merymen. h attention has been

amery butter in ar of uniformity, partter-grading service that there has been last few years have nt in Ontario butter re of the creamers he production, in as ble, of a high-class bject discussed by of Western Ontario ad to say are worth merymen interested tern Canada. The

from his address: the ideals of the Western Ontario They ask, 'What and selling butter? al is a standard of then have we lost? form butter, butter Intario creameries hand has largely you could purchase or more factories We have also lost ion in our finished sell, we found no good prices have ater returns. The recent years has irer. At any rate creameries. ing for the future.

Plus Cent.	_
vest-	Labor Income
14 15 17 17 19	\$ 494 720 916 1,255 1,353 1,610

st careful planning ped by too cheap

this, that the ease lack of criticism quality of cream output of butter. Western Ontario hink I am safe in butter than any Quebec. There ern Ontario, and there are a great many), made in

hat changes may ight come. The up and take over st now, I under-t all? If part is

would materially ne trade may be ada. This would ow it will, in the to say. We do anything. One increase with the making, if we are

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tion of butterto the necessity ing of a uniform we do? I want d, are essential manufacture; 2

irst we want a se more frequent nese two should icer to grade his , six or ten days centralizers of se anyway. I ream is shipped rizer and doped n an advertiser st is the main

reason for not getting a more frequent delivery. The hidebound adherence to that old adage 'Competition is the life of trade,' has to answer for the strangling of

FEBRUARY 6, 1919

a lot of profit to both farmers and factory men.
"Next, let me speak of making the butter. It may be some time before we will have the kind of cream we desire, and in the meantime. and I want to emphasize this there isn't anything that will help make the kind of butter that will sell on any market as much as pasteur-I attribute any success I have had in making butter to frequent collection of cream, having it as sweet

as possible, and to pasteurization. "Some Ontario creamerymen have questioned the advisability of heating the cream higher than 150 degrees. I am not going into a scientific discussion of this question; I wish to keep to the practical sides. I may say here, however, that I have been of the opinion for some time that we should have in connection with the dairy industry of this province a department of research, with a bacteriologist and a chemist having their whole time devoted to dairy research. Returning to the question of temperature, I think the temperature recommended (170 degrees for not less than 10 minutes) is a safe one. For the sake of uniformity should we not make an effort to follow closely the recommendation. Last year, 1918, out of 123 factories in Western Ontario only 26 pasteurized. There is surely room for progress. Notwithstanding the excellent instruction given at our dairy schools and by our travelling instructors, I really believe every butter-maker in Western Ontario is a law unto himself. Take the matter of salting, for instance. In a report given last year at Stratford, by Mr. Scott, official grader, the salt content of 241 churnings varied from .9 to 6 per cent., surely variation enough to suit everybody. We have learned that in the butter com-

mandeered there was a great variation in color and texture, not to speak of flavor. We cannot expect to take a high place in export trade with such a variety in our butter.

"Can we not get a uniform butter throughout Canada by adopting uniform methods of making, by agreeing on a uni-form standard and setting ourselves to attain it. One thing that will help con-One thing siderably in this respect is 'selling on grade.' This brings me to 'marketing. The one way to sell that is fair to both buyer and seller, is on the graded basis. Some may question the capability of one man, no matter how qualified he may be, to grade butter under all conditions. This question has come to me from both buyers and sellers, Personally, I

think one man, the best man for the job, should do the grading. Mistakes may be made. Butter may not turn out as graded. It is only just that in such cases provision be made for re-adjustment I think those cases will be the exception."

Ayrshires Qualify in R.O.P.

A list of Ayrshire cows and heifers that have qualified in the Record of Performance test from December 1, 1918, to January 13, 1919, includes six in the mature class, eight in the four-year-old class, six in three-yearold class and twelve two-year-olds. The mature class is headed by Lady Jane, with 19,135 lbs. of milk testing 3.67 per cent. fat, or a total of 704 lbs. of fat. Only one other cow in the mature class, Humeshaugh Lassie, gave over 9,000 lbs. of milk. Four of the eight cows in -old class have records of more than 10,000 lbs. and these are headed by Nub of Fairmoor with a record of 12,062 lbs. of milk, 505 lbs. of fat, with a test of 4.18 per cent. The three-year-old class is led by Anna of Dallrock, 10,530 lbs. milk, testing 4.05 per cent and making 427 lbs. fat. Snowdrop of Hickory Hill 2nd has a long lead in the two-year-old class, with a record of 10,933 lbs. milk and 449 lbs. fat, with a test of 4.11 per cent.

