".....	3	" 30, 1906..	5	2,355	85.2
	8	".....	3	" 27, 1906..	5	2,284	87.9
	12	".....	3	May 3, 1906..	5	2,390	91.3

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TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Bred.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
14	6	Grade Ayrshire	5	April 22, 1903..	5	2,660	103.3
	7	"	3	" 25, 1906..	5	2,336	103.6
	5	Grade Jersey	4	" 20, 1906..	5	2,620	107.6
	9	"	5	" 28, 1906..	5	2,525	110.4
	13	Grade Ayrshire	9	May 5, 1906..	5	3,552	131.9
	3	Ayrshire	8	Feb. 21, 1906..	6	2,950	108.6
	4	Grade Ayrshire	3	April 12, 1906..	6	2,290	112.4
	1	Grade Holstein	8	" 8, 1906..	6	4,565	142.1
	2	"	9	" 6, 1903..	6	4,527	166.8
15	14	Grade Ayrshire	3	March 19, 1905..	4	1,050	42.1
	16	Grade Holstein	6	Slinker.	4	1,355	47.6
	6	Grade Ayrshire	7	"	4	1,530	55.1
	3	"	4	Farrow.	4	1,255	56.4
	2	"	8	March 10, 1906..	4	1,355	56.8
	25	"	9	" 24, 1906..	4	1,645	57.2
	30	"	9	" 26, 1906..	4	1,715	57.2
	4	"	6	" 1905..	4	1,475	58.0
	33	Grade Holstein	7	March 20, 1906..	4	1,749	61.3
	40	Grade Ayrshire	7	April 1903..	4	1,690	62.9
	1	"	7	" 2, 1905..	4	1,595	64.0
	23	Grade Holstein	7	March 22, 1906..	4	1,960	64.1
	29	Grade Durham	6	April 14, 1906..	4	1,870	64.6
	5	Grade Holstein	6	" 1906..	4	1,695	64.8
	32	Grade Ayrshire	8	" 4, 1906..	4	1,860	65.0
	22	"	8	March 11, 1906..	4	1,710	65.8
	35	Grade Durham	4	" 17, 1906..	4	1,770	66.9
	31	"	6	March 10, 1906..	4	1,785	67.9
	21	Grade Holstein	4	" 17, 1906..	4	1,630	69.3
	24	"	8	" 3, 1906..	4	2,185	70.8
	27	Grade Ayrshire	8	April 6, 1906..	4	2,055	71.3
	34	Grade Durham	6	" 2, 1906..	4	2,205	71.5
	9	"	8	" 7, 1906..	4	2,155	72.6
	8	Grade Holstein	9	March 14, 1905..	4	1,905	74.4
	36	Grade Ayrshire	5	April 10, 1906..	4	2,060	74.7
	7	Grade Holstein	8	March 10, 1906..	4	2,345	78.1
	10	"	9	" 20, 1906..	4	1,935	78.7
	28	"	7	" 30, 1906..	4	2,175	78.8
	26	Grade Ayrshire	7	" 26, 1906..	4	2,345	79.3
	13	Grade Holstein	6	Slinker.	4	2,470	79.5
	37	Grade Ayrshire	6	April 17, 1906..	4	2,020	82.1
	39	"	5	March 18, 1906..	4	2,130	82.1
	11	"	9	April 16, 1906..	4	2,620	82.5
	38	"	6	" 16, 1906..	4	2,160	89.0
	15	"	6	" 3, 1906..	4	2,130	98.4
19	18	.....			5	2,250	80.4
	1	.....			7	1,660	67.3
	17	.....			7	2,370	85.4
	5	.....			7	3,120	105.1
	3	.....			7	2,890	112.4
	2	.....			7	3,100	115.1
	6	.....			7	2,780	116.9
	15	.....			7	3,840	125.3
	13	.....			7	3,400	125.9
	4	.....			7	3,050	128.5
	8	.....			7	2,660	139.9
	16	.....			7	3,550	139.9
	14			7	3,910	149.1
	7			7	3,240	150.3
	12			7	4,260	151.6
	9			7	3,420	153.0
	10			7	3,770	158.4
	11			7	4,040	163.2

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TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
20	18	Grade Jersey	7	June 9, 1906..	4	2,192	103.1
	23	Durham	7	Feb. 12, 1906..	5	1,614	58.6
	11	Jersey	4	April 22, 1906..	5	2,559	105.9
	12	Grade Jersey	4	" 29, 1906..	5	2,670	107.7
	3	"	3	" 23, 1906..	5	2,260	111.3
	13	"	15	March 11, 1906..	6	2,215	75.4
	16	Jersey	2	" 1906..	6	1,780	80.3
	22	Ayrshire	3	" 1906..	6	2,120	96.8
	10	Grade Ayrshire	6	" 11, 1906..	6	2,870	105.9
	15	Ayrshire	8	April 5, 1906..	6	2,508	103.2
	17	Grade Ayrshire	6	" 1906..	6	2,910	106.2
	28	Jersey	6	March 1906..	6	2,840	118.4
	25	Ayrshire	9	April 5, 1906..	6	3,150	129.1
	30	Ayrshire-Jersey	3	May 1905..	7	1,510	59.8
	21	Ayrshire-Durham	5	" 1905..	7	1,670	71.1
	20	Grade Ayrshire	3	March 11, 1906..	7	2,640	98.7
	4	Pure Jersey	7	Feb. 7, 1906..	7	2,250	114.9
	26	Grade Jersey	15	May 8, 1906..	7	2,891	118.1
	24	Grade Devon	7	March 2, 1906..	7	3,321	121.1
	14	Grade Jersey	2	" 9, 1905..	7	2,666	122.0
	6	Grade Ayrshire	6	Nov. 30, 1905..	7	3,110	131.2
	27	Grade Jersey	4	March 8, 1906..	7	3,015	132.6
	29	Grade Ayrshire	6	Feb. 26, 1906..	7	3,130	133.5
	8	Grade Jersey	8	March 1, 1906..	7	3,320	147.7
	19	"	6	Feb. 15, 1906..	8	2,608	105.6
	1	$\frac{3}{4}$ Jersey	4	Nov. 22, 1905..	8	2,710	124.0
	2	Grade Jersey	4	Jan. 19, 1906..	8	2,870	133.1
	5	"	9	Dec. 27, 1905..	9	3,650	188.3
21	14	"	4	May 12, 1906..	5	2,060	83.1
	15	"	12	" 17, 1906..	5	2,530	99.6
	16	"	9	" 21, 1906..	5	2,695	106.9
	11	Grade	2	April 13, 1906..	6	1,825	73.9
	13	"	10	May 3, 1906..	6	2,930	116.2
	10	"	6	April 10, 1906..	6	2,850	117.4
	12	"	7	" 27, 1906..	6	3,320	134.1
	4	Grade Jersey	9	March 9, 1906..	7	2,585	101.8
	9	Grade	10	" 22, 1906..	7	3,000	114.7
	8	"	10	" 21, 1906..	7	3,160	133.1
	6	Grade Jersey	8	" 16, 1906..	8	2,965	117.5
	2	Grade	5	" 1, 1906..	8	3,175	119.3
	5	Grade Jersey	3	" 21, 1906..	8	3,185	130.5
	1	Grade Holstein-Jersey	9	April .., 1905..	8	3,310	135.4
	7	Grade	5	March 16, 1906..	8	3,880	162.0
	3	"	6	" 7, 1906..	8	4,440	164.1
23	8	"			4	2,020	69.8
	12	"	3	March 9, 1906..	4	2,080	73.9
	14	"			4	2,290	74.8
	16	"		March 11, 1906..	4	2,216	77.4
	9	"		" 10, 1906..	4	2,140	84.0
	13	"		" 8, 1906..	4	2,752	84.1
	18	"		" 7, 1906..	4	2,467	84.7
	7	"		" 10, 1906..	4	2,492	86.4
	5	Ayrshire	3	Jan. 1, 1906..	6	3,093	99.6
25	4	"	7	Dec. 10, 1905..	6	3,560	118.6
	11	Grade Holstein	2	April 19, 1906..	5	2,640	87.7
	10	Grade Jersey	3	" 14, 1906..	6	2,835	104.6
	12	Grade Ayrshire	5	" 24, 1906..	6	3,275	134.5
	8	Grade Durham	3	March 30, 1906..	7	3,355	101.7
	9	Grade Jersey	3	April 1, 1906..	7	3,550	123.6
25	6	Grade Holstein	5	March 17, 1906..	7	4,200	124.7

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TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
25	7	Grade Jersey....	7	" 23, 1906..	7	3,710	153.4
	4	"	4	Feb. 2, 1906..	8	4,530	153.4
	2	"	6	Dec. 14, 1905..	9	3,500	158.2
	1	"	10	" 6, 1905..	9	4,350	167.6
	3	Grade Holstein	9	Jan. 24, 1906..	9	6,945	191.1
27	1	Grade	9	May 2, 1905..	7	3,685	154.4
	13	½ Jersey	4	Feb. 26, 1906..	8	5,210	222.0
	12	"	6	" 1, 1906..	8	5,270	261.5
	16	"	2	April 15, 1906..	9	4,050	174.5
	13	Jersey	2	March 31, 1906..	9	4,505	206.3
	21	"	3	{ May 9, 1905 Nov. 4, 1906 }	10	3,935	222.8
	9	½ Jersey	7	Feb. 1, 1906..	10	6,120	264.1
	2	Half Jersey	10	{ March 17, 1905 " 21, 1906 }	10	8,095	375.7
	4	"	6	Feb. 26, 1906..	10	8,830	400.4
	6	Grade Jersey	3	{ April 22, 1905 Sept. 21, 1906 }	11	4,370	210.0
	19	Jersey	4	{ " 5, 1905 Oct. 10, 1906 }	11	3,610	219.2
	14	Grade Jersey	5	Jan. 30, 1906..	11	5,985	268.1
	3	"	5	{ Aug. 24, 1905 Oct. 21, 1906 }	11	5,090	276.5
	17	Jersey	4	{ April 14, 1905 Oct. 5, 1906 }	11	5,735	281.3
	15	"	4	{ April 7, 1905 Oct. 2, 1906 }	11	6,045	294.4
	11	Half Jersey	11	{ Dec. 17, 1905 Oct. 31, 1906 }	11	8,810	336.2
	8	Jersey	8	{ Jan. 15, 1906 Dec. 22, 1906 }	11	6,990	355.4
	5	Half Jersey	9	{ Nov. 15, 1905 Oct. 19, 1906 }	11	8,275	408.6
	10	Jersey	2	{ Nov. 1, 1905 Oct. 9, 1906 }	12	4,190	209.5
	20	Half Jersey	3	{ March 7, 1905 " 17, 1906 }	12	4,595	210.9
	22	"	5	Nov. 22, 1905..	12	5,100	300.7
	7	"	7	{ Nov. 9, 1905 Oct. 22, 1906 }	12	5,620	305.8
28	12	Guernsey	3	Aug. 1, 1906..	4	2,765	119.3
	2	"	8	March 3, 1905..	5	1,450	55.1
	22	Ayrshire	3	Aug. 9, 1905..	8	2,880	105.6
	9	Pure Guernsey	3	June 25, 1906..	8	2,695	122.9
	15	Grade Durham	4	April 9, 1906..	8	3,430	151.1
	6	Pure Guernsey	5	{ Feb. 19, 1905 June 10, 1906 }	8	3,560	155.3
	14	Guernsey	2	April 13, 1906..	9	1,925	87.4
	13	"	2	" 19, 1906..	9	2,648	120.8
	11	"	2	" 12, 1906..	9	2,870	140.0
	5	"	9	March 23, 1906..	9	3,490	152.1
	7	"	5	" 22, 1906..	9	3,405	153.3
	20	French Grade..	7	Feb. 18, 1906..	9	4,755	177.1
	17	"	7	April 14, 1906..	9	4,195	201.3
	10	Guernsey	4	{ March 25, 1905 April 6, 1906 }	10	3,565	166.9
	8	"	4	March 15, 1906..	10	3,950	189.1
	21	'Scrub'	8	" 11, 1906..	10	5,065	191.6
	18	French Grade	6	" 7, 1906..	10	4,586	195.2
	23	Ayrshire	9	Feb. 25, 1905..	10	6,125	243.1

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TABLE XV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, COWANSVILLE, QUE.
—Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
28	1	Guernsey.....	6	{ Aborted Dec., 1905	11	3,915	187·0
	19	French Grade.....	7	{ Aborted May, 1905	11	4,635	190·8
29	5	.....			5	1,650	75·5
	6	.....			5	2,400	88·8
	12	.....			6	1,755	78·0
	8	.....			6	1,865	85·8
	11	.....			6	2,110	93·6
	10	.....			6	2,730	104·9
	9	.....			7	2,080	85·6
	3	.....			7	2,400	102·4
	7	.....			7	2,615	104·4
	4	.....			7	2,020	106·1
	1	.....			7	3,100	137·6
	2	.....			7	3,425	139·2
31	4	Grade Holstein.....	5	Aug. 18, 1905.	5	2,140	69·9
	19	Grade Jersey.....	5	June 30, 1906..	6	2,550	120·6
	18	Grade Holstein.....	3	" 8, 1906..	7	3,500	125·3
	13	Grade Jersey.....	7	March 24, 1906..	7	4,020	160·4
	17	Grade Holstein.....	8	May 15, 1906..	8	4,416	155·1
	5	".....	4	Aug. 23, 1905..	9	4,020	140·6
	16	Grade Jersey.....	7	April 7, 1906..	9	3,640	156·1
	3	Grade Holstein.....	5	Aug. 17, 1905..	9	4,240	163·4
	12	".....	7	March 13, 1906..	9	5,290	190·5
	14	".....	6	" 29, 1906..	9	4,700	192·3
	15	Grade Jersey.....	8	April 3, 1906..	9	5,290	207·0
	1	Grade Holstein.....	5	May 25, 1906..	10	4,564	161·6
	8	Reg. Holstein.....	3	Jan. 8, 1906..	10	5,430	162·3
	9	Grade Holstein.....	5	Feb. 8, 1906..	10	5,210	175·1
	11	Grade.....	11	March 7, 1906..	10	4,930	175·3
	10	Grade Holstein.....	5	Feb. 17, 1906..	10	5,220	179·7
	2	".....	7	Aug. 16, 1905..	10	4,760	203·8
	6	".....	6	Sept. 9, 1905..	11	3,870	185·5
32	23	.....	5	March 29, 1906..	4	2,370	80·4
	21	.....	4	" 22, 1906..	4	2,655	83·0
	20	.....	4	" 22, 1906..	4	2,745	89·7
	22	.....	6	" 25, 1906..	4	2,595	90·7
	18	.....	10	" 22, 1906..	4	3,045	104·1
	16	.....	10	" 17, 1906..	4	3,050	110·7
	19	.....	7	" 22, 1906..	4	3,340	112·0
	17	.....	8	" 22, 1906..	4	3,715	121·4
	24	.....	10	April 5, 1906..	4	3,965	129·6
	2	.....	6	Nov. 6, 1906..	5	2,995	98·9
	11	.....	5	Feb. 26, 19·6..	5	3,140	106·1
	10	.....	5	" 25, 1906..	5	3,485	114·8
	15	.....	7	March 14, 1906..	5	3,626	118·0
	12	.....	8	" 2, 1906..	5	3,682	122·0
	3	.....	8	Nov. 7, 1905..	5	3,220	125·9
	14	.....	10	March 12, 1906..	5	3,970	130·0
	4	.....	6	Nov. 8, 1905..	5	3,725	132·1
	9	.....	4	Feb. 10, 1906..	5	3,885	132·7
	7	.....	9	" 8, 1906..	5	3,685	133·0
	1	.....	10	Nov. 6, 1905..	5	3,460	134·2
	6	.....	10	Feb. 9, 1906..	5	3,620	137·9
	13	13	March 4, 1906..	5	4,493	153·0
	8	8	Feb. 17, 1906..	5	4,325	156·3
	5	7	Dec. 4, 1905..	5	4,675	165·7

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TABLE XVI. ANNUAL YIELDS—2 HERDS OF TEN GRADE COWS EACH,
COWANSVILLE, QUE.

	Grade Holsteins.			Grade Jerseys	
	lbs. milk.	lbs. fat.		Lbs. milk.	Lbs. fat.
April.....	6,480	208·2	April.....	7,900	346·2
May.....	6,486	219·1	May.....	7,575	335·2
June.....	7,050	255·2	June.....	7,300	354·6
July.....	6,220	237·0	July.....	6,380	297·0
August.....	5,240	208·1	August.....	4,900	247·3
September.....	4,960	184·9	September.....	3,295	161·9
Total.....	36,446	1,312·5	Total.....	37,350	1,742·2
October.....	3,430	134·6	October.....	3,575	169·5
November.....	1,860	92·8	November.....	5,680	259·5
December.....	890	48·0	December.....	5,430	292·2
January.....			January.....	4,250	204·4
February.....	1,750	53·0	February.....	6,635	308·8
March.....	3,670	112·9	March.....	6,940	308·6
Total.....	11,600	441·3	Total.....	32,510	1,543·0
<i>Paying by 100 lbs. milk.</i>			<i>Paying by 100 lbs. milk.</i>		
Winter: 11,600 at \$1.10.....	\$127 60		Winter: 32,510 at \$1.10.....	\$357 61	
Summer: 36,446 at 80c.....	291 57		Summer: 37,350 at 80c.....	298 80	
Total.....	\$419 17		Total.....	\$656 41	
Difference.....			Difference.....	\$237 24	
<i>Paying by fat.</i>			<i>Paying by fat.</i>		
Winter: 441 = 507 lbs. butter at 22c.....	\$115 54		Winter: 1,543 lbs. = 1,775 lbs. butter at 22c.	\$390 50	
Summer: 1,312 lbs. = 1,509 lbs. butter at 20c.	301 80		Summer: 1,742 lbs. = 2,004 " 20c.	400 80	
	\$417 34			\$791 30	
Difference.....			Difference.....	\$373 96	

The object of the figures in Table XVI. is to compare the annual return from two herds of grade cows in the Cowansville association. These herds were selected because it was noticed that the total yield of milk from each lot of 10 cows for the first six months was so close, 36,446 pounds and 37,350 pounds.

