



A Representative of the High-class Young Ayrshire Bulls
To be sold at Robert Hunter & Sons' Sale, at Maxville, Ont., June 28th.

	$750 \times (1.05)^4 =$	\$ 911.64
The second crop	$750 \times (1.05)^3 =$	868.16
The third crop	$750 \times (1.05)^2 =$	826.88
The fourth crop	$750 \times (1.05) =$	787.50
The fifth crop	$=$	750.00
Total		\$4,144.18

Comparing this with the balances already determined, we see that it is the same, within \$21, as the balance on the installment plan. Hence, in five years' time, the "50-acre" farmer who drains 10 acres of his land each year has his drainage all paid for, and has as much cash in pocket as if he had not drained at all. In the next five years, when there is no more drainage to pay for, his drained land will net him \$5,748.06, instead of undrained land netting \$4,144.18, a difference of \$1,603.88 in favor of draining. And each succeeding period of five years will show a like difference.

Comparing still further, we see that if he drained his whole 50 acres this year, he would be better off in actual cash at the end of five years by the sum of \$967.98 than if not draining at all. The next period of five years, all draining having been previously paid for, his drained land would bring him, in crop and interest, \$6,907.99, as against \$4,144.18, a clear gain of \$2,763.81 in favor of the drained land, and this difference would be repeated every five years.

But this is not all: The drained land is in better shape, and the farm is worth more than if undrained. Only last week, one of the practical farmers of Kent County told me that the land he drained a year ago was worth \$25 an acre more. That this is so, is proven by the following case: A farm in Lincoln County, whose township, concession, lot, and owner's name I could give, was bought at \$6,000 about two years ago. The sum of \$2,000 was spent in draining it last year, and the farm has since been sold for \$12,000. So that drainage, besides increasing the farmer's actual cash balance greatly, enhances the value of his land.

It should be noted, in closing, that in the estimates made, the increase due to drainage has been placed at the very reasonable amount of \$10 per acre, while, as a matter of fact, the average increase is considerably in excess of this sum. No account has been taken of the cost of tillage, harvesting and handling the product. Tillage costs considerably more on the undrained, but the harvesting and handling is higher on the drained, so that these may fairly be taken as balancing, thus eliminating from the computation all factors but drainage.

WM. H. DAY.
Ontario Agricultural College.

Let the Birds Alone.

A Pennsylvania man, in recounting his experience on a small farm, tells how a bull-headed neighbor came along one day to borrow a gun to shoot some birds which he said were destroying his wheat. The loan of the gun was refused, but, in order to gratify the man's curiosity, the owner of the gun shot one of the birds and opened its crop. He found in it two hundred weevils and but four grains of wheat, and these four the weevil had burrowed. Here was a sermon for stupid men and boys who go about killing birds which, with rare exceptions, are really the best friends of the farmer. By actual observation, thousands of grubs and predatory insects are daily destroyed by every pair of birds, particularly when young are being reared. Nearly 200 larks have been taken from the gizzard of a single bird. In fact, it is tolerably certain that, were

it not for the natural protection thus provided by Providence, the farmer would succumb in his struggle with the ever-increasing hosts of insects, in spite of the invention of spraying, which is limited and intermittent in its operations. That every sensible man and woman should, therefore, do all in their power to preserve the native song birds, is the conclusion to be drawn.

June Bug Data for Dr. Hewitt.

Editor "The Farmer's Advocate":

In the June 1st issue of "The Farmer's Advocate" I notice the request of C. Gordon Hewitt, the Dominion Entomologist, for information regarding depredations of the June beetle. Last year, the pastures in East Middlesex were burrowed and greatly damaged in all directions by the grubs, but I never saw the beetles so numerous as they were during the last ten days of May. After sundown, the hum of them in the trees resembled a small tempest. Many trees were almost entirely denuded of foliage, the varieties suffering most in my observation being the ash, elm, butternut and horse chestnut. Maples and other sorts alongside were practically unmolested. I would like Dr. Hewitt to explain the why of this to your readers. The surface of the leaves of the varieties named is rougher than others, possibly giving the bugs a better foothold. Or is it that the flavor is more to their liking or the texture of the leaves softer and more easily chewed? Many people are alarmed lest next year the land will be devastated with the larvae.