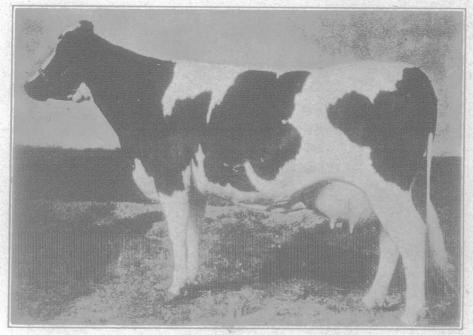
Holstein Records in December.

Twenty-one cows and heifers were admitted to the R. O. P. as the result of their semi-official yearly records. They are led by Kate Casselton De Boer, with 20,903 lbs. milk and 617 lbs. fat. The four-year-old class is headed by Duchess Abbekerk Lulu with 17,758 lbs. milk and 601 lbs. of fat. Colony Cora Cornucopia, the best of seven two-year-olds, make a record of 14,243 lbs. milk and 465 lbs. of fat. In the official records there were sixty-seven Holstein cows and heifers acthere were sixty-seven Holstein cows and heifers accepted for entry in the Record of Merit. Three new 30-lb. cows were added to the list and the mature class of twelve was headed by Maple Grove Hesseltje De Kol

with a record of 755.9 lbs. of milk, 26.12 lbs. fat, and 32.66 lbs. butter. Helbon Beauty Bonheur comes second, and Fairview Posch third. The latter milked 110.9 lbs. in one day. The junior four-year-olds are headed by Cherry Grove Trina with 30,48 lbs. butter from 590.3 lbs. of milk. There are ten entries in the senior threeyear-old class, five among the junior three-year-olds, and fifteen among the senior two-year-olds; the latter being led by Raymondale Ruby with 545.3 lbs. of milk, 19.67 lbs. fat and 24.59 lbs. butter. This record was made at the senior two-year-olds; the latter made at the age of two years, eleven months and twentynine days.

The Colorado Agricultural College advises as follows regarding the weaning of calves:

"As soon as a calf will eat, hay or grain should be given. The calves should be fed in stanchions so that each one will get its proper share. Calves not so fastened sometimes learn to suck each other, and this is undesirable. After feeding the milk, place in the manger a box containing a small amount of grain, preferably oats and bran in equal parts, increasing the amount to correspond with the appetite until the animals are large and well developed. All the hay they will eat should be given, using preferably a mixture of clover, or alfalfa, and some kind of grass hay. The feeder must be guided entirely by the condition of the calf in determining how much of any one food shall be given. While ill results may come from feeding too much, the aim should be to feed sufficiently well to see use large. aim should be to feed sufficiently well to secure large daily gains. If properly fed and taken care of, the skim-milk-fed ca'f should weigh from 500 to 800 pounds at one year of age."



Tilly Alcartra.

California Holstein-Friesian with a record at 9 years of 33,424.8 lbs. milk and 1,322.25 lbs. butter, Photo taken at 5 years of age.

Watch for disease in the flock.

Variety is the spice of life-its what makes the hens

POULTRY.

If you want eggs next winter hatch the pullets in March or April.

Early hatched pullets usually lay better than hens during winter-remember this when planning for the spring crop of chicks.

les having natural fondness for stock it is neces sary for the poultryman to be a keen observer and to possess good judgment in the matter of feed.

If the weather is dull and very cold, don't blame yourself unnecessarily because the hens have slackened in egg laying. They can't help it and you can't do much

The man who can't learn anything more about his business is ready to lay down his earthly burdens. See how many helpful hints you can pick up from others, merely by keeping your eyes open.

The number of working hours a hen can get in between daylight and dark has an influence on egg production. Professor W. R. Graham, O. A. C., Guelph, says, "where the general condition of the housing and feeding are fair to good, it is quite possible that by maintaining fourteen hours of light (in winter) for the hen to eat, a twenty-five per cent. or more increased production may reasonably be expected."

Artificial Lighting.