The yield for the second six months is widely different, 11,600 against 32,510 pounds.

Assuming that the milk is paid for by weight and allowing \$1.10 for winter and 80 cents per 100 pounds as the summer price, the herd of grade Jerseys earns \$237.24 more than the other herd during the year.

Again, assuming that the milk is paid for according to its fat content, and allowing 115 pounds of butter to 100 pounds of fat, and valuing butter at 22 cents for the winter six months, and 20 cents per pound for the summer six months, there is a net gain of \$373.96 of the one herd over the other.

Further, apart from the question of breed altogether, it should be noticed that the one man is evidently feeding and breeding for winter production when prices are highest. That it pays him well to so arrange matters is evidenced by the fact that the winter milk in the one case sells for \$230.01 more than in the other; or the winter fat from the one herd brings in \$274.96 more than the other. If any figures convey a lesson, surely these do.

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TABLE XVII.—DIFFERENCE BETWEEN INDIVIDUAL COWS IN THE SAME HERDS, COWANSVILLE, QUE.

Herd Number.	Number of Months Yield.	DIFFERENCE BETWEEN HIGHEST AND LOWEST YIELDS.		Age of Cow with Lowest Yield.
		Pounds of Milk.	Pounds of Fat.	
32	5	1,680	66·8	6
10	6	1,350	24·0	5
14	6	2,010	33·5	8
6	8	940	32·1	4
8	8	1,520	49·5	13
9	8	1,855	60·5	3
4	9	1,165	53·6	8
27	10	3,675	41·7	5

Table 17 emphasizes the point that the individuality of a cow must be considered in building up a profitable dairy herd. In 8 herds are shown the *differences* between the highest and lowest yields of milk and butter fat.

In herd 6 the best cow gave during 8 months 940 pounds of milk, containing 32·1 pounds of fat, *more* than the 4-year-old poorest cow. That difference, large enough as it is, is nearly doubled in herd 9, where the 3-year-old gives 60·5 pounds of fat less than the best cow.

In herd 27, the difference is 3,675 pounds of milk in ten months, while in herd 32 the difference is actually 66·8 pounds of fat in only 5 months. The indications, from the records of this association, are that there is plenty of room for judicious selection. For instance, in one herd a 4-year-old cow in 8 months gave 5,330 pounds of milk and 210 pounds of fat, but an 8-year-old in 9 months gave only 3,745 pounds of milk and 140 pounds of fat. Thus with one month's longer opportunity she gave 70 pounds of fat less than the other.

Similar differences occur in many other herds, and such sharp contrasts indicate how imperative it is to test for fat and to weed out the poor cows.

TABLE XVIII.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, MANSONVILLE QUE

30 Days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
May 27	115	470	3·9	18·3
June 27	262	589	3·8	22·6
July 27	299	555	4·0	22·5
August 27	251	492	4·1	19·7
September 23	80	435	4·3	18·8
October 26	60	378	4·5	17·3

MANSONVILLE, QUE.

In herd 3 the average yield is 3,144 pounds of milk in 5 months, but in herd 13 the average is only 2,336 pounds in that time. A simple calculation indicates that if the cows in herd 13 produced as much as those in herd 3, there would be a total yield of 6,400 pounds of milk more, or *practically 200 pounds of butter more in five months*. Another \$42 from 8 cows in that short time would be a more satisfactory income.

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Telling as such a contrast is, that between herds 4 and 6 is greater. If as good as those in herd 6, the 16 cows in herd 4 would have made 224 pounds more butter in 4 months, and would have netted over \$47 more for their owner.

In herd 1 the average yield is 2,750 pounds of milk in 5 months. Had they been as good producers as herd 3, 14 cows would have done as much work and brought as much profit as 21. There is a distinct saving to the farmer in time, energy and feed, through keeping better stock.

TABLE XIX.—TOTAL PRODUCTION OF INDIVIDUAL COWS—MANSONVILLE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
1	20	.....	3	Feb. 20, 1905..	4	1,490	63·9
	29	.....	4	.....	4	1,970	70·3
	14	.....	7	Jan. 12, 1906..	4	2,480	94·8
	1	.....	10	March 13, 1906..	4	2,240	96·2
	2	.....	5	Dec. 25, 1905..	4	2,210	99·6
	19	.....	3	March 15, 1906..	5	1,850	74·5
	3	.....	3	" 20, 1905..	5	1,490	77·3
	25	.....	2	April 7, 1906..	5	1,920	79·2
	22	.....	7	March 20, 1906..	5	2,350	90·5
	26	.....	2	April 7, 1906..	5	2,430	91·2
	21	.....	3	March 6, 1906..	5	2,460	99·8
	17	.....	7	Feb. 25, 1906..	5	2,600	101·7
	4	.....	2	April 1, 1906..	5	2,550	103·1
	5	.....	8	March 8, 1906..	5	3,160	107·8
	18	.....	6	" 27, 1906..	5	2,970	108·1
	16	.....	7	Feb. 10, 1906..	5	2,760	109·4
	27	.....	7	April 7, 1906..	5	3,210	112·4
	11	.....	6	March 12, 1906..	5	2,960	118·0
	9	.....	7	April 1, 1906..	5	3,100	120·7
	10	.....	6	March 20, 1906..	5	3,220	123·7
	12	.....	6	" 10, 1906..	5	3,400	124·0
	6	.....	8	" 1, 1906..	5	3,280	127·5
	8	.....	9	" 1, 1906..	5	2,800	128·6
	7	.....	9	" 4, 1906..	5	3,380	131·3
	13	.....	7	" 12, 1906..	5	3,190	135·8
	15	.....	7	" 10, 1906..	5	3,260	137·0
3	5	Guernsey.....	3	.....	5	2,600	99·3
	7	Durham.....	9	.....	5	2,510	101·4
	10	Guernsey.....	7	.....	5	2,645	105·3
	2	".....	2	.....	5	2,675	111·8
	1	".....	2	.....	5	2,585	121·3
	14	Durham.....	9	.....	5	3,290	121·8
	8	".....	9	.....	5	3,145	122·4
	12	".....	6	.....	5	3,825	125·2
	15	".....	6	.....	5	3,175	125·3
	11	Grade.....	12	.....	5	3,545	130·2
	4	Guernsey.....	3	.....	5	2,845	133·2
	9	Durham.....	9	.....	5	2,825	133·1
	6	Durham Holstein.....	8	.....	5	3,610	144·5
4	3	Grade.....	9	.....	5	3,525	145·1
	6	Durham Holstein.....	8	.....	5	3,610	144·5
	13	Guernsey.....	6	.....	5	3,745	145·7
	18	Durham.....	2	March 28, 1906..	4	1,080	39·3
	4	".....	3	April 1905..	4	1,190	55·2
	17	".....	2	May 18, 1906..	4	1,310	60·3
	5	".....	2	" 9, 1906..	4	1,760	66·5
5	15	".....	7	Nov. 1905..	4	1,640	69·9
	1	".....	3	April 25, 1906..	4	1,840	72·5
	8	".....	4	Jan. 10, 1906..	4	1,940	75·5
	10	Holstein.....	5	Feb. 2, 1906..	4	2,090	78·6
	7	Durham.....	3	April 5, 1906..	4	1,930	79·0

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TABLE XIX.—TOTAL PRODUCTION OF INDIVIDUAL COWS, MANSONVILLE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk. Lbs.	Fat. Lbs.
4	13	Durham.	8	Dec. 1905..	4	2,109	79·1
	12	"	14	April 5, 1906..	4	2,140	80·5
	16	"	3	Feb. 9, 1906..	4	1,990	80·8
	9	"	4	Jan. 2, 1906..	4	2,050	82·7
	11	"	4	" 1, 1906..	4	2,030	88·9
	14	"	7	" 10, 1906..	4	2,250	93·3
	6	"	5	May 9, 1906..	4	2,740	104·6
6	17	Grade	3	May 1, 1906..	4	1,482	56·1
	20	"	2	April 27, 1906..	4	1,610	63·2
	18	"	2	" 23, 1906..	4	1,725	66·7
	19	"	2	" 26, 1906..	4	1,645	67·5
	16	"	3	May 7, 1906..	4	2,607	76·6
	5	"	5	March 8, 1906..	4	2,035	79·3
	15	"	4	April 10, 1906..	4	2,300	80·6
	10	"	4	" 5, 1906..	4	2,540	81·0
	12	"	3	May 3, 1906..	4	2,347	84·9
	9	"	3	April 3, 1906..	4	2,315	86·2
	4	"	6	Feb. 6, 1906..	4	2,195	86·8
	13	"	8	May 6, 1906..	4	2,077	87·9
	21	"	8	" 6, 1906..	4	2,252	88·5
	14	"	4	April 20, 1906..	4	2,325	91·1
	7	"	6	Feb. 23, 1906..	4	2,374	92·1
	2	"	4	March 6, 1906..	4	2,395	93·5
	8	"	5	Feb. 23, 1906..	4	2,395	98·3
	1	"	6	" 7, 1906..	4	2,840	102·0
	11	"	4	April 3, 1906..	4	2,535	102·5
	3	"	8	Feb. 6, 1906..	4	2,585	105·8
	6	"	6	" 23, 1906..	4	2,680	111·3
7	10	Grade Durham.	2	May 8, 1906..	4	1,693	60·1
	12	"	3	April 1906..	4	1,410	61·4
	9	"	2	" 1906..	4	1,880	66·8
	13	" Jersey	5	" 1906..	4	1,985	75·6
	2	" Ayrshire.	10	March 1906..	4	2,070	81·4
	3	"	13	" 1906..	4	2,255	81·4
	4	" Durham-Jersey..	8	April 1906..	4	2,210	81·8
	8	" Holstein.	8	March 1906..	4	2,480	85·2
	7	"	9	" 1906..	4	2,470	87·2
	1	" Jersey.	8	" 1906..	4	2,340	87·9
	5	" Holstein.	9	May 21, 1906..	4	2,565	91·5
	6	"	8	March 1906..	4	2,535	95·0
	14	"	5	May 1906..	4	2,705	101·0
12	2	" Jersey	8	Sept. 1905..	4	1,810	82·0
	5	"	5	Feb. 1906..	4	2,390	113·3
13	8	"	9	March 1906..	4	1,740	72·9
	11	" Jersey	3	Nov. 1906..	5	1,330	65·0
	5	" Guernsey.	2	May 2, 1906..	5	2,650	92·7
	4	" Durham.	4	March 1906..	5	2,530	95·5
	3	" Guernsey	4	Feb. 6, 1906..	5	2,330	106·2
	7	" Jersey	4	" 1906..	5	2,000	109·7
	1	" Guernsey.	4	April 1906..	5	2,550	111·0
	2	"	4	" 1906..	5	2,470	112·1
	9	" Jersey	5	Feb. 1906..	5	2,835	123·7
18	6	"	"	"	4	1,200	44·2
	5	"	"	"	4	1,330	59·1
	4	"	"	"	4	1,480	60·3
	7	"	"	"	4	1,620	64·0
	2	"	"	"	4	1,420	64·9
	9	"	"	"	4	1,970	71·2

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TABLE XIX.—TOTAL PRODUCTION OF INDIVIDUAL COWS, MANSONVILLE, QUE.
—Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
18	13	.....	.....	.....	4	1,720	72·2
	1	.....	.....	.....	4	1,740	72·6
	3	.....	.....	.....	4	1,590	73·2
	10	.....	.....	.....	4	1,790	74·2
	12	.....	.....	.....	4	1,940	75·3
	14	.....	.....	.....	4	2,050	84·2
	11	.....	.....	.....	4	2,190	85·2
	8	.....	.....	.....	4	2,400	85·6
	15	.....	.....	.....	4	2,210	90·1
19	30	.....	.....	.....	4	1,060	49·5
	34	.....	.....	.....	4	1,400	49·4
	36	.....	.....	.....	1	1,070	49·7
	33	.....	.....	.....	4	1,240	52·1
	31	.....	.....	.....	4	1,255	54·2
	32	.....	.....	.....	4	1,020	56·7
	24	.....	.....	.....	4	1,340	64·8
	13	.....	.....	.....	4	1,615	69·5
	29	.....	.....	.....	4	1,800	70·5
	22	.....	.....	.....	4	1,460	73·6
	23	.....	.....	.....	4	1,750	77·1
	11	.....	.....	.....	4	1,460	81·4
	25	.....	.....	.....	4	2,030	81·5
	29	.....	.....	.....	4	2,065	86·7
	6	.....	.....	.....	4	2,070	87·9
	5	.....	.....	.....	4	2,185	88·5
	23	.....	.....	.....	4	2,405	91·4
	4	.....	.....	.....	4	2,020	92·6
	9	.....	.....	.....	4	2,400	96·8
	8	.....	.....	.....	4	2,410	97·8
	21	.....	.....	.....	4	2,540	100·8
	26	.....	.....	.....	4	2,360	102·2
	19	.....	.....	.....	4	2,345	102·7
	10	.....	.....	.....	4	2,385	103·9
	27	.....	.....	.....	4	2,555	104·9
	17	.....	.....	.....	4	2,430	106·0
	1	.....	.....	.....	4	2,840	110·3
	15	.....	.....	.....	4	2,530	111·0

TABLE XX.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, ST. ARMAND, QUE.

30 Days ending	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
Mar. 22.....	128	482	3·9	19·2
Apl. 24.....	252	492	3·8	18·7
May 24.....	318	521	3·8	20·2
June 23.....	355	661	3·9	26·2
July 23.....	328	577	4·1	24·1
Aug. 22.....	314	511	4·1	21·2
Sept. 21.....	322	522	4·3	22·5
Oct. 21.....	281	471	4·5	21·4
Nov. 20.....	266	339	4·9	16·7
Dec. 20.....	153	295	4·7	13·8

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Some of the records in herd 1 give particular point to the necessity of studying the individuality of each cow as opposed to resting content with a fair average production from the whole herd. Looking at the group of cows tested for 8 months and considering only the question of age, it is noticed that the 3-year-old cow No. 28 heads the list with a total production of 176.2 pounds of fat, while the registered pure-bred animals 6 and 9 years old, cows Nos. 3 and 8, are down in the 137 and 142-pound class. Again, the 6-year-old cow No. 14, producing 231 pounds of fat in 9 months, is only 5½ pounds behind the record of 236.6 pounds of fat from the 9-year-old cow No. 9 in 10 months.

Attention must be drawn to the good record in herd 18 of the 5-year-old cow No. 4, producing 286.5 pounds of fat in 9 months, beating the best 10 months' record, 261.1 pounds, from cow No. 37 in the same herd, by 21.4 pounds of fat.

In herd 8, cow No. 14 gives 263.7 pounds of fat in 10 months. Two prominent individual records for 7 months are in herd 20, where cow No. 5 produces 220.3 pounds of fat; and in herd 27, where cow No. 19 produces 247.9 pounds of fat.

Glancing over the records of all the cows in this testing association, probably the most striking is that of cow No. 12 in herd 13, yielding 283.2 pounds of fat in 8 months. In this district there was a good hay crop and plenty of corn is fed.