Middlesex Co., Ont.

OBSERVER.

THE DAIRY

A World's Champion Ayrshire Cow

The Secretary of the American Ayrshire Breeders' Association announces the yearly record of production of the Ayrshire cow Netherhall Brownie IX., 23985, owned by J. W. Clise, of Seattle, Washington, which is stated to be a world's record, both of milk and butter-fat, for an Ayrshire cow, as far as heard from. This cow has an official record for 365 consecutive days of 18,110 pounds of milk, and 820.91 pounds butter-fat, equal to 958 pounds butter. She was tested under the supervision of the Washington State Agricultural College.



Group of Recently-imported Ayrshire Heifers

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The secretary also publishes the official records of a large number of cows of various ages having recently finished their year's test and been admitted to Advanced Registry. The highest in the two-year-old form is Kaziah of Highland, who produced in the year's test: milk, 10,970 pounds; butter-fat, 326.94 pounds; butter, 497 pounds. In the three-year-old form, Mabel of Sandhill gave: milk, 12,857 pounds; fat, 502.06 pounds; butter, 585 pounds. In the four-year-old form, Maud Douglas made 9,529 pounds milk, 357.91 pounds fat, 421 pounds butter. In the mature form, Rose Morning produced: milk, 12,565 pounds; fat, 416.24 pounds; butter, 486 pounds.

The average production of the 31 cows of the various ages in the list reported is, in pounds, as follows:

	Milk.	Fat.	Butter.
Two-year-old class.....	7,871	317	368
Three-year-old class.....	9,211	372	433
Four-year-old class.....	9,166	369	432
Mature-cow class	10,081	392	455
Whole, cows and heifers	9,082	362	422

The advanced registry system has done wonders in bringing to light the great dairy ability of the Ayrshire cow, and what has been done is but the beginning of a demonstration of the dairy capability of this excellent dairy breed.

Grading Cream.

B. D. White, who has had charge of investigations into the conditions of dairy manufacture for the United States Bureau of Animal Industry, is the author of an article in the Department of Agriculture Yearbook on "Grading Cream," which will interest "Farmer's Advocate" readers who are creamerymen or patrons. Mr. White takes the ground that there is need at many creameries for a change in the method of paying for cream. Competition, especially since the advent of the hand separator, has driven American creamerymen into accepting cream, regardless of quality, age or condition, until a large proportion of it delivered at the present time is simply deplorable. The result has been a deterioration in the quality of creamery butter. From information received at the principal butter markets it appears that only 7 to 10 per cent. of the butter received grades "extras," and the other 90 to 93 per cent. must be classed as "firsts," "seconds" and "thirds," the last two not being considered of high enough quality to satisfy the taste of the average consumer. In many creameries there has been no incentive for the patron to deliver good cream, as the price paid was the same for all—good, bad or indifferent. In some localities, however, the demoralizing effects have driven creameries to the adoption of a plan of paying by quality, with the result that much improvement has taken place. A compilation has been made of the prices paid to creamery patrons in 1909 for butter-fat, and the price received for butter in the two classes of creameries—those receiving sweet cream, and those receiving sour—in Minnesota, Wisconsin and Iowa. The average paid per pound of butter-fat in the three States by 75 creameries reporting was 31.30 cents, and for sour cream by 233 creameries it was 29.23 cents; and received, respectively, per pound of butter, 28.61 cents and 27.63 cents. This was a difference of 2.07 cents per pound of butter-fat in favor of the sweet cream, or more than sufficient to pay for hauling the cream from the farm to the creamery. The difference of .98 cent per pound in the price of butter represents a loss of \$2,225,580, were the ratio applied to the total production of the three States; but were the butter sold on grade, the difference would be really about 6 cents, instead of .98, or a loss of approximately or nearly \$10,000,000. It is believed that, by a cream grading system such as Maine has adopted, the proportion of butter that would grade "extras" could be raised to 90 per cent.