Some time ago we published results that had been secured at the Ontario Agricultural College with regard to increase in egg production by the use of artificial light to lengthen out the short winter days. There have come to hand some figures as to the result of two years work at the Central Experimental Farm, Ottawa. This work was conducted during 1916-17 and 1917-18, the first season with work was conducted during 1916-17 and 1917-18, the first season with two pens of Barred Rock pullets, twenty birds in each pen, and during the season of 1917-18 with two pens of Barred Rock pullets and two pens of Leghorn pullets, twenty birds in each pen. In each pen of twenty birds supplied with light, two tungsten 40-watt lamps were used. Beginning with November when the days became short and continuing until the middle of March when artificial lighting was unthe middle of March when artificial lighting was unnecessary, the light was turned on at six o'clock in the morning and left until daylight, then turned on again in the afternoon before dusk and left until nine o'clock. Commenting on the results from the two seasons' work the Poultry Department of the Central Experimental the Poultry Department of the Central Experimental

Farm, writes as follows:

"In the 1916-17 test the light pen laid 1,106 eggs with a total value of \$54.93. The cost of feed was \$22.53, the cost of light \$2.40, a total cost of \$24.73. This gave a balance over cost of feed and light of \$30.20 or a cost per dozen eggs of 26.8 cents. The dark pen laid 636 eggs with a total value of \$29.46; cost of feed was \$21.09. This gave a balance over cost of feed of \$8.37. The cost per dozen eggs was 39.8 cents.

"In 1917-18, the yields were not high in either case, and the total difference in egg yield in the six months was

"In 1917-18, the yields were not high in either case, and the total difference in egg yield in the six months was by no means large, but the forty birds with light gave a better revenue than the forty without light. This difference was made up in the time that the eggs were received. Those with the light gave their heaviest yields in December and January, while by far the heaviest months for the Leghorns without light were March and April and for the Rocks January and February.

"The total figures from the two pens with the light

"The total figures from the two pens with the light were: Number of eggs, 2,470, value \$136.32; cost of feed, \$55.48; cost of light, \$3.20; balance, \$77.64 or a cost of 28.5 cents per dozen. Those without light laid 2,242 eggs; value, \$118.90; cost of feed, \$60.01; balance, \$58.94 and cost of one dozen range 22.1 cents. For both \$58.94 and cost of one dozen eggs 32.1 cents. For both years, the light pens laid 3,476 eggs, at a market value of \$191.25. The feed and light cost \$83.41 leaving a balance of \$107.84, or a cost per dozen of 28.7 cents. The dark pens laid 2,878 eggs worth \$148.36. The cost of feed was \$81.10 and the cost of one dozen was 33.8 cents.

cents.

"The conclusion may be drawn that for early winter eggs during the short days, the light does increase the egg yield but later in the season the yield is not as heavy as with birds that have not had the light. The adiability of using light, therefore, will depend upon what visability of using light, therefore, will depend upon what is wanted. If early winter and high priced eating eggs are the object the lights are an advantage; if eggs during the hatching season are desired, the lights are a dis-

Of Benefit to Poultrymen.

EDITOR "THE FARMER'S ADVOCATE":

Having noticed in a recent number of "The Farmer's Advocate" an article entitled, "Let Us Hear From Farmer's Advocate Readers!" I am hereby obeying the order. The writer of the article said he wished to hear from readers who had never written before, and that the

worse the letter the better, so I am now trying my luck. I thought for some time before I could get a subject which I considered suitable so I have chosen "How I Feed My Hens." My flock consists of eighty-five hens, and they lay nearly as well during the winter months as in the summer, which seems a rare thing to most people that I tell. The way I account for this is the feeding and their surroundings. I find it pays to keep hens clean, with plenty of fresh straw on the floor of the pen. I feed them a gallon and a half of wheat quite early in the morning, which I throw in the straw so the hens will have to work for their feed, as I believe that in cold weather have to do some work to been them. in cold weather hens have to do some work to keep themselves warm. About nine o'clock every morning I give them a pail of warm bran mash, with some kind poultry spice well stirred through it. another very important fact is their water. It must be clean and I believe if the water be warmed every morning to take the cold chill off it during the cold weather that pen in which I keep about four inches of ashes for the hens to dust themselves in, to prevent lice, and I am sure this is a sure preventive from this troublesome

Hoping this is of benefit to every keeper of poultry, and that they will believe in all I have said.

Northumberland Co., Ont.

L. R.

One of the most perplexing and interesting problems is the selection or breeding of high egg producers. Results to date at the Ontario Agricultural College would suggest that it is a question of isolation and pro-geny testing; the isolation of the good laying hen and the sons of the good layers, mating these together and test-ing the progeny. Later comes the isolation of good breeders of high performers, both male and female. A pullet that lays over 30 eggs in November, December and January, and over 150 eggs for 12 consecutive months, is considered a good layer. Late-hatched pullets that will not lay well during the winter but do well during June, July and August may also be regarded as good layers, the lack of winter eggs being attributable to late hatching.