TABLE XXI TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	1	Grade.....	8	June 8, 1905..	6	3,342	137.3
	33	Hereford.....	8	" 14, 1906..	7	3,129	119.2
	32	Jersey.....	6	" 1, 1906..	7	3,020	123.5
	7	".....	9	Nov. 2, 1905..	7	3,097	155.8
	30	".....	5	April 29, 1906..	7	4,140	178.7
	27	".....	3	" 19, 1906..	8	2,710	128.7
	12	Registered Jersey.....	3	Jan. 7, 1906..	8	2,620	136.5
	3	".....	9	Aug. 11, 1905..	8	2,555	137.5
	8	".....	6	Nov. 3, 1905..	8	3,155	142.4
	6	".....	3	Aug. 11, 1905..	8	3,475	148.8
	25	Jersey.....	11	April 8, 1906..	8	3,455	151.9
	31	".....	11	May 10, 1906..	8	4,229	160.7
	13	Registered Jersey.....	6	Dec. 17, 1905..	8	3,895	170.7
	29	Jersey.....	7	April 16, 1906..	8	3,760	171.1
	28	".....	3	" 16, 1906..	8	3,365	176.2
	21	".....	2	Mar. 21, 1906..	9	2,500	115.0
	10	Registered Jersey.....	3	Nov. 11, 1905..	9	2,450	135.1
	5	".....	3	Aug. 1, 1905..	9	2,740	142.0
	19	Grade.....	7	Mar. 17, 1906..	9	3,930	158.4
	23	Jersey.....	7	" 29, 1906..	9	4,165	190.7
	24	".....	9	April 5, 1906..	9	4,465	191.2
	11	Registered Jersey.....	9	Nov. 15, 1905..	9	3,670	195.1
	15	".....	5	Mar. 2, 1906..	9	4,900	221.2
	14	".....	6	Jan. 25, 1906..	9	4,620	231.1
	2	".....	10	June 8, 1905..	10	2,850	138.4
	17	Grade.....	4	Mar. 2, 1906..	10	3,660	156.1
	18	Jersey.....	7	" 7, 1906..	10	4,665	209.3
	16	Registered Jersey.....	7	" 1, 1906..	10	4,452	211.2
	9	".....	9	Dec. 15, 1905..	10	4,470	236.6
2	6	Grade Durham.....	4	June 12, 1906..	7	3,357	128.1
	3	Grade Ayrshire.....	13	" 7, 1906..	7	3,791	131.7
	2	".....	5	May 23, 1906..	7	3,875	152.0
	5	".....	5	" 23, 1906..	7	4,320	156.0
	10	".....	2	April 27, 1906..	8	1,949	81.7
	7	".....	7	" 1905..	8	1,960	104.4

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
2	9	Grade Durham.	3	May 20, 1906..	8	3,054	129.9
	4	"	8	April 23, 1906..	8	5,225	203.2
	8	"	6	" 19, 1906..	9	4,486	191.6
5	1	Low Grade.	3	June 11, 1906..	5	1,555	77.9
	12	"	10	" 10, 1906..	5	2,225	82.9
	14	"	4	May 16, 1906..	6	2,335	95.7
	18	Low Grade.	6	" 23, 1906..	6	2,435	104.4
	16	"	13	" 24, 1906..	6	3,050	117.0
	5	"	12	" 1, 1906..	7	3,854	154.1
	17	"	5	April 26, 1906..	7	3,450	142.3
	11	"	10	Mar. 26, 1906..	8	2,705	101.7
	13	"	10	April 2, 1906..	8	3,380	122.1
	15	"	4	Mar. 18, 1906..	8	3,030	130.2
	10	"	7	April 7, 1906..	8	3,242	144.4
	9	"	7	Mar. 30, 1906..	8	3,515	149.3
	6	"	12	" 21, 1906..	8	3,335	150.7
	7	"	5	" 28, 1906..	8	4,050	162.7
	2	"	8	" 30, 1906..	8	4,150	176.0
	3	"	8	" 26, 1906..	8	4,110	176.9
7	18	Grade	6	April 14, 1906..	7	2,860	101.6
	20	"	2	Feb. 23, 1906..	7	2,430	102.3
	6	"	10	April 26, 1906..	7	2,926	121.1
	12	"	10	May 15, 1906..	7	3,900	139.1
	19	Grade	2	Feb. 28, 1906..	8	2,670	107.9
	10	"	5	March 24, 1906..	8	3,500	132.1
	11	"	4	" 15, 1906..	8	3,240	135.3
	17	"	5	Feb. 18, 1906..	8	3,620	141.0
	9	"	8	March 30, 1906..	8	4,090	141.5
	16	"	7	" 15, 1906..	8	3,830	154.8
	2	"	5	April 20, 1906..	8	3,995	157.5
	13	Ayrshire.	12	" 2, 1906..	8	4,180	160.0
	8	Grade	10	" 14, 1906..	8	4,200	160.5
	3	"	9	March 23, 1906..	8	4,240	166.3
	7	"	8	" 28, 1906..	8	4,030	173.7
	15	"	8	" 30, 1906..	8	4,490	175.5
	4	"	9	" 27, 1906..	8	4,410	178.1
	1	"	6	" 23, 1906..	8	4,700	193.1
8	19	Grade Guernsey..	2	July 12, 1906..	6	1,691	72.1
	11	Grade	7	Feb. 10, 1906..	6	3,115	110.1
	23	"	9	Dec. 10, 1905..	6	2,620	111.4
	3	"	6	March, 1906..	7	3,380	126.9
	9	"	10	June 2, 1906..	7	4,520	159.1
	2	Grade Guernsey..	6	Jan., 1906..	7	3,380	182.0
	21	"	2	April 24, 1906..	8	2,765	112.4
	22	Grade	13	Jan. 20, 1906..	8	3,960	149.5
	4	"	5	" 10, 1906..	8	4,025	152.0
	16	"	8	" 10, 1906..	8	3,930	161.1
	18	Grade Guernsey..	6	" 18, 1906..	8	4,095	177.6
	27	"	3	May 14, 1906..	8	3,605	201.5
	5	Grade.	8	April 1, 1906..	8	4,610	228.2
	6	Grade Guernsey	2	" 15, 1906..	9	2,670	116.9
	20	Grade Guernsey	2	Jan. 30, 1906..	9	2,770	118.3
	7	Grade Guernsey..	3	March 27, 1906..	9	2,955	135.5
	15	Grade.	4	Jan. 6, 1906..	9	3,586	156.4
	10	Grade Ayrshire	3	April 8, 1906..	9	4,403	157.5
	24	Grade Guernsey..	3	Dec. 20, 1906..	9	3,550	162.4
	1	"	6	April 8, 1906..	9	3,910	179.0
	12	Grade	8	Jan. 25, 1906..	9	4,415	179.2
	26	Grade Guernsey..	3	April 17, 1906..	9	4,045	200.8
	25	"	3	Jan. 23, 1906..	9	4,085	204.8

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
8	13	Grade Guernsey	7	Feb. 8, 1906 ..	9	5,020	209.1
	8	"	5	Jan. 5, 1906 ..	10	4,340	167.8
	14	"	7	Feb. 22, 1906 ..	10	5,855	263.7
10	36	.....			4	1,550	54.6
	16	Ayrshire	4	July 3, 1905 ..	4	1,615	59.7
	32	.....	2	April 26, 1906 ..	4	1,783	68.5
	35	.....			4	2,206	73.0
	34	.....			4	2,880	110.7
	33	.....	2	May 15, 1906 ..	6	1,943	77.7
	20	Grade Ayrshire	2	Feb. 12, 1906 ..	6	2,010	85.8
	15	Grade	5	August 1, 1905 ..	6	2,498	92.1
	17	Ayrshire	3	July 20, 1905 ..	6	2,045	92.1
	27	.....	6	March 28, 1906 ..	6	3,168	122.6
	6	Grade Jersey	9	Dec. 12, 1905 ..	7	2,722	112.4
	19	Ayrshire	3	Aug. 17, 1905 ..	7	2,772	114.0
	10	Grade Holstein	8	June 20, 1905 ..	7	3,055	125.6
	23	Ayrshire	7	March 16, 1906 ..	7	4,545	169.9
	11	Gr. Holstein	7	June 4, 1905 ..	8	3,388	126.5
	5	Gr. Jersey	10	July 20, 1905 ..	8	3,492	145.8
	30	.....	13	May 10, 1906 ..	8	4,704	176.4
	1	Gr. Jersey	13	Feb. 16, 1906 ..	8	4,683	176.8
	28	.....	4	April 7, 1906 ..	8	4,509	183.3
	8	Gr. Ayrshire	8	March 2, 1906 ..	8	5,669	202.5
	31	.....	9	May 10, 1906 ..	8	4,835	207.3
	14	Gr. Ayrshire	6	Feb. 18, 1906 ..	8	5,510	211.5
	2	Gr. Jersey	12	" 14, 1906 ..	8	5,156	227.3
	9	Gr. Ayrshire	8	March 16, 1905 ..	8	4,702	165.5
	18	Ayrshire	3	June 1, 1905 ..	9	2,814	110.7
	25	.....	7	March 22, 1906 ..	9	3,910	153.4
	7	Gr. Jersey	9	Feb. 10, 1906 ..	9	3,986	162.7
	26	.....	12	March 28, 1906 ..	9	4,332	163.9
	3	Gr. Ayrshire	11	Jan. 20, 1906 ..	9	4,942	191.4
	24	.....	10	March 12, 1906 ..	9	5,438	218.5
	22	Ayrshire	4	" 4, 1906 ..	10	4,695	160.8
	4	Gr. Ayrshire	10	Jan. 10, 1906 ..	10	4,517	191.4
	13	Gr. Holstein	6	" 10, 1906 ..	10	4,570	193.0
	12	"	6	Feb. 18, 1906 ..	10	5,693	230.7
11	26	Grade	10	July 26, 1906 ..	4	2,191	105.8
	25	"	2	June 25, 1906 ..	5	2,092	82.2
	21	"	2	" 18, 1906 ..	5	2,085	91.7
	22	"	3	" 20, 1906 ..	5	2,450	103.8
	24	"	3	" 26, 1906 ..	5	2,164	107.5
	23	"	3	" 25, 1906 ..	5	3,126	140.7
	20	"	10	Spring, 1905 ..	6	2,805	124.0
	17	"	12	April 28, 1906 ..	7	3,036	126.2
	15	"	4	" 26, 1906 ..	7	3,267	139.8
	16	"	6	" 26, 1906 ..	7	3,763	161.0
	19	"	5	May 1, 1906 ..	7	4,006	177.2
	18	"	10	" 4, 1906 ..	7	4,260	196.9
	2	"	6	March 25, 1906 ..	8	4,375	183.9
	13	"	3	" 7, 1906 ..	9	3,957	142.8
	4	"	5	April, 1906 ..	9	3,935	143.0
	10	"		March 19, 1906 ..	9	3,964	145.9
	8	"	4	April 18, 1906 ..	9	3,121	148.0
	11	"	10	Summer, 1905 ..	9	3,840	150.1
	9	"	4	April 16, 1906 ..	9	3,286	153.3
	12	"	3	March 5, 1906 ..	9	3,815	157.7
	1	"		Jan. 2, 1906 ..	9	4,015	163.4
	3	"	3	April 13, 1906 ..	9	3,970	164.9
	7	"	4	" 16, 1906 ..	9	3,580	166.5
	6	"		March 30, 1906 ..	9	4,220	175.2

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
11	14	Grade.....	4	March 9, 1906..	9	4,455	181.1
	5	".....		" 30, 1906..	9	4,165	185.2
13	24	Gr. Ayrshire.....	5	May, 1905..	4	1,425	54.3
	21	Gr. Jersey.....	2	" 1906..	4	1,450	73.4
	10	Gr. Ayrshire.....	9	Sept. 1, 1905..	5	2,405	87.1
	6	Grade.....	6	Jan. 1, 1906..	6	2,430	85.9
	25	Gr. Ayrshire.....	7	May, 1905..	6	2,585	92.9
	15	".....	2	June, 1906..	6	3,070	125.9
	5	Gr. Jersey.....	3	May, 1906..	6	3,145	135.7
	22	Gr. Ayrshire.....	5	" 1906..	6	4,175	179.9
	16	Durham.....	7	" 1906..	6	4,435	190.1
	4	Gr. Jersey.....	3	" 1905..	7	2,550	112.9
	18	Gr. Ayrshire.....	10	April 15, 1906..	7	2,920	120.7
	7	Gr. Guernsey.....	8	March 1, 1906..	7	4,015	157.1
	2	Gr. Ayrshire.....	4	May, 1906..	7	4,270	160.4
	20	".....	6	" 1906..	7	4,586	177.8
	13	Grade Ayrshire.....	2	April 15, 1906..	8	2,582	102.6
	3	".....	3	March 4, 1906..	8	4,095	140.3
	19	Grade Holstein.....	4	April 16, 1906..	8	4,267	160.1
	23	Grade Ayrshire.....	3	" 6, 1906..	8	4,677	163.6
	1	".....	9	March 1, 1906..	8	5,275	166.2
	8	".....	4	" 4, 1906..	8	4,465	170.4
	17	Grade Durham.....	11	" 7, 1906..	8	4,640	179.9
	9	Grade.....	8	April 15, 1906..	8	4,520	194.7
	14	Grade Ayrshire.....	5	March 15, 1906..	8	5,380	199.6
	11	Grade Jersey.....	5	" 28, 1906..	8	3,760	200.4
	12	Grade Durham.....	10	April 5, 1906..	8	6,425	283.2
15	6	Grade.....	3	Sept. 1905..	4	1,290	58.3
	31	".....	3	June 1906..	4	1,625	69.7
	9	Ayrshire.....	4	Nov. 5, 1905..	4	1,625	70.7
	3	".....	4	Aug. 1905..	4	1,735	76.6
	30	".....	4	".....	4	1,825	79.3
	28	Grade Ayrshire.....	2	Aug. 1906..	4	2,815	102.7
	23	".....	4	May 1906..	4	2,650	106.4
	29	Ayrshire.....	6	Aug. 1906..	4	3,775	159.7
	27	".....	2	" 4, 1906..	5	2,285	90.4
	26	".....	2	July 1906..	5	2,335	93.8
	22	Grade Ayrshire.....	2	May 1906..	5	2,525	102.8
	5	Ayrshire Jersey.....	3	Sept. 1905..	6	2,375	106.2
	13	Ayrshire.....	7	Jan. 1906..	6	3,415	134.7
	15	Grade Jersey.....	7	Feb. 1906..	6	3,650	136.6
	19	Grade Ayrshire.....	8	March 1906..	6	3,890	156.0
	16	Grade Jersey.....	4	Feb. 1906..	6	3,900	158.2
	8	".....	2	Nov. 1905..	7	2,910	134.8
	2	Ayrshire Jersey.....	3	Aug. 1905..	7	3,730	160.8
	1	Grade Ayrshire.....	4	Nov. 1905..	7	4,295	160.9
	10	Grade.....	4	April 1906..			
	11	Grade Ayrshire.....	2	June 1905..	7	3,265	164.9
	21	Ayrshire.....	3	" 1905..	8	4,413	179.2
	4	Grade.....	6	April 1906..	8	5,610	193.0
	7	Grade Ayrshire.....	8	Sept. 1905..	8	4,725	193.2
	20	".....	4	Oct. 1905..	8	4,905	193.4
	14	Grade.....	7	April 1906..	8	5,680	211.3
	18	Ayrshire.....	12	Feb. 1906..	9	5,380	205.1
	12	".....	10	March 1906..	9	5,620	227.2
	17	Ayrshire Jersey.....	8	Calved Apr., '05 Aborted Dec. '05	10	4,890	223.0
			10	March 1906..		5,680	240.7
17	3	Grade Ayrshire.....	4	June 23, 1906..	4	2,620	93.9
	4	Grade Jersey.....	9	March 7, 1906..	7	2,727	115.2

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
17	1	Grade Ayrshire.....	5	April 13, 1906..	7	3,540	140.9
	7	Grade Jersey.....	13	March 5, 1906..	8	3,105	107.1
	6	Grade Guernsey.....	6	" 13, 1906..	8	3,292	127.3
	10	".....	3	" 11, 1906..	8	2,545	130.8
	8	Grade Jersey.....	13	" 6, 1906..	8	3,312	131.3
	5	".....	5	Feb. 27, 1906..	8	3,660	140.8
	9	Grade Guernsey.....	3	March 8, 1906..	8	3,519	150.2
	2	Grade Ayrshire.....	12	" 2, 1906..	8	5,120	201.7
18	47	Grade Ayrshire.....	2	May 4, 1906..	6	1,640	82.0
	26	Grade Guernsey.....	7	June 27, 1906..	6	3,820	161.2
	44	Grade Ayrshire.....	2	" 8, 1906..	7	2,270	88.1
	45	Grade Guernsey.....	2	" 2, 1906..	7	2,762	107.5
	35	Grade Jersey.....	3	" 16, 1906..	7	3,355	128.2
	31	Grade Guernsey.....	3	" 9, 1906..	7	2,890	140.6
	6	".....	11	" .., 1905) Aug. .., 1906 }	7	3,696	146.9
	14	Grade Guernsey.....	12	June .., 1905) July 23, 1906 }	7	4,030	166.9
18	1	Grade Guernsey.....	12	May 21, 1906..	7	4,183	172.5
	46	".....	2	March 7, 1906..	8	2,450	113.3
	42	".....	2	Feb. 18, 1906..	8	2,740	123.6
	8	".....	3	April 10, 1906..	8	3,770	164.5
	18	".....	5	May 17, 1906..	8	3,894	187.8
	12	Grade Jersey.....	7	" 9, 1906..	8	4,790	193.4
	24	Grade Guernsey.....	9	April 5, 1906..	8	5,230	207.1
	19	".....	7	" 28, 1906..	8	4,954	231.5
	41	".....	2	March 11, 1906..	9	3,190	140.2
	43	".....	2	" 25, 1906..	9	2,720	140.9
	20	".....	3	April 10, 1906..	9	3,963	182.8
	22	Grade Jersey.....	7	March 15, 1906..	9	4,701	183.9
	39	Grade Guernsey.....	3	" 20, 1906..	9	4,600	193.3
	40	".....	3	April 10, 1906..	9	3,995	196.3
	32	".....	4	March 26, 1906..	9	4,160	203.0
	16	".....	4	" 12, 1906..	9	4,550	208.7
	9	".....	5	Feb. 9, 1906..	9	5,220	220.6
	27	".....	7	March 29, 1906..	9	4,870	227.0
	29	Grade.....	11	Feb. 16, 1906..	9	5,660	235.7
	10	Grade Ayrshire.....	5	April 7, 1906..	9	6,708	236.1
	23	Grade Guernsey.....	9	" 16, 1906..	9	5,555	243.9
	25	".....	7	March 27, 1906..	9	6,880	250.9
	30	Grade.....	9	Feb. 21, 1906..	9	7,080	252.8
	15	Grade Guernsey.....	12	March 27, 1906..	9	5,750	254.9
	33	".....	6	" 22, 1906..	9	5,730	255.5
	4	".....	5	Feb. 5, 1906..	9	5,700	286.5
	7	".....	4	March 13, 1906..	10	4,340	202.5
	28	".....	3	Feb. 13, 1906..	10	4,860	225.5
	5	".....	5	March 16, 1906..	10	4,862	233.0
	13	".....	11	Feb. 13, 1906..	10	5,580	241.7
	2	".....	12	" 18, 1906..	10	5,830	251.7
	21	".....	5	March 17, 1906..	10	5,625	254.7
	11	Grade Holstein.....	5	" 8, 1906..	10	6,962	257.4
	37	Grade Guernsey.....	6	Feb. 10, 1906..	10	5,790	261.1
20	11	Grade.....	2	Aug. 4, 1906..	5	1,830	76.9
	3	".....	8	Farrow.....	6	1,160	42.2
	4	".....	13	May 27, 1906..	6	3,618	160.9
	6	Grade Guernsey.....	8	June 27, 1906..	6	4,040	184.1
	7	Grade.....	4	Farrow.....	7	2,700	136.5
	10	".....	3	June 3, 1906..	7	4,390	182.3
	5	Grade Jersey.....	4	May 10, 1906..	7	5,330	229.3

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
20	9	Grade	6	May 1, 1906..	8	5,010	190 2
	8	Grade Jersey	4	" 3, 1906..	8	4,680	195 8
	12	Grade Durham	8	" 10, 1906..	8	5,260	197 0
	1	"	7	March 15, 1906..	8	4,190	202 2
22	2	Registered Ayrshire	6	" 1905..	5	1,420	58 3
	6	"	6	July 15, 1905..	5	1,555	60 1
	13	Grade	6	May 1905..	5	1,815	67 9
	1	Grade Ayrshire	4	" 1905..	5	1,575	70 0
	3	Grade	11	April 25, 1906..	5	2,830	89 2
	12	"	6	" 20, 1906..	5	2,290	91 6
	9	"	12	March 30, 1906..	5	2,945	104 9
	7	Grade Ayrshire	10	April 1, 1906..	5	2,775	106 0
	8	"	8	" 2, 1906..	5	2,990	109 9
	5	Grade	10	" 27, 1906..	5	3,195	110 0
	10	Grade Guernsey	8	" 15, 1906..	5	2,520	115 3
	11	Grade	9	" 26, 1906..	5	3,190	124 7
	4	"	12	" 24, 1906..	5	3,055	125 4
25	19	Grade Ayrshire	16	March 23, 1906..	5	2,495	98 4
	10	"	16	Feb. 4, 1906..	7	3,565	121 5
	11	"	12	Dec. 23, 1905..	7	2,985	122 9
	21	"	6	June 5, 1906..	7	3,964	155 9
	17	"	4	" 11, 1905..	8	3,415	140 1
	14	"	6	Jan. 8, 1906..	8	3,660	160 4
	22	"	7	May 9, 1906..	8	4,100	176 1
	3	"	4	Jan. 20, 1906..	9	3,150	127 9
	1	"	7	Feb. 25, 1905..	9	3,620	151 4
	16	"	4	Aug. 2, 1906..	9	3,615	152 9
	20	"	4	Feb. 2, 1906..	9	4,570	158 4
	4	"	6	April 7, 1906..	9	4,325	162 1
	13	"	7	July 21, 1905..	9	3,325	162 1
	7	"	4	Jan. 1, 1906..	9	4,020	180 7
	18	"	5	Feb. 1, 1906..	9	4,895	192 2
	12	"	4	" 7, 1906..	10	3,985	163 8
	8	"	3	Dec. 24, 1905..	10	4,630	172 9
	15	"	4	Jan. 24, 1906..	10	3,910	176 7
	5	"	6	Feb. 25, 1906..	10	4,595	179 7
	9	Grade Jersey	7	Jan. 3, 1906..	10	4,945	188 1
	6	Grade Ayrshire	10	Feb. 18, 1906..	10	5,210	212 0
	2	"	7	" 10, 1906..	10	5,365	218 8
			7	" 13, 1906..	10	5,390	227 0
27	12	.....	5	April 4, 1906..	6	2,830	97 9
	15	.....	6	" 15, 1906..	6	2,940	101 2
	18	Jersey	2	May 20, 1906..	7	1,768	90 1
	24	Grade	3	June 17, 1906..	7	3,338	154 9
	21	"	10	" 16, 1906..	7	4,401	170 3
	22	"	6	" 15, 1906..	7	4,832	216 2
	19	"	5	May 23, 1906..	7	5,950	247 9
	23	"	3	April 21, 1906..	8	3,224	137 9
	6	.....	7	March 23, 1906..	8	4,330	146 3
	7	.....	6	" 28, 1906..	8	3,860	158 9
	17	Grade	9	May 1, 1906..	8	4,251	162 7
	2	.....	5	March 4, 1906..	8	4,040	171 9
	3	.....	5	" 20, 1906..	8	4,920	196 0
	4	.....	5	" 15, 1906..	8	4,330	196 9
	1	Grade	3	Feb. 20, 1906..	9	3,670	172 7
	25	"	9	April 14, 1906..	9	4,790	175 4
13	9	13	March 15, 1905..	9	3,870	176 3
	8	8	" 29, 1906..	9	4,260	188 7
	13	9	April 7, 1906..	9	4,432	195 5
	16	4	" 15, 1906..	9	4,220	198 8

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TABLE XXI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. ARMAND, QUE.
—*Concluded.*

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
27	11	Grade	6	April 4, 1906..	9	5,240	208·4
	20	"	6	May 23, 1906..	9	5,015	210·4
	10	"	4	April 2, 1906..	9	4,346	215·0
	14	"	9	" 8, 1906..	9	5,188	215·5
	5	"	10	March 25, 1906..	9	6,810	274·5

TABLE XXII.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, ST. EDWIDGE, QUE.

30 days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
April 10	46	555	3·8	20·9
May 10	161	543	3·5	19·3
June 10	288	651	3·8	24·9
July 9	307	725	3·7	27·2
Aug. 8	304	654	3·9	25·7
Sept. 7	295	589	4·0	23·8
Oct. 7	255	510	4·4	22·6
Nov. 6	236	354	4·7	16·9
Dec. 6	158	247	4·9	12·1

St. Edwidge, Que.

On comparing some records of individual cows, contrasts are brought to light which are worth more than a passing glance; they call for serious reflection. For instance, in herd 12 the highest yield of milk by any one cow is 4,414 pounds, containing 167·7 pounds of fat, but the 5-year old cow No. 4 yields 65·3 pounds of fat less than that in the same seven months. In herd 11 the highest yield of fat in 7 months is 120·4 pounds, but in herd 6 during the same period, one cow gives 182·3 pounds, or 61·9 pounds more fat.

Taking the group of herds recorded for 8 months, it is found that in herd 23 the 3-year-old cow No. 6 gives 44·1 pounds of fat less than the best producer; but, again in 8 months, cow No. 14 in herd 8 falls as much as 99·5 pounds behind the highest yield. Herds 8, 17 and 21 have cows giving the very satisfactory yields of 242·6, 237·6 and 251·5 pounds of fat, a very great improvement on the record of the best cow in herd 18, only 154·8 pounds fat. Herd 21 has a cow giving 96·7 pounds of fat more than the best cow in herd 18 in eight months.

In the lot of 6 herds recorded for 9 months, herd 16 consists of cows with a very even run of total production. However, in herd 1 there is a greater contrast, for a 12-year-old cow there gives 153·3 pounds of fat less than the one with the splendid total of 285·9 pounds of fat to her credit. Herd 7, again, has the wide variation of 92·3 pounds of fat between the highest and lowest yields, while the best cow in the herd gives only 4,990 pounds of milk, or 2,550 pounds less than the best cow in herd 1, during the 9 months.

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In herd 18 the 5 cows tested 8 months, all calving April, 1906, and none under 4 years old, have a total production of only 16,818 pounds of milk; but in herd 8 just double the number of cows, namely 10, have to their credit the much more satisfactory total of 53,978 pounds of milk, or more than 3 times as much milk.

In herd 3 the 6 cows tested 8 months show a total yield of 24,240 pounds of milk; in herd 21 the 6 cows tested 8 months show 33,573 pounds, a better yield by 9,333 pounds, from the same number of animals.

So instances might be multiplied, drawing comparisons between the best and poorest cows in each herd under the same management, and between the best cows in the various herds in the same locality. Such great differences indicated in these figures point emphatically to the great room for, and urgent need of, following up these records by judicious selection and better feeding of the good cows, and the speedy elimination of those with low and unsatisfactory total production.

It should be noticed that the lowest yields of milk and fat are by no means all from young 2 and 3-year-old stock. In 19 out of the 28 herds under consideration here, the lowest yields are from cows aged 4 to 12 years.

TABLE XXIII. TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	30	French Canadian.....	7	Feb. —, 1906..	4	1,290	60.5
	13	Grade Ayrshire.....	3	Aug. 18, 1906..	4	2,180	80.9
	22	Guernsey, Holstein.....	4½	July 4, 1905..	5	1,920	108.6
	1	.....			6	1,690	72.9
	36	Shorthorn, Grade Jersey.....	12	June 26, 1905..	6	2,110	81.9
	4	.....			6	2,150	107.4
	24	Grade Holstein.....	8	June 23, 1905..	7	2,590	112.3
	10	Grade Shorthorn.....	3	" 21, 1905..	7	2,470	117.8
	8	Guernsey, Hereford.....	2	April 29, 1906..	7	2,610	126.5
	16	Ayrshire, Grade Hereford.....	3	June 29, 1905..	7	3,720	130.1
	35	Grade Guernsey.....	10	April 29, 1906..	7	5,340	275.3
	2	.....			8	2,370	121.5
	5	.....			8	3,120	142.7
	14	Ayrshire, Grade Shorthorn, Jersey.....	3	May 28, 1905..	8	3,910	143.8
	11	Grade.....	3	Jan. 14, 1906..	9	3,500	130.9
	37	.....	12	July 3, 1905..	9	3,270	132.6
	9	Grade Shorthorn.....	3	April 2, 1906..	9	4,042	158.4
	20	.....	9	Mar. 14, 1905..	9	3,720	172.5
	20	Grade Shorthorn.....	9	April 9, 1906..	9	4,033	172.7
	18	Red Polled.....	4	Mar. 31, 1906..	9	3,980	181.9
	21	Grade Shorthorn.....	4	" 11, 1906..	9	4,200	185.9
	15	Grade Ayrshire.....	3	" 5, 1906..	9	4,820	187.8
	12	Grade.....	8	Jan. 14, 1906..	9	4,400	195.6
	17	Grade Ayrshire.....	3	Mar. 17, 1906..	9	5,340	198.1
	33	Shorthorn.....	10	" 24, 1906..	9	4,974	204.0
	26	Grade Ayrshire.....	8	Feb. 11, 1906..	9	4,890	208.6
	25	Grade Holstein.....	7	Mar. 25, 1906..	9	5,592	224.0
	31	Grade Ayrshire.....	9	" 3, 1906..	9	5,770	229.1
	34	French Canadian.....	10	Feb. 19, 1906..	9	4,990	239.8
	23	Jersey, Grade Shorthorn.....	5	April 2, 1906..	9	5,174	241.9
	32	Grade Shorthorn.....	10	Mar. 12, 1906..	9	5,920	244.7
	38	Shorthorn, Grade Ayrshire.....	12	" 6, 1906..	9	7,540	285.9
2	6	Grade.....	2	May 28, 1906..	5	1,980	77.4
	4	".....	9	April 15, 1906..	8	5,170	198.3
	1	Durham.....	10	Mar. 10, 1906..	9	5,300	207.8
	3	Ayrshire.....	5	Feb. 11, 1906..	9	6,220	236.8
	2	Grade.....	8	Mar. 16, 1906..	9	6,530	242.8

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TABLE XXIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.

—Continued.

Herd Number:	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
3	1	Durham.....	7	April 29, 1906..	7	3,546	133.2
	3	Polled Angus.....	6	May 4, 1906..	7	3,846	143.2
	8	Durham.....	2	Mar. 13, 1906..	8	2,900	118.1
	4	".....	3	Feb. 11, 1906..	8	3,630	143.6
	2	".....	3	Mar. 2, 1906..	8	4,170	162.3
	7	".....	3	Feb. 9, 1906..	8	4,140	165.8
4	5	".....	4	Mar. 20, 1906..	8	4,840	173.5
	6	Ayrshire.....	12	" 17, 1906..	8	4,560	194.2
	11	Grade.....	8	June 12, 1906..	4	2,486	101.1
	4	".....	9	May 30, 1906..	6	3,770	150.3
	9	".....	4	April 9, 1906..	7	3,380	147.3
	3	".....	10	" 9, 1906..	7	3,840	148.4
	8	".....	8	" 16, 1906..	7	5,204	250.0
	15	".....	3	Mar. 16, 1906..	8	3,000	119.8
	13	".....	6	" 24, 1906..	8	3,875	153.1
	10	".....	6	April 1, 1906..	8	3,620	153.4
	5	".....	9	Mar. 26, 1906..	8	4,785	174.1
	6	".....	7	" 17, 1906..	8	4,922	189.9
	1	{ $\frac{3}{4}$ Durham } { $\frac{1}{4}$ Ayrshire }	6	" 15, 1906..	8	4,382	192.3
	2	{ $\frac{1}{2}$ Canadian } { $\frac{1}{2}$ Durham }	9	" 24, 1906..	8	5,024	200.4
5	10	Durham and Ayrshire.....	2	May 11, 1906..	6	2,500	107.6
	6	Grade Durham.....	13	April 16, 1906..	8	4,664	184.7
	4	$\frac{3}{4}$ Ayrshire.....	3	Jan. 9, 1906..	9	3,585	140.6
	8	Durham and Ayrshire.....	4	Mar. 4, 1906..	9	3,860	154.0
	3	Durham.....	3	Dec. 21, 1905..	9	4,060	165.4
	2	" Grade Ayrshire.....	3	" 19, 1905..	9	3,915	175.6
	7	Grade Durham.....	7	Mar. 14, 1906..	9	6,564	233.6
	5	Durham, Ayrshire.....	10	" 16, 1906..	9	7,014	233.8
	1	".....	4	" 15, 1906..	9	6,514	243.2
6	3	Grade.....	6	May 30, 1906..	6	3,230	128.8
	9	".....	4	April 12, 1906..	7	3,576	138.6
	2	".....	6	" 17, 1906..	7	3,824	138.7
	5	".....	4	" 17, 1906..	7	3,540	140.7
	8	".....	6	May 1, 1906..	7	3,440	150.5
	4	".....	8	" 2, 1906..	7	4,500	173.0
	10	Ayrshire.....	7	April 20, 1906..	7	4,190	182.3
	6	Grade.....	3	March 8, 1906..	8	3,050	133.0
	7	".....	4	" 12, 1906..	8	3,860	161.9
7	10	".....	6	May 7, 1906..	7	3,270	109.5
	9	".....	4	April 22, 1906..	7	3,508	152.2
	8	".....	3	" 16, 1906..	8	3,446	143.6
	3	Grade.....	5	March 13, 1906..	8	4,340	159.8
	11	".....	4	" 25, 1906..	9	3,094	110.5
	7	".....	3	April 1, 1906..	9	3,490	142.8
	4	".....	4	March 24, 1906..	9	3,788	162.5
	5	".....	7	" 31, 1906..	9	4,130	163.6
	2	".....	4	" 18, 1906..	9	4,622	190.6
	6	".....	7	" 15, 1906..	9	4,448	194.3
	1	".....	5	Jan. 28, 1906..	9	4,200	201.5
	12	".....	10	March 9, 1906..	9	4,990	202.8
8	4	".....			6	3,315	132.4
	15	Grade Ayrshire.....	3	May 4, 1906..	7	2,789	129.0
	2	".....	4	April 25, 1906..	7	3,335	145.8
	11	Grade Jersey.....	12	May 7, 1906..	7	4,278	159.1
	7	Grade Hereford.....	11	April 20, 1906..	7	5,235	188.5
	14	".....	4	March 30, 1906..	8	3,425	143.1

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TABLE XXIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
8	3	Grade Ayrshire.....	7	March 7, 1906..	8	4,865	172.4
	12	Grade Durham.....	9	" 10, 1906..	8	5,535	177.2
	5	"	7	" 17, 1906..	8	5,178	205.7
	8	Grade Jersey.....	12	" 15, 1906..	8	5,317	211.9
	12	Grade Ayrshire.....	10	" 21, 1906..	8	5,880	228.2
	13	Grade Hereford.....	9	Feb. 23, 1906..	8	5,245	231.6
	9	"	8	April 3, 1906..	8	5,773	232.3
	6	Durham.....	6	March 10, 1906..	8	6,625	237.5
	10	"	8	" 7, 1906..	8	6,135	242.6
9	5	.....	3	May 22, 1906..	5	1,884	80.1
	4	.....	4	" 25, 1906..	5	2,403	99.0
	8	.....	7	June 5, 1906..	5	3,276	119.5
	2	Durham.....	8	May 1, 1906..	6	3,405	118.8
	1	"	7	April 1, 1906..	6	3,975	121.3
	6	Hereford.....	9	" 11, 1906..	6	3,720	155.0
	3	Canadian.....	6	" 15, 1906..	6	4,030	164.9
11	7	Ayrshire.....	10	" 25, 1906..	6	4,275	173.5
	10	.....		" 27, 1906..	5	1,830	91.4
	6	.....		June 4, 1906..	6	2,710	97.3
	9	.....		Dec. 27, 1905..	6	2,250	109.8
	7	Hereford.....		May 27, 1906..	6	3,160	121.3
	2	Holstein.....	7	March 26, 1906..	7	2,960	103.8
	1	$\frac{1}{2}$ Jersey.....	8	" 21, 1906..	7	2,760	110.2
	5	Holstein.....	10	May 7, 1906..	7	2,891	111.8
	4	Grade Durham.....	11	" 7, 1906..	7	3,357	120.4
12	3	$\frac{1}{2}$ Holstein.....	10	April 2, 1906..	8	3,149	125.3
	12	Holstein-Durham.....	2	May 30, 1906..	5	1,950	73.8
	3	Jersey-Durham.....	6	Feb. 15, 1906..	5	2,380	91.4
	7	$\frac{3}{4}$ Durham.....	4	March 27, 1906..	5	2,758	93.6
	9	Durham.....	3	April 9, 1906..	5	2,930	113.6
	10	Holstein-Durham.....	2	" 20, 1906..	6	2,860	124.3
	11	Canadian.....	14	" 22, 1906..	6	3,520	136.7
	4	Holstein-Durham.....	5	Dec. 14, 1906..	7	2,560	102.4
	8	Quebec Jersey.....	5	April 5, 1906..	7	3,586	143.8
13	2	Grade Holstein.....	3	Feb. 20, 1906..	7	3,660	151.4
	6	Durham-Ayrshire.....	6	March 21, 1906..	7	3,798	160.4
	1	Durham-Jersey.....	9	" 15, 1906..	7	4,320	164.9
	5	Ayrshire.....	8	" 15, 1906..	7	4,414	167.7
	4	Ayrshire.....	9	April 17, 1906..	8	3,663	136.3
	1	Durham.....	4	May 1, 1905..	8	3,100	137.1
	3	"	10	April 17, 1906..	8	4,415	170.4
	7	Canadian.....	8	" 22, 1906..	8	3,885	182.8
	6	Durham.....	6	" 18, 1906..	8	4,197	190.6
14	2	"	4	" 15, 1906..	8	5,320	195.0
	4	Grade Durham.....	8	March 17, 1906..	6	3,236	126.8
	2	.....		May 7, 1905..	7	4,260	166.2
	8	.....		" 7, 1906..	7	5,310	200.0
	10	.....	4	April 17, 1906..	8	3,730	156.5
	11	.....	3	" 13, 1905..	8	4,691	176.7
	3	.....	8	" 17, 1906..	8	4,785	196.2
	1	Grade Durham.....	6	March 27, 1905..	9	4,020	142.8
	6	"	9	Feb. 23, 1906..	9	4,170	153.7
12	9	"	3	March 4, 1906..	9	4,510	176.0
	9	"	3	Feb. 16, 1906..	9	4,270	179.5
	12	Grade Durham.....	6	March 19, 1906..	9	5,310	208.3
	7	6	" 25, 1906..	9	5,620	227.5
	5	"					

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TABLE XXIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.

—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
15	7	Durham.....	13	June 25, 1906..	5	2,620	103·5
	9	Registered Shorthorn.....	12	March 26, 1906..	6	4,140	152·9
	11	".....	5	June 13, 1906..	6	4,126	163·5
	2	Durham-Hereford.....	6	May 25, 1906..	7	5,165	214·4
	10	Registered Shorthorn.....	5	March 25, 1906..	8	4,330	157·3
	3	Durham-Hereford.....	6	" 11, 1906..	8	4,750	171·5
	4	Durham.....	10	" 2, 1906..	8	4,750	186·9
	6	".....	5	" 22, 1906..	8	4,510	195·6
	1	Durham-Hereford.....	6	" 8, 1906..	8	5,130	206·5
	8	Durham.....	5	" 27, 1906..	8	5,760	215·7
16	4	Grade Durham.....	13	April 27, 1906..	7	5,444	203·3
	3	".....	5	May 7, 1905..	8	2,455	93·8
	2	".....	3	April 8, 1906..	8	4,614	172·7
	7	".....	12	March 20, 1906..	8	4,805	183·6
	1	".....	3	April 24, 1906..	8	5,574	228·5
	8	".....	4	" 4, 1906..	9	4,967	200·7
	9	".....	4	March 24, 1906..	9	5,045	202·1
	6	Durham-Hereford.....	9	" 31, 1906..	9	6,281	208·4
	5	Grade Durham.....	5	" 16, 1906..	9	5,760	226·0
17	11	Durham.....	7	" 12, 1906..	7	3,950	159·1
	5	".....	7	May 24, 1906..	7	5,070	188·7
	15	".....	5	".....	7	4,730	190·6
	4	".....	13	".....	7	5,090	200·0
	2	Durham-Hereford.....	4	".....	8	3,360	169·3
	13	".....	3	March 13, 1906..	8	4,690	182·7
	7	".....	9	".....	8	4,730	191·0
	1	".....	4	March 22, 1906..	8	5,090	200·5
	10	".....	8	".....	8	5,570	203·4
	3	Durham.....	10	March 31, 1906..	8	5,570	214·4
	6	".....	7	".....	8	5,790	237·6
	8	".....	5	April 6, 1906..	9	5,050	184·0
	14	Durham-Hereford.....	3	" 3, 1906..	9	4,916	188·4
	16	Durham.....	4	" 3, 1906..	9	5,282	206·0
18	6	Grade.....	8	May 20, 1906..	7	3,880	158·5
	1	".....	4	April 21, 1906..	8	1,997	89·9
	7	".....	7	" 2, 1906..	8	3,513	136·5
	3	".....	9	" 20, 1906..	8	3,750	144·5
	8	".....	7	" 16, 1906..	8	3,510	146·2
	5	".....	9	" 21, 1906..	8	4,048	154·8
	4	".....	8	" 6, 1906..	9	3,315	147·0
19	10	Canadian.....	10	June 23, 1906..	6	3,320	115·9
	9	".....	8	May 17, 1906..	7	3,933	155·7
	8	".....	8	" 11, 1905..	7	4,272	167·7
	5	Grade.....	5	April 23, 1906..	8	3,253	132·7
	6	".....	4	" 25, 1906..	8	3,545	133·5
	7	Canadian.....	5	May 5, 1906..	8	3,490	159·3
	3	Grade.....	11	April 14, 1906..	8	4,130	165·5
	4	".....	7	" 15, 1906..	8	4,460	168·7
	2	".....	3	March 24, 1906..	9	3,276	129·2
	1	".....	3	" 2, 1906..	9	4,120	147·3
20	12	Canadian.....	5	May 30, 1906..	6	3,050	119·3
	14	Ayrshire.....	3	June 13, 1906..	6	3,032	125·2
	15	Durham.....	4	" 15, 1906..	6	3,336	142·1
	11	".....	6	May 25, 1906..	6	3,870	149·9
	13	Jersey.....	4	June 4, 1906..	6	3,360	150·7
	1	Durham.....	11	" 14, 1905..	7	3,120	115·8
	2	Grade Jersey.....	6	July 16, 1905..	7	2,445	119·3
	4	Hereford.....	5	May 22, 1905..	7	2,885	132·4

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TABLE XXIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk. Lbs.	Fat. Lbs.
20	10	Durham	13	April 28, 1906..	7	3,935	159 8
	9	Jersey	4	" 15, 1906..	7	3,980	215 6
	3	"	4	" 11, 1905..	8	2,435	127 7
	3	Durham	4	" 4, 1906..	8	3,620	143 1
	7	Canadian	5	March 31, 1906..	8	4,540	161 5
	5	Hereford	4	" 30, 1906..	8	3,615	166 3
	6	"	5	April 12, 1906..	8	4,310	169 7
	8	Durham, Hereford.					
21	6	Grade Durham	3	" 22, 1906..	7	4,110	161 8
	7	"	3	March 7, 1906..	7	5,020	186 3
	2	"	5	April 25, 1906..	7	4,750	195 2
	9	Durham, Hereford	4	May 9, 1906..	7	5,740	220 4
	3	Grade Durham	4	March 21, 1906..	8	4,410	183 0
	12	"	3	April 4, 1906..	8	5,230	207 0
	5	Grade	11	March 30, 1906..	8	5,640	227 6
	4	"	4	April 4, 1906..	8	5,700	232 9
	1	Grade Durham	5	" 6, 1906..	8	5,913	245 5
	10	Hereford	8	" 10, 1906..	8	6,680	251 5
	8	Grade Durham	5	March 1, 1906..	9	6,655	266 2
22	11	Grade	8	Jan. 25, 1906..	9	7,145	278 1
	2	"	6	April 23, 1906..	5	2,523	96 2
	5	"	4	" 2, 1906..	6	2,435	91 1
	4	"	5	" 5, 1906..	6	2,906	109 0
	1	"	6	March 24, 1906..	6	3,350	117 6
	3	"	6	" 16, 1906..	6	2,680	118 4
23	5	Grade Durham	13	May 15, 1906..	6	5,010	193 1
	2	"	10	" 3, 1906..	7	4,242	149 0
	6	Grade Ayrshire	3	Dec. 23, 1905..	8	3,600	149 2
	1	Canadian	12	March 14, 1906..	8	4,010	153 8
	4	Grade Durham	14	" 12, 1906..	8	4,245	158 3
	3	"	6	" 14, 1906..	8	5,316	193 3
24	5	"			5	2,460	98 6
	2	"	5	May 20, 1906..	6	4,680	212 2
	7	"	3	April 3, 1906..	8	3,230	146 1
	6	"	3	March 31, 1906..	8	3,360	158 2
	1	"	5	Feb. 16, 1906..	8	3,780	175 0
	4	"	4	April 4, 1906..	8	4,225	178 1
	3	"	5	" 20, 1906..	8	5,060	206 6
26	1	Grade Durham	9	April 16, 1906..	4	2,486	90 9
	5	"	6	" 13, 1906..	4	2,663	116 3
	4	"	3	March 30, 1906..	5	2,180	80 1
	8	"	3	April 4, 1906..	5	2,212	80 7
	6	"	7	March 25, 1906..	5	2,050	95 5
	9	"	13	Feb. 18, 1906..	5	2,660	103 2
	3	"	8	March 27, 1906..	5	3,106	108 1
	2	"	7	" 26, 1906..	5	3,245	142 8
27	8	Durham	3	April 18, 1906..	8	3,271	129 8
	4	"	5	" 1, 1906..	8	4,365	157 4
	1	"	9	" 24, 1906..	8	3,862	165 9
	2	"	5	" 10, 1906..	8	4,125	169 8
	7	Ayrshire	4	" 12, 1906..	8	4,160	174 9
	6	Hereford	5	" 12, 1906..	8	4,640	181 7
	3	Durham	5	May 4, 1906..	8	5,075	183 9
	5	"	12	April 10, 1906..	8	3,990	184 5
	5	"	10	" 3, 1906..	8		
29	2	"	4	Farrow	4	1,559	70 2
	14	"	3	April 8, 1906..	4	1,955	78 3
	13	"	6	" 12, 1906..	4	2,133	82 3

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TABLE XXIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. EDWIDGE, QUE.
—Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
29	18		4	April 6, 1906..	4	2,043	82·8
	17		10	Farrow.....	4	1,793	84·2
	8		9	March 26, 1906..	4	2,192	88·7
	15		3	" 29, 1906..	4	1,905	90·2
	1		4	" 10, 1906..	4	1,835	93·5
	5		10	April 7, 1906..	4	2,650	95·0
	16		8	March 9, 1906..	4	2,209	95·6
	10		7	" 19, 1906..	4	2,555	98·2
	4		7	" 19, 1906..	4	2,640	102·1
	20		7	May 12, 1906..	4	2,626	102·3
	7		7	March 19, 1906..	4	2,520	105·7
	6		5	April 10, 1906..	4	2,808	108·4
	19		5	" 25, 1906..	4	2,557	119·6
	3		7	March 7, 1906..	4	2,862	119·9
	9		9	April 10, 1906..	4	3,082	121·3
31	9	Ayrshire.....	3	Jan. 18, 1906..	7	3,160	145·4
	6	"	5	" 5, 1906..	7	3,700	153·8
	10	"	10	April 4, 1906..	7	5,340	217·2
	3	Durham-Hereford.....	6	Jan. 10, 1906..	8	3,500	142·6
	5	Durham.....	6	April 6, 1906..	8	5,130	174·7
	4	"	3	" 17, 1906..	8	4,360	175·7
	8	"	3	March 28, 1906..	8	4,520	182·2
	2	Ayrshire.....	11	April 15, 1906..	8	4,720	183·9
	1	Canadian	4	" 25, 1906..	8	4,389	188·3
	7	"	7	" 20, 1906..	8	4,770	188·7

TABLE XXIV.—DIFFERENCE BETWEEN BEST AND POOREST COWS IN THE SAME HERD, AT ST. EDWIDGE, QUE., 1906.

Herd Number.	Number of Months.	DIFFERENCE IN YIELD.		Age of Cow with lowest yield.
		Milk.	Fat.	
		Lbs.	Lbs.	
1.....	9	4,270	151	12
7.....	9	1,900	92	4
14.....	9	1,600	84	6
17.....	8	2,430	68	4
18.....	8	2,000	68	5
8.....	8	1,760	65	7
13.....	8	1,650	59	9
15.....	8	1,430	58	5
31.....	8	1,270	40	6

Table XXIV is compiled to illustrate the difference between the best and poorest cows in several herds at St. Edwidge. In herd 1 the best cow gives in 9 months 151 pounds of fat more than the poorest cow in that herd, which animal is not a heifer by any means, but rejoicing in the mature wisdom of 12 years. In the column for the age of the cow with the lowest yield in the various herds, is to be found nothing under 4 years old.

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A glance over the records points this moral, that in many cases neither heifers nor farrow cows can be blamed for pulling down average herd yields of milk and fat; it is too frequently the mature animal that is the offender and would continue undetected unless revealed by such work as these associations undertake.

TABLE XXV.—COMPARISON OF HERDS AT ST. EDWIDGE, QUE., 8 MONTHS—MAY TO DECEMBER, 1906.

Herd Number.	Number of Cows.	TOTAL YIELD.		AVERAGE YIELD PER COW.	
		Milk.	Fat.	Milk.	Fat.
		Lbs.	Lbs.	Lbs.	Lbs.
21.....	8	45,713	1,836	5,714	229
8.....	10	53,980	2,084	5,398	208
18.....	5	16,525	680	3,305	135

AVERAGE RETURNS PER COW.

Herd 8 gave 72 lbs. fat at 22c. = \$15.84
 " 21 " 93 " 22c. = \$20.46 } More than herd 18.

Three herds in the St. Edwidge, Que., association are contrasted in table XXV, indicating that the 8 cows in herd 21 have an average yield of 229 pounds of fat, but the 5 in herd 18 can only muster up enough feed or vitality to produce 136 pounds. Who can measure the possibilities of 'what might be'?

The average receipts are seen to be \$20.46 per cow more in herd 21 than in herd 18 during 8 months.

TABLE XXVI.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, ST. CAMILLE, QUE.

30 days ending.	Total number of Cows.	AVERAGE.		
		Milk.	Test.	Fat.
		Lbs.		Lbs.
May 3.....	23	513	3.5	18.3
June 2.....	151	582	3.5	20.9
July 2.....	182	688	3.8	26.2
Aug. 1.....	180	612	3.8	23.4
Aug. 31.....	160	498	4.0	20.3
Sept. 30.....	130	429	4.3	18.8
Oct. 30.....	120	350	4.6	16.2
Nov. 30.....	58	243	4.9	11.9
Dec. 29.....	40	243	4.6	11.4

St. Camille, Que.

In considering the records of the 21 herds comprising this association, it is a matter of great regret that the members did not continue recording weights of milk for a longer period. There are only 13 herds for which figures are given for 6 months or more.

However, the totals available are both interesting and instructive; they point to the advisability that exists in many herds of a continuation of the system of record-

ing weights, so that intelligent steps may be taken in discarding cows with unsatisfactory yields, thus improving the general average, and maintaining only such animals as will come up to a reasonable standard of production.

In herd 28 it is found that the highest yield of any cow is 2,900 pounds of milk, containing 115.5 pounds fat; but the best yield in herd 16 is 4,240 pounds of milk and 180.8 pounds of fat, or an increase of 1,340 pounds of milk and 65.3 pounds of fat. The difference in the one herd between the highest and lowest yield of fat is only 23.6 pounds, indicating a lot of cows of fairly even production; but in herd 16 the difference is 52.4 pounds of fat in 6 months, the low yield being not from a young heifer, but from a 5-year-old cow. In herds 20 and 9 that difference in fat production still runs high, being 48 and 56 pounds.

Taking herd 8 it will be observed that the best cow gave 950 pounds less milk in 7 months than the best cow in herd 16 in 6 months.

Looking at the record of herds 19 and 32, a startling contrast is revealed. The best cow in herd 19, calving in March, gave only 3,115 pounds of milk in 9 months (which is a lower yield than many cows in this association gave in 4 months), while a cow in herd 32 shines forth as the producer of 6,183 pounds of milk in 8 months. There are evidently some treasures here, valuable cows worth all possible care and attention; while with a first-class creamery in operation there is every inducement to the farmers of the district to keep better dairy stock.

The figures given in herd 12 show the wide range of individual production in a period of 8 months. Cow No. 12, 7 years old, calving in April, gives only 124.5 pounds of butter fat, but cow No. 1, also 7 years old, calving a fortnight later, has 210.6 pounds of fat to her credit, just 86 pounds more. Leaving out the heifer, this herd may be said to contain 5 good, 3 medium and 4 poor cows. Such classification will probably fit a large number of dairy herds. Would it not pay better in every sense to concentrate energy and work with better material? The Babcock test is a wonderfully useful search light.

TABLE XXVII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. CAMILLE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	1	Grade	3	April 15, 1906..	4	2,035	99.1
	3	"	2	" 18, 1906..	4	2,480	118.7
	4	"	2	Mar. 16, 1906..	4	2,777	144.4
5	5	Canadian.....	3	April 13, 1906..	4	1,635	59.8
	7	Durham	2	" 19, 1906..	4	1,850	73.9
	4	"	7	" 18, 1906..	4	2,125	74.8
	3	Canadian.....	8	" 8, 1903..	4	2,135	77.1
	6	Durham	7	" 28, 1906..	4	1,940	80.8
	2	Grade Ayrshire.....	4	" 18, 1906..	4	2,215	89.9
	1	"	10	" —, 1906..	5	2,675	115.6
6	8	Hereford.....	8	May 17, 1906..	6	2,257	87.7
	2	½ Jersey.....	4	April 21, 1906..	6	2,050	92.2
	5	Holstein	12	" 26, 1906..	6	2,400	96.5
	1	Hereford.....	10	" 20, 1906..	6	2,638	106.7
	4	Holstein	6	" 14, 1906..	6	2,888	108.0
	7	Canadian	10	" 27, 1906..	6	2,645	108.9
	6	"	4	May 16, 1906..	6	2,742	115.7
	3	Grade	7	" 7, 1906..	6	2,996	119.9

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TABLE XXVII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. CAMILLE, QUE.,
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
7	4	1/2 Durham	6	May 22, 1906..	4	1,850	76.5
	3	"	4	April 30, 1906..	5	1,975	77.7
	2	"	9	May 3, 1906..	5	2,620	110.8
	1	"	5	Feb. 14, 1906..	6	3,535	150.4
8	9	Grade Durham		June —, 1906..	6	3,490	133.7
	3	"	2	April 5, 1906..	7	2,395	92.1
	6	"	5	Mar. 25, 1906..	7	3,400	118.9
	7	"	6	April 15, 1906..	7	3,620	118.9
	4	"	4	Mar. 10, 1906..	7	3,135	119.3
	2	"	8	" 15, 1906..	7	3,140	122.9
	1	"	6	" 23, 1906..	7	3,020	124.4
	8	"	6	April 5, 1906..	7	3,470	137.5
	5	"	7	Mar. 12, 1906..	7	3,680	146.6
9	5	Durham and Hereford	7	July 13, 1906..	4	2,230	154.5
	10	Grade Durham	2	May 30, 1906..	5	1,965	76.0
	9	"	2	" 3, 1906..	6	2,225	94.2
	14	"	2	" 4, 1906..	6	2,420	97.5
	2	Grade Durham	16	April 8, 1906..	6	2,500	101.1
	8	Grade	8	" 26, 1906..	6	2,937	110.1
	4	Durham and Hereford	10	" 30, 1906..	6	3,213	119.2
	3	"	7	" 16, 1906..	6	3,127	119.3
	11	Grade Durham	3	" 13, 1906..	6	3,015	121.6
	13	Grade	11	" 28, 1906..	6	2,795	127.5
	6	"	9	" 18, 1906..	6	3,585	130.1
	12	Grade Durham	10	" 10, 1906..	6	3,080	138.4
	7	Grade	7	May 18, 1906..	6	3,295	141.6
	1	Grade Durham	9	" 11, 1906..	6	4,039	150.4
10	8	"		April 15, 1906..	4	2,030	73.3
	6	"		" 25, 1906..	4	2,490	85.7
	11	Grade		Feb. 15, 1906..	4	2,020	89.5
	5	Grade Durham		April 12, 1906..	4	2,330	101.2
	7	"		" 26, 1906..	4	3,390	107.3
	4	"		" 13, 1906..	4	3,200	120.1
	3	"		" 12, 1906..	4	3,150	120.8
	9	"		" 14, 1906..	4	3,470	128.2
	1	"		" 18, 1906..	4	3,070	128.8
	2	"		" 15, 1906..	4	3,370	132.8
					7	2,180	111.5
	15			June 20, 1906..	7	3,278	132.5
	5		7	April 20, 1906..	8	3,270	124.5
	12	Durham and Canadian	2	May 24, 1906..	8	3,192	127.2
	14	"	8	April 24, 1906..	8	3,950	133.7
	13	Grade	5	May 21, 1906..	8	3,566	136.7
	9	"	6	Feb. 15, 1906..	8	3,300	138.6
	3	Grade Durham	8	April 24, 1906..	8	4,140	143.0
	10	Durham and Canadian	8	April 24, 1906..	8	3,860	154.7
	11	Grade	12	May 14, 1906..	8	3,860	154.7
	7	"	5	" 5, 1906..	8	3,710	158.1
	2	Grade Durham	12	April 27, 1906..	8	3,590	161.6
13	6	Grade	7	" 27, 1906..	8	4,310	162.3
	4	"	12	" 20, 1906..	8	4,280	167.0
	8	Ayrshire	7	May 3, 1906..	8	4,480	205.0
	1	Grade Durham	7	" 4, 1906..	8	4,800	210.6
	4	Grade			5	2,100	88.8
	1	"			5	2,505	95.6
	2	"			5	2,565	104.3
	3	"			5	2,855	105.2
	5	"			5	2,940	114.6

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TABLE XXVII. TOTAL PRODUCTION OF INDIVIDUAL COWS ST. CAMILE, QUE.

—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
14	2	.....			4	1,595	72.8
	5	.....			4	1,690	80.9
	4	.....			4	2,065	93.0
	1	.....			4	2,190	101.4
16	5	Grade Durham	8	.....	5	3,060	116.5
	6	"	12	.....	5	4,260	156.6
	3	"	5	.....	6	3,650	128.4
	2	"	8	.....	6	4,040	151.0
	8	"	5	.....	6	4,280	155.1
	7	"	7	.....	6	4,630	169.4
	1	"	6	.....	6	4,550	176.5
	4	"	9	.....	6	4,240	180.8
17	3	.....	9	April 29, 1906..	8	3,380	133.7
	6	.....	4	" 21, 1906..	8	3,625	143.6
	5	.....	4	May 17, 1906..	8	3,616	144.6
	4	.....	4	" 18, 1906..	8	3,135	152.2
	1	.....	9	April 13, 1906..	8	3,800	167.8
	2	.....	9	" 17, 1906..	.....	4,895	207.1
18	4	.....	5	April 8, 1906..	5	1,770	78.9
	3	.....	8	" 15, 1906..	5	1,780	80.7
	1	.....	9	" 3, 1906..	5	2,010	87.5
	2	.....	8	" 10, 1906..	5	2,145	93.3
	5	.....	7	June 1, 1906..	5	2,410	103.2
	7	.....	5	March 15, 1906..	5	2,295	105.0
	6	.....	5	" 23, 1906..	5	2,320	110.8
19	9	.....	10	April 16, 1906..	8	2,650	94.5
	10	.....	13	" 29, 1906..	8	2,980	107.9
	11	.....	7	May 15, 1906..	8	2,962	112.2
	6	.....	9	March 24, 1906..	8	2,755	116.2
	8	.....	13	April 7, 1906..	8	2,920	126.9
	2	.....	7	March 18, 1906..	9	2,720	107.7
	5	.....	5	" 23, 1906..	9	2,785	110.3
	3	.....	3	" 20, 1906..	9	2,490	120.9
	1	Holstein	7	" 16, 1906..	9	3,150	127.5
	4	.....	6	" 23, 1906..	9	3,115	129.9
20	6	Grade	3	May 24, 1906..	5	2,305	85.0
	1	"	4	April 8, 1906..	6	2,335	91.0
	4	"	12	" 30, 1906..	6	2,720	95.7
	2	"	4	" 20, 1906..	6	2,740	107.8
	3	"	9	" 26, 1906..	6	2,975	119.5
	5	"	8	" 22, 1906..	6	3,292	139.1
22	10	Hereford	6	.....	4	2,065	73.2
	8	Grade Durham	11	.....	4	2,780	87.7
	5	"	9	.....	4	2,435	94.5
	6	"	10	.....	4	2,875	96.3
	3	"	7	.....	4	2,780	101.6
	2	"	6	.....	4	2,950	105.7
	1	"	10	.....	4	3,320	108.0
	4	"	9	.....	4	2,875	110.6
25	12	Grade Durham	4	April 28, 1906..	6	3,350	129.3
	7	Grade	.....	.....	7	3,630	117.9
	2	Grade Durham	10	March 1, 1906..	7	3,060	136.7
	5	Pure Durham	5	" 15, 1906..	7	3,410	144.4
	8	Grade	10	" 10, 1906..	7	3,905	146.0
	4	Grade Durham	5	" 1, 1906..	7	4,120	160.0
	6	Pure Durham	9	8	3,280	132.0

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TABLE XXVII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. CAMILLE, QUE.
—Concluded.

Herd Number.	Cow Number.	Breed.	Aged.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
25	1	Grade Durham	4	April 15, 1906..	8	3,390	149.2
	11	"	4	May 1, 1906..	8	3,570	152.4
	9	Grade	6	April 30, 1906..	8	4,470	177.5
	3	Grade Durham	6	" 20, 1906..	8	4,290	181.6
	10	Grade	6	March 5, 1906..	8	4,140	182.8
27	6	Grade Durham		" 24, 1906..	5	2,937	111.8
	9	"		" 28, 1906..	5	2,880	111.8
	8	"		" 21, 1906..	6	3,155	116.2
	1	"		" 19, 1906..	6	2,995	117.4
	2	"		" 17, 1906..	6	3,630	122.1
	3	"		" 20, 1906..	6	3,452	127.3
	4	"		" 26, 1906..	6	3,853	132.4
	7	"		" 19, 1906..	6	3,197	132.8
	5	"		" 24, 1906..	6	3,619	136.2
28	1		4	April 17, 1906..	6	2,670	91.9
	5		15	" 10, 1906..	6	2,325	96.5
	2		9	" 25, 1906..	6	2,275	98.3
	6		4	" 17, 1906..	6	2,240	104.2
	4		10	" 20, 1906..	6	2,855	113.6
	3		14	" 17, 1906..	6	2,900	115.5
31	6	Grade	2	" 1, 1906..	5	1,540	61.9
	2	"	3	" 25, 1906..	5	1,845	75.1
	1	"	3	March 28, 1906..	5	2,505	97.5
	4	"	6	May 5, 1906..	5	2,550	101.2
	5	"	6	March 31, 1906..	5	2,845	113.8
	3	"	9	April 20, 1906..	5	2,965	117.8
32	3	Pure Durham	7	Feb. 1, 1906..	4	2,320	89.6
	2	"	6	April 3, 1906..	8	6,183	228.4
	1	"	4	" 6, 1906..	9	6,023	244.3

TABLE XXVIII.—AVERAGE YIELD—FOUR ASSOCIATIONS—1906, SIX MONTHS, MAY TO OCTOBER.

Association.	Number of Cows.	AVERAGE YIELD.		PROPORTION OF COWS YIELDING.	
		lbs. Milk.	lbs. Fat.	150 lbs. Fat or over.	Less than 100 lbs. Fat (Average 90 lb.).
St. Camille	98	3,201	123	14 per cent.	18 per cent.
Lothinière	119	3,268	132	27 "	12 "
St. Edwidge	251	3,540	143	36 "	4 "
North Oxford	209	4,823	163	66 "	1½ "

The aim of table XXVIII is to emphasize the difference in yield of butter fat in various localities. In St. Camille, Que., for instance, the members' records betoken the fact that only 14 per cent of the cows give 150 pounds of fat, or more, in 6 months; but at North Oxford, Ont., that percentage runs as high as 66. Conversely, at North Oxford only 1½ per cent of the cows give less than 100 pounds of fat, while at St. Camille 18 per cent are responsible for such a poor showing.

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TABLE XXIX.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, LOTBINIERE, QUE.

30 days ending	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
June 16	145	615	3·8	23·5
July 16	156	658	3·8	24·9
August 15	150	545	3·8	20·9
September 14	160	519	4·1	21·4
October 14	150	513	4·3	22·2
November 13	126	369	4·4	16·2
December 13	65	247	4·7	11·7

Lotbinière, Que.

The best individual record in this association is made by a cow in herd 8, which gave 5,220 pounds of milk in 6 months, beating any 7 months' performance of any cow. In the same herd is found the greatest difference between any two animals for 6 months in total yield of fat, a 9-year-old cow producing 64·8 pounds of fat less than the respectable yield of 208 pounds. This represents a difference of more than \$16 in 6 months in the value of the butter from the two cows.

In the group of herds with 7 months' records that difference in total fat production is still more accentuated, where in herd 19 a 3-year-old gives 96 pounds of fat less than the best cow in that herd, or over \$24 less return in 7 months. While in this association the low yields are mostly from young stock, two and three-year-olds, it should be remarked that there are also 6, 8, 9 and 12-year-olds in an undesirably conspicuous position. This indicates once more that recording and frequent testing are necessary to locate the animals with notoriously low production, otherwise they are bound to creep into herds and pull down the general average, while consuming feed that would yield a good cash income when fed judiciously to better stock.

TABLE XXX—TOTAL PRODUCTION OF INDIVIDUAL COWS, LOTBINIERE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	6	Ayrshire	5	April 20, 1906..	5	2,950	113·9
	11	Grade.....	3	March 2, 1906..	6	2,410	95·0
	5	"	7	April 25, 1906..	6	3,010	113·5
	3	"	3	Dec. 26, 1905..	6	2,860	122·1
	7	"	4	April 6, 1906..	6	3,560	130·9
	10	"	5	May 15, 1906..	6	3,850	142·2
	9	"	6	" 10, 1906..	6	3,900	142·7
	8	"	12	April 16, 1906..	6	3,990	144·1
	2	"	5	May 5, 1906..	6	3,700	151·9
	1	"	12	June 9, 1906..	6	4,265	155·4
	4	"	13	" 9, 1906..	6	4,577	155·4
2	10	"	3	July 1, 1906..	6	2,644	103·3
	3	"	6	April 28, 1906..	6	2,920	105·7

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TABLE XXX—TOTAL PRODUCTION OF INDIVIDUAL COWS, LOTBINIERE, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk. Lbs.	Fat. Lbs.
2	14	Ayrshire	2	March 17, 1906..	7	2,395	104.7
	11	"	3	" 15, 1906..	7	2,720	107.2
	13	"	3	" 29, 1906..	7	2,560	111.6
	12	Ayrshire	3	" 13, 1906..	7	2,870	116.5
	9	Grade.	4	" 14, 1906..	7	2,920	121.5
	8	"	4	May 14, 1906..	7	3,150	122.9
	5	"	5	March 18, 1906..	7	3,005	126.9
	4	Ayrshire	5	" 15, 1906..	7	3,315	131.0
	2	Grade.	7	April 1, 1906..	7	3,065	132.8
	6	"	5	" 23, 1906..	7	3,650	141.5
	1	"	11	" 14, 1906..	7	4,025	144.5
	7	"	5	May 17, 1906..	7	3,700	153.2
3	2	"	5	April 12, 1906..	4	1,365	56.2
	10	"	4	June 6, 1906..	4	1,442	60.6
	8	"	2	May 23, 1906..	4	1,225	61.3
	7	"	4	March 10, 1906..	4	1,433	65.9
	5	"	11	" 10, 1906..	4	1,540	67.7
	6	"	5	" 5, 1906..	4	1,623	69.8
	1	"	5	April 20, 1906..	4	1,575	70.2
	3	"	9	" 25, 1906..	4	1,750	79.2
4	5	Grade.	7	" 29, 1906..	5	2,230	78.8
	3	"	6	" 26, 1906..	5	2,080	84.8
	7	"	7	" 2, 1906..	5	2,160	92.4
	8	"	3	March 28, 1906..	6	2,200	84.8
	6	"	11	May 5, 1906..	6	2,430	96.3
	9	"	4	March 25, 1906..	6	2,300	96.5
	1	"	5	May 5, 1906..	6	2,780	108.9
	4	"	5	April 10, 1906..	6	2,690	109.3
	2	"	5	" 10, 1906..	6	3,690	127.9
5	2	Grade Durham.	12	June 9, 1906..	6	5,160	187.6
	8	Ayrshire.	2	May 20, 1906..	7	2,789	107.8
	3	Canadian.	5	April 15, 1906..	7	2,860	115.6
	9	Durham.	2	May 15, 1906..	7	3,270	124.9
	7	Grade Ayrshire.	6	March 30, 1906..	7	3,350	133.6
	5	Grade Durham.	3	May 12, 1906..	7	3,650	133.9
	6	Durham.	5	March 25, 1906..	7	3,460	139.2
	4	Grade Durham.	8	April 27, 1906..	7	3,600	143.7
	1	Ayrshire	15	May 10, 1906..	7	4,190	161.4
6	10	"	2	April, 1906..	7	2,685	112.4
	7	"	3	March, 1906..	7	3,030	137.9
	9	"	2	April, 1906..	7	2,915	147.0
	2	"	7	" 1906..	7	3,330	154.3
	8	"	4	" 1906..	7	3,875	159.8
	5	"	3	May 16, 1906..	7	3,725	176.9
	4	"	7	April 1906..	7	3,820	178.1
	3	"	6	" 1906..	7	3,685	178.2
	6	"	4	June 5, 1906..	7	4,025	179.2
	1	"	5	March 28, 1906..	7	3,900	179.2
7	5	"	4	"	4	990	43.4
	2	Grade.	5	April 27, 1906..	5	2,680	162.9
	3	"	6	" 24, 1906..	5	2,580	164.0
	4	"	4	" 16, 1906..	5	2,670	166.5
	1	Canadian.	6	May 1, 1906..	5	3,530	146.2
8	3	Ayrshire.	9	April 16, 1906..	6	3,450	143.2
	1	"	4	" 12, 1906..	6	3,470	148.9
	4	"	4	" 14, 1906..	6	3,860	157.2
	2	"	9	" 15, 1906..	6	4,710	195.3
	5	"	6	" 16, 1906..	6	5,220	206.6

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TABLE XXX.—TOTAL PRODUCTION OF INDIVIDUAL COWS, LOTBINIERE, QUE.—*Cont.*

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk. Lbs.	Fat. Lbs.
9	10	Grade.....			5	2,530	97·8
	5	".....			5	2,760	101·8
	6	".....			5	2,730	102·9
	3	".....			5	3,140	122·7
	2	".....			5	3,070	122·9
	4	".....			5	3,590	124·9
	9	".....			5	3,290	126·7
	1	".....			5	3,530	127·6
	7	".....			5	3,440	130·0
	8	".....			5	3,670	149·8
10	12	Grade Ayrshire.....	9	March 28, 1906..	5	4,790	211·1
	7	".....	2	April 7, 1906..	6	2,790	112·9
	8	".....	2	" 6, 1906..	6	3,230	123·9
	3	".....	3	March 27, 1906..	6	3,400	129·3
	4	".....	3	" 29, 1906..	6	3,760	138·4
	10	".....	4	April 9, 1906..	6	3,810	142·3
	5	".....	5	March 29, 1906..	6	4,080	154·6
	1	".....	5	" 20, 1906..	6	4,560	165·1
	9	".....	6	April 10, 1906..	6	4,180	171·2
	2	".....	8	March 18, 1906..	6	4,880	174·1
	11	".....	5	Feb. 27, 1906..	6	4,090	178·7
	6	".....	5	March 30, 1906..	6	4,560	188·8
12	6	Grade.....	8	May 15, 1906..	5	3,400	145·6
	1	".....	6	April 8, 1906..	6	3,020	130·1
	3	".....	4	" 18, 1906..	6	3,500	143·8
	5	".....	3	May 11, 1906..	6	3,500	148·2
	2	".....	5	April 14, 1906..	6	3,970	152·2
	4	".....	9	" 27, 1906..	6	4,880	171·8
13	9	Grade.....	7	July 22, 1906..	5	2,388	88·9
	6	".....	2	June 2, 1906..	6	1,735	83·8
	7	".....	5	April 27, 1906..	6	2,705	118·4
	4	".....	3	March 24, 1906..	7	2,230	100·5
	8	".....	8	" .., 1905..	7	2,045	104·0
	11	".....	8	April 5, 1906..	7	2,635	120·5
	1	".....	8	March 27, 1906..	7	2,970	121·8
	10	".....	6	April 10, 1906..	7	3,220	130·0
	5	".....	5	May 20, 1906..	7	2,758	138·1
	2	".....	15	" 22, 1906..	7	3,415	139·8
	3	".....	8	" 23, 1906..	7	5,100	190·8
14	6	".....	3	April 6, 1906..	6	3,110	126·7
	5	".....	5	May 18, 1906..	6	3,500	128·7
	4	".....	9	" 21, 1906..	6	3,374	130·9
	3	".....	6	April 23, 1906..	6	3,605	140·6
	1	".....	9	May 11, 1906..	6	3,815	142·6
	2	".....	9	" 9, 1906..	6	4,180	155·7
15	8	".....	2	March 1, 1906..	6	2,235	102·3
	7	".....	4	April 2, 1906..	6	2,530	109·1
	3	".....	2	March 2, 1906..	6	2,855	114·7
	6	".....	5	" 12, 1906..	6	3,165	128·0
	2	".....	7	June 2, 1906..	6	3,908	130·5
	1	".....	11	March 12, 1906..	6	3,985	146·8
	4	".....	13	May 5, 1906..	6	4,070	159·0
	5	".....	7	March 12, 1906..	6	4,395	161·1
16	1	".....	3	" 20, 1906..	6	3,140	137·3
	5	".....	7	April 10, 1906..	6	3,640	153·8
	8	".....	9	" 25, 1906..	6	3,920	157·3
	2	".....	4	March 25, 1906..	6	3,350	160·1
	9	".....	13	April 28, 1906..	6	3,650	160·9

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TABLE XXX.—TOTAL PRODUCTION OF INDIVIDUAL COWS, LOTBINIERE, QUE.—*Concl.*

Herd Number.	Cow Number.	Breed.	Aged.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs
18	3	Grade.....	5	April 5, 1906..	6	3,940	169·1
	10	".....	13	May 6, 1906..	6	4,110	169·3
	6	".....	8	April 12, 1906..	6	3,900	171·4
	4	".....	6	" 5, 1906..	6	3,790	173·0
	7	".....	8	" 20, 1906..	6	3,910	174·4
18	8	".....	6	" 13, 1906..	4	2,030	77·5
	4	".....	11	Feb. 10, 1906..	5	1,850	69·1
	7	".....	4	May 3, 1906..	5	1,730	72·4
	3	".....	11	April 3, 1906..	5	2,010	75·4
	5	".....	9	" 12, 1906..	5	1,860	76·0
	2	".....	8	March 8, 1906..	5	2,070	79·8
	6	".....	5	April 25, 1906..	5	1,920	81·7
	1	".....	8	March — 1906..	5	2,510	96·2
19	10	Grade.....	3	April 17, 1906..	7	2,065	76·7
	8	".....	3	March 18, 1906..	7	2,270	95·9
	11	".....	3	April 19, 1906..	7	2,325	100·4
	7	".....	5	" 18, 1906..	7	2,850	104·6
	3	".....	3	March 28, 1906..	7	2,405	109·4
	6	".....	5	May 12, 1906..	7	2,725	111·7
	9	".....	4	April 20, 1906..	7	2,665	118·4
	5	".....	13	" 16, 1906..	7	2,875	118·7
	12	".....	4	" 27, 1906..	7	3,265	125·9
	2	".....	12	May 20, 1906..	7	3,413	129·7
	4	".....	7	April 16, 1906..	7	3,045	134·8
	1	".....	8	May 24, 1906..	7	3,817	172·7

CHICOUTIMI AND LAKE ST. JOHN DISTRICTS.

In the seven following associations grouped in the Chicoutimi and Lake St. John districts, there are but few records running for four and five months or over. The summer was particularly dry, and following the consequent shortage in crop, numbers of cows were disposed of.

One herd in particular is worthy of note, that of No. 5 in the Chicoutimi association, belonging to the Seminary. The 5 months' record of 37 cows indicates an average production of 2,753 pounds of milk and 113·4 pounds of fat. Among the other Quebec associations with 5 months' records, the nearest approach to this is at Mansonville, where 44 cows average 2,808 pounds of milk and 113·3 pounds of fat. Cowansville runs only 2,077 pounds of milk, the average of 49 cows; St. Armand has an average from 26 cows of 95·1 pounds of fat.

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TABLE XXXI.—AVERAGE YIELDS OF 30 DAY PERIODS, CHICOUTIMI, QUE., 1906.

30 days ending.	Total No. of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
July 23	154	718	3.7	27.0
August 22	136	596	3.8	22.6
September 21	118	481	4.3	21.0
October 21	116	352	4.6	16.3
November 20	141	281	4.6	13.1
December 18	109	218	5.0	11.0

TABLE XXXII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, CHICOUTIMI, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	6	Guernsey	7	April 15, 1906..	4	1,430	65.3
	4	"	12	" 25, 1906..	5	1,530	73.4
	3	Grade	3	" 10, 1906..	5	1,680	74.9
	5	Canadian	13	" 20, 1906..	5	1,870	85.9
	2	Grade	10	" 10, 1906..	5	2,380	92.1
	1	"	10	May 5, 1906..	5	2,940	114.0
5	6	"	7	"	4	2,130	82.4
	41	"	"	"	4	2,290	89.4
	2	Jersey	6	April 12, 1906..	4	2,050	89.6
	5	Grade	7	"	4	2,520	94.2
	42	"	"	"	4	2,310	96.1
	16	Canadian	2	"	5	2,320	96.8
	29	"	"	"	5	2,570	97.9
	39	Canadian	"	"	5	2,710	99.4
	27	"	"	"	5	2,500	100.3
	18	"	"	"	5	2,680	103.7
	3	Brittany	7	March 25, 1906..	5	2,540	105.2
	22	Jersey	6	"	5	2,590	105.2
	32	Canadian	7	"	5	2,600	105.1
	8	"	4	"	5	2,610	107.1
	11	Grade	"	"	5	2,580	107.2
	40	"	"	"	5	2,770	107.5
	1	Ayrshire	4	Dec. 4, 1905..	5	2,490	107.7
	33	Canadian	4	"	5	2,730	109.4
	23	Grade Jersey	4	"	5	2,610	109.5
	15	Canadian	5	"	5	2,500	111.9
	25	"	"	"	5	2,830	112.0
	20	"	3	"	5	3,230	112.4
	21	"	5	"	5	2,830	112.5
	17	"	"	"	5	2,670	112.5
	14	"	"	"	5	2,780	114.1
	9	"	"	"	5	2,760	114.6
	31	"	"	"	5	2,650	115.5
	26	Canadian	"	"	5	2,750	115.7
	19	Brittany	9	"	5	2,720	115.7
	34	"	"	"	5	2,780	116.3
	23	Grade	3	"	5	2,760	118.1
	35	"	"	"	5	2,900	118.8
	24	Ayrshire	"	"	5	2,790	119.0
	12	Grade	7	"	5	2,710	119.1
	33	"	"	"	5	2,970	120.2

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TABLE XXXII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, CHICOUTIMI, QUE.
—Continued.

Herd Number.	Cow Number.	Breed.	Aged.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
5	10	Grade	7	Farrow	5	2,840	121.9
	13	"	7	"	5	3,040	124.3
	4	"	8	"	5	2,950	125.4
	7	Ayrshire	7	"	5	2,980	126.0
	37	"	5	"	5	3,120	126.0
	36	Ayrshire	6	"	5	2,850	129.9
	30	"	5	"	5	3,160	131.0
21	9	Grade	11	Farrow	4	1,235	50.4
	5	"	6	March 27, 1906..	4	1,690	64.3
	11	"	7	April 24, 1906..	4	1,840	73.1
	8	"	7	June 15, 1906..	4	1,970	81.4
	24	"	3	April 29, 1906..	5	1,640	70.0
	6	"	5	March 15, 1906..	5	1,975	90.4
	2	"	6	" 20, 1906..	6	1,923	82.2
	13	"	4	May 30, 1906..	6	1,985	83.4
	23	"	3	March 8, 1906..	6	1,790	85.7
	15	"	5	" 12, 1906..	6	1,800	86.3
	25	"	4	April 18, 1906..	6	1,965	89.7
	13	"	7	" 2, 1906..	6	2,265	93.2
	1	"	13	March 25, 1906..	6	2,340	94.6
	16	"	5	" 15, 1906..	6	2,225	95.5
	14	"	6	April 24, 1906..	6	2,505	98.4
	21	"	9	" 10, 1906..	6	2,610	103.7
	4	"	8	" 3, 1906..	6	2,655	103.9
	12	"	7	May 6, 1906..	6	2,365	104.4
	10	"	7	April 30, 1906..	6	2,485	110.5
	19	"	2	May 30, 1906..	7	1,552	67.9
	20	"	2	June 5, 1906..	7	1,617	74.0
	22	"	2	" 12, 1906..	7	2,117	83.4
	7	"	4	March 15, 1906..	7	2,785	115.4
	17	"	10	May 18, 1906..	7	3,375	131.3
	3	"	8	June 15, 1906..	7	3,242	148.2
22	10	"	5	"	5	1,310	58.3
	9	"	7	"	7	2,175	86.2
	2	"	7	"	7	2,265	92.2
	11	"	7	"	7	2,330	92.5
	12	"	7	"	7	2,800	101.6
	14	"	7	"	7	2,505	102.9
	5	"	7	"	7	2,395	104.2
	3	"	7	"	7	2,630	107.5
	1	"	7	"	7	2,435	113.2
	4	"	7	"	7	2,670	113.8
	13	"	7	"	7	2,850	122.2
	6	"	7	"	7	2,930	124.8
	8	"	7	"	7	3,940	131.3
	7	"	7	"	7	4,170	164.5
24	10	"	5	"	5	2,005	76.1
	5	"	5	"	5	2,385	81.7
	4	"	5	"	5	2,080	84.2
	8	"	5	"	5	1,940	84.4
	7	"	5	"	5	2,400	90.8
	3	"	5	"	5	2,450	92.8
	1	"	5	"	5	2,535	96.0
27	9	"	5	"	5	3,110	118.2
	8	Grade	7	May 8, 1906..	5	2,110	100.0
	10	"	10	June 28, 1906..	5	2,385	105.8
	3	"	13	" 25, 1906..	5	2,910	128.9
	6	"	10	April 17, 1906..	6	2,495	103.2

TABLE XXXII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, CHICOUFIMI, QUE.
Concluded.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
27	17	"	9	May 6, 1906..	6	2,405	107·9
	11	"	8	" 6, 1906..	6	2,485	109·1
	5	"	9	April 25, 1906..	6	2,565	110·9
	1	"	4	" 15, 1906..	6	2,365	112·2
	7	"	11	May 1, 1906..	6	3,015	113·7
	14	"	9	" 14, 1906..	6	2,610	114·5
	15	"	13	April 19, 1906..	6	2,830	118·7
	2	"	4	" 18, 1906..	6	2,355	120·5
	13	"	8	May 12, 1906..	6	2,470	122·2
	13	"	14	April 30, 1906..	6	3,080	124·9
	12	"	10	May 10, 1906..	6	2,970	126·0
	4	"	6	" 25, 1906..	6	2,810	130·7
	16	"	9	April 19, 1906..	6	3,030	131·0
	9	"	8	June 27, 1906..	6	3,100	135·5
28	6	"	9	April 4, 1906..	5	1,750	69·5
	3	"	11	" 16, 1906..	5	1,670	71·5
	1	"	13	" 4, 1906..	5	2,530	117·6
	10	"	3	" 2, 1906..	6	1,540	63·6
	7	"	6	March 4, 1906..	6	2,090	85·2
	2	"	13	" 15, 1906..	6	2,330	91·5
	5	"	9	April 10, 1906..	6	2,400	99·7
	4	"	11	" 19, 1906..	6	2,450	101·3
	8	"	10	" 16, 1906..	6	2,630	112·7
	9	"	7	" 16, 1906..	6	2,550	122·6

TABLE XXXIII.—AVERAGE YIELDS OF THIRTY DAY PERIODS, BAGOTVILLE (ST. ALPHONSE), QUE. 1906,

30 days ending.	Total Number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
July 16	250	767	3·6	27·6
August 15	150	582	3·6	21·1
September 14	73	494	3·9	19·5
October 14	82	455	4·4	20·1
November 13	191	312	4·8	15·1
December 13	60	265	5·2	13·9

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TABLE XXXIV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, BAGOTVILLE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk. Lbs.	Fat. Lbs.
1	3				4	1,735	66.3
	7				4	1,710	69.3
	4			May .., 1906..	4	2,090	72.6
	6				4	2,070	73.0
	15				4	1,950	73.4
	2				4	1,810	73.6
	17				4	1,730	74.9
	10				4	1,830	77.4
	9				4	2,250	79.0
	16				4	2,050	84.7
	13				4	2,400	86.7
	14				4	2,175	89.1
	11				4	2,005	89.3
	5				4	2,200	90.0
	18				4	2,460	92.4
	8			Jan. 8, 1906..	4	2,500	94.4
	12				4	2,280	97.2
	1				4	2,380	104.4
6	7				4	1,135	53.0
	3				4	1,385	56.9
	1				4	1,470	60.5
	5				4	1,460	61.0
	2				4	1,485	61.1
	6				4	1,365	62.6
	4				4	1,385	63.1
	9				4	1,440	64.6
	8				4	1,415	65.7
11	6				4	1,050	48.5
	9				4	1,570	64.9
	1				4	1,620	66.9
	2				4	1,490	67.2
	10				4	1,560	67.8
	4				4	1,730	69.7
	8				4	1,700	71.2
	5				4	1,790	75.3
	7				4	1,910	77.4
	3				4	1,730	78.4
20	16	Ayrshire	11	June 10, 1906..	5	2,350	97.3
	17	Canadian	16	April 10, 1906..	5	2,705	103.2
	13	"	8	May 7, 1906..	5	2,415	103.7
	1	Ayrshire	8	April 20, 1906..	6	2,965	108.1
	12	"	4	March 13, 1906..	6	2,830	109.5
	6	Canadian	13	May 18, 1906..	6	2,710	111.9
	7	"	3	April 10, 1906..	6	3,245	115.8
	5	"	8	May 22, 1906..	6	2,775	118.5
	11	"	4	April 14, 1906..	6	3,075	121.8
	2	"	10	" 28, 1906..	6	2,925	122.3
	8	"	6	May 2, 1906..	6	3,290	125.8
	10	Ayrshire	8	April 8, 1906..	6	3,455	129.7
	4	Grade	13	May 8, 1906..	6	3,760	132.4
	9	Ayrshire	7	April 19, 1906..	6	2,985	132.5
	15	Canadian	6	May 11, 1906..	6	2,855	133.2
	3	Durham	12	April 2, 1906..	6	3,525	137.5
	14	Ayrshire	10	March 10, 1906..	6	3,790	171.1
23	4		9	June .., 1906..	4	2,020	79.6
	22				4	1,800	88.7
	23				4	2,330	90.5
	21				4	1,930	96.6
	3		3	June 8, 1906..	5	2,500	94.4

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TABLE XXXIV.—TOTAL PRODUCTION OF INDIVIDUAL COWS, BAGOTVILLE, QUE.
—Concluded.

Herd Number.	Cow Number.	Breed.	Aged.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
23	9	.....	8	April 15, 1906..	5	3,050	102·5
	6	.....	4	" 20, 1906..	5	2,700	106·2
	18	.....	10	May 12, 1906..	5	2,780	107·9
	13	.....	3	" 8, 1906..	5	2,960	108·1
	16	.....	9	" 22, 1906..	5	2,980	109·4
	8	.....	16	April 15, 1906..	5	3,110	110·5
	14	.....	6	May 10, 1906..	5	2,870	111·9
	7	.....	7	April 20, 1906..	5	2,910	114·7
	17	.....	5	" 16, 1906..	5	2,850	117·5
	2	.....	5	May 15, 1906..	5	2,900	120·7
	15	.....	8	" 20, 1906..	5	2,660	124·0
	10	.....	9	April 16, 1906..	5	2,830	124·2
	12	9	May 7, 1906..	5	3,840	135·2
	11	7	" 7, 1907..	5	3,200	137·8
	1	10	June 3, 1906..	5	3,740	143·5
	5	6	March 9, 1906..	5	3,460	156·5

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SAMPLE OF SUMMARY SENT EVERY 30 DAYS TO EACH MEMBER OF ALL ASSOCIATIONS.

DOMINION DEPARTMENT OF AGRICULTURE, DAIRY COMMISSIONER'S BRANCH.

Cow Testing Associations.

The first test at Bagotville gives the very fair average of 27·6 pounds of fat per cow. The two largest herds of 34 and 37 cows are both above this average, proving what may be obtained through careful selection. Herd No. 23 has the highest average yield of milk; the lowest individual yield being 690 pounds.

It is satisfactory to note the individual records of 1,100 pounds of milk and over, which throw up in relief the 320-pound cow.

BAGOTVILLE, QUE.—LAKE ST. JOHN DISTRICT.—30 DAYS ENDING JULY, 16 1906.

Herd Number.	Number of Cows.	HERD AVERAGE.			HIGHEST INDIVIDUAL MILK YIELD.		LOWEST INDIVIDUAL MILK YIELD.	
		Milk.	Test.	Fat.	Lbs.	Testing.	Lbs.	Testing.
		Lbs.		Lbs.				
1	34	868	3·5	31·1	1,250	3·6	570	3·6
7	18	671	3·6	23·8	890	4·1	420	4·0
8	16	855	3·6	30·7	1,155	3·2	490	4·3
9	37	752	3·7	27·9	1,280	3·4	405	4·2
10	10	836	3·7	31·3	930	4·2	660	3·8
11	10	566	3·8	21·7	720	3·5	360	3·8
12	16	610	3·6	21·9	840	3·9	370	3·6
13	3	703	3·7	26·2	790	3·9	640	4·0
14	23	661	3·7	24·4	930	3·2	320	3·7
15	3	667	3·4	23·2	710	3·4	600	3·2
17	14	710	3·6	25·8	980	3·1	520	4·4
20	16	831	3·6	28·9	1,110	3·4	630	3·6
23	18	920	3·6	31·1	1,330	3·0	690	3·4
26	14	887	3·7	32·7	1,150	3·6	670	4·0
27	13	750	3·4	26·0	890	3·2	540	3·2

Number of cows tested, 250; average yield of milk, 767 pounds; average test, 3·6; average yield of fat, 27·6 pounds.

OTTAWA, July 26, 1906.

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TABLE XXXV.—AVERAGE YIELDS OF 30 DAY PERIODS, 1906, LATERRIERE, QUE.

30 days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test	Pounds of Fat.
July 9.	23	713	3·7	26·9
August 8.	24	573	5·6	21·3
September 7.	29	465	4·0	18·9
October 7.	9	400	4·3	17·7

Most of the records in this association covered a period of only two or three months.

TABLE XXXVI.—TOTAL PRODUCTION OF INDIVIDUAL COWS, LATERRIERE, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
8	2		8		4	1,710	63·3
	4				4	1,960	72·3
	3		5		4	1,975	76·2
	1				4	1,970	84·9

TABLE XXXVII.—AVERAGE YIELDS OF 30 DAY PERIODS, ST. FELICIEN, QUE., 1906.

30 days ending	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
July 2.	70	614	3·8	23·4
August 1.	35	578	3·7	21·5
" 31.	59	545	3·7	20·5
September 30.	57	436	4·1	17·9
October 30.	64	303	4·5	13·6

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TABLE XXXVIII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, ST. FELICIEN, QUE.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
2	4	Grade	3	June 7, 1905..	5	2,270	81.5
	5	"	3	June 28, 1905..	5	2,200	89.4
	6	"	5	Feb. 20, 1906..	5	2,120	91.1
	2	"	8	April 8, 1906..	5	2,570	91.3
	3	"	8	" 2, 1906..	5	2,460	98.6
	1	"	5	" 17, 1906..	5	2,760	122.1
4	7	Canadian.....	3	March 20, 1906..	5	1,885	73.5
	8	"	3	April 18, 1906..	5	1,725	74.5
	1	"	13	March 18, 1906..	5	2,155	82.0
	4	"	5	April 20, 1906..	5	2,105	85.9
	5	"	4	" 15, 1906..	5	2,120	87.2
	6	"	4	" 18, 1906..	5	2,095	88.5
	3	"	8	March 4, 1906..	5	2,820	103.9
	2	"	9	" 12, 1906..	5	2,655	109.6
6	5	Ayrshire.....		" 1906..	5	1,690	68.7
	4	Grade.....		" 1906..	5	2,090	85.1
	6	Ayrshire.....		" 1906..	5	2,120	85.7
	2	Grade.....		" 1906..	5	2,250	88.2
	3	"		" 1906..	5	2,090	95.8
	1	"		" 1906..	5	2,190	96.2

TABLE XXXIX.—AVERAGE YIELDS OF 30 DAY PERIODS, NORMANDIN, QUE., 1906.

30 days ending.	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
July 9.....	45	743	3.9	29.1
Aug. 8.....	47	623	3.9	24.8
Sept. 7.....	26	484	3.9	19.2
Oct. 7.....	41	502	3.9	19.7
Nov. 6.....	26	393	4.5	18.0
Dec. 6.....	36	276	5.4	15.1

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TABLE XL.—TOTAL PRODUCTION OF INDIVIDUAL COWS, NORMANDIN, QUE.

Herd Number.	Number Cow.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
1	5	Grade.....	6	April 4, 1906..	4	2,320	101·1
	7	".....	4	" 3, 1906..	4	2,440	104·8
	3	Canadian	6	".....	4	2,530	122·6
	8	".....	7	April 10, 1906..	4	3,090	125·7
	4	Ayrshire.....	8	March 20, 1906..	4	3,030	126·2
3	6	Grade.....	3	April 15, 1906..	4	2,010	78·5
	5	".....	6	" 2, 1906..	4	2,140	84·8
	1	".....	4	March 15, 1906..	4	2,085	86·5
	3	".....	7	" 30, 1906..	4	2,370	89·1
	9	".....	6	May 12, 1906..	4	2,190	90·4
	4	".....	9	June 15, 1906..	4	2,645	90·9
	10	".....	6	April 25, 1906..	4	2,045	91·7
	8	Brittany.....	7	" 16, 1906..	4	2,180	94·9
	7	Grade.....	3	" 28, 1906..	4	2,070	96·8
	2	".....	7	March 29, 1906..	4	2,395	105·4
6	5	Canadian.....	4	April 1, 1906..	6	2,275	105·4
	4	".....	5	" 8, 1906..	6	2,470	109·2
	3	".....	5	" 17, 1906..	6	3,290	134·7
	2	Grade.....	6	" 22, 1906..	6	3,610	137·6
	1	Canadian.....	7	March 22, 1906..	6	3,540	146·7
8	4	Grade.....	3	April 28, 1906..	5	1,715	62·8
	5	".....	3	" 30, 1906..	5	1,425	65·9
	6	".....	3	May 1, 1906..	5	2,182	84·7
	2	Jersey.....	6	April 21, 1906..	5	2,307	85·3
	3	".....	8	" 21, 1906..	5	2,330	86·1
	7	Grade.....	7	May 22, 1906..	5	2,167	90·3
	1	".....	6	April 17, 1905..	5	2,195	94·1
16	4	Canadian.....	..	Oct. 20, 1905..	5	2,340	112·5
	3	".....	..	April 25, 1906..	6	3,370	139·1
	2	".....	..	June 17, 1906..	6	3,755	160·8
	1	".....	..	June 16, 1906..	6	4,020	162·9

TABLE XLI.—AVERAGE YIELDS OF THIRTY DAY PERIODS, RIVIÈRE À L'OURS (ST AMBROISE), QUE. 1905.

30 days ending	Total number of Cows.	AVERAGE.		
		Pounds of Milk.	Test.	Pounds of Fat.
July 16.....	112	474	3·8	18·3
August 15.....	60	421	4·0	16·8
September 14.....	66	352	3·9	14·0
November 13.....	105	150	5·6	8·4
December 13.....	43	87	6·0	5·3

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TABLE XLII.—TOTAL PRODUCTION OF INDIVIDUAL COWS, RIVIÈRE À L'OURS, QUE

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months tested.	Milk.	Fat.
						Lbs.	Lbs.
1	5	Ayrshire		April 8, 1906..	5	1,750	70.4
	3	"		" 20, 1906..	5	2,110	73.4
	6	"		" 12, 1906..	5	1,950	86.2
	4	"		" 17, 1906..	5	2,230	86.2
	2	Canadian		March 15, 1906..	5	1,780	83.7
2	1	"		" 20, 1906..	5	1,970	83.9
	7	Grade	5	" 3, 1906..	4	900	43.2
	2	Canadian	8	May 20, 1906..	4	1,285	51.8
	5	"	7	" 25, 1906..	4	1,280	55.2
6	1	"	10	April 8, 1906..	4	1,510	57.0
	8	Grade			5	1,015	43.6
	5	"			5	1,100	49.5
	6	"			5	1,430	50.8
14	3	"			5	1,430	56.6
	7	"			5	1,400	57.3
	2	"			5	1,565	62.0
	4	"			5	1,510	63.0
16	1	"			5	1,515	63.7
	4	"			4	1,270	54.6
	3	"			5	1,440	54.1
	1	"			5	2,060	82.1
17	2	Canadian			5	2,080	82.6
	9	"			4	980	45.1
	15	"			4	960	46.4
	16	"			4	1,145	49.3
18	12	"			4	1,170	51.3
	8	"			4	1,190	53.3
	11	"			4	1,235	56.9
	2	"			4	1,240	57.0
19	13	"			4	1,165	57.3
	5	"			4	1,170	58.7
	17	"			4	1,255	61.1
	7	"			4	1,280	61.8
20	3	"			4	1,285	63.2
	19	"			4	1,285	63.5
	18	"			4	1,390	65.1
	6	"			4	1,300	73.3
21	1	"			4	1,670	75.4
	4	"			4	1,535	76.6
17	4	Canadian	11	May 18, 1906..	4	1,130	47.9
	6	"	8	April 22, 1906..	4	1,250	49.0
	5	"	6	May 2, 1906..	4	1,225	52.0
	3	"	4	June 29, 1906..	4	1,210	53.0
	2	"	3	April 20, 1906..	4	1,190	54.0
	1	"	3	Feb. 20, 1906..	4	1,295	56.9
	7	"	5	May 8, 1906..	4	1,270	57.1

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TABLE XLIII. AVERAGE YIELDS OF 30 DAY PERIODS, LA DÉCHARGE, (ST. CHARLES), QUE., 1906.

30 days ending	Total No. of Cows.	AVERAGE		
		Pounds of Milk.	Test.	Pounds of Fat.
Aug. 22.....	60	400	4.1	16.4
Sept. 21.....	36	335	4.1	14.0
Nov. 20.....	104	151	5.8	8.8
Dec. 20.....	50	106	6.3	6.4

TABLE XLIV. TOTAL PRODUCTION OF INDIVIDUAL COWS, LA DÉCHARGE, QUE., 1906.

Herd Number.	Cow Number.	Breed.	Age.	Date of Calving.	Number of Months Tested.	Milk.	Fat.
						Lbs.	Lbs.
4	5	Canadian			4	900	41.1
	6	"			4	950	43.4
	3	"			4	970	43.8
	7	"			4	1,100	44.2
	4	"			4	1,030	45.3
	8	"			4	1,270	54.1
18	5	Grade Ayrshire.....	6		4	885	40.9
	4	"	7		4	955	47.0
	1	"	11		4	1,235	49.2
	2	"	10		4	1,190	50.4
	3	"	9		4	910	53.3

In addition to the above regularly organized associations, some further work was undertaken on the request of some farmers for a short time at Culloden, Ont., and Jonquières, Que. The results are tabulated below.

TABLE XLV. AVERAGE YIELDS OF 30 DAY PERIODS, CULLODEN, ONT., 1906.

30 days ending	Total No. of Cows.	AVERAGE		
		Pounds of Milk.	Test.	Pounds of Fat.
Aug. 17.....	47	711	3.3	23.9
Sept. 18.....	48	693	3.5	24.3
Oct. 18.....	38	581	3.7	21.8

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TABLE XLVI. AVERAGE YIELDS OF 30 DAY PERIODS, JONQUIERES, QUE., 1906.

0 days ending	Total No. of Cows.	AVERAGE		
		Pounds of Milk.	Test.	Pounds of Fat.
Nov. 27.	48	175	5.3	9.3
Dec. 26.	32	127	5.7	7.2

SOME GENERAL CONCLUSIONS.

Some of the more important points revealed by a careful scrutiny of the individual yields are:—

In order to ascertain the value of a cow it is necessary to test as well as weigh her milk. Frequently there is a gross difference of 50 pounds of fat in the milk of two cows giving 4,300 pounds of milk each. Butter fat is the valuable constituent of milk.

Many farmers are not only working hard, but working overtime unnecessarily, through keeping 12 cows when 7 would yield as much milk and butter fat.

Cows of mature age lower the average production of a herd just as often as heifers. Many cows are evidently kept too long.

Because his brother farmers in Ontario and Quebec are keeping (a) cows that yield 247 pounds of fat in 7 months, (b) cows that earn \$66 in 8 months, there is every reason why the 'average farmer' should feel greatly encouraged in the effort to improve his stock.

Careful selection of good individuals, intelligent breeding to sires of proven worth, and liberal feeding, are the sure foundation stones in building up a profitable dairy herd.

Systematic weeding will speedily increase the average production of the herd. In one lot of 29 cows, no fewer than 11 of them yielded 20 pounds of fat below the average for the season.

If a dairy herd has a certain 'average' production of milk and butter fat, it follows necessarily that some individual cows in the herd must be below that average, while others must be above it. The work of these associations indicates unmistakably that it pays the ordinary farmer, and pays him well, to keep records of each single cow in order that those below the average may be detected. There is no other way of discovering them. Then should follow better care, better breeding, better management, better feeding; so that those above the average may be maintained in that enviable position and still further improved. Information alone will not effect a reformation. Succeeding a careful scrutiny of the individual records there must be intelligent action. Then the ordinary factory patron will reap a good harvest, not only in augmented income from the same number of cows, or even not so many; but in the vastly increased satisfaction, interest and stimulation that improved stock and improved methods will bring.

