

per 100 condensed 3% fat	Net per 100 lbs. market milk
2.75	\$2.90
2.75	2.90
2.75	2.90
2.40	2.90
2.25	2.30
2.35	2.30
2.50	2.42
2.50	2.42

comparisons, to the price
as the value of whey

milk, never so great;
and too few people to

ALPHA.

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Dominion Department
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no doubt, the point on which future efforts should be concentrated to remedy.

A general summary of the results obtained through the competition will be presented at the various Dairy-men's Conventions to be held throughout the Dominion during the coming winter. A series of samples illustrating the most striking points noted will be at the service of the conventions, dairy schools and the produce trade.

In the opinion of the writer this Educational Scoring Contest should be carried on next season as there is every evidence of the highly educational value of the work. With the knowledge gained this season, the 1920 contest could, no doubt, be conducted to even better advantage with efforts concentrated upon certain most important features.

F. HERNES.

Secretary Western Ontario Dairymen's Assoc.

Irish Milk Shortage.

Reports from Ireland indicate a falling off in milk production within the past eighteen months of from 20 to 25 per cent.; many dairymen with herds of from 30 to 150 cows having gone out of business. Dairy cows have been exported and others fattened and killed for beef. A decline in the number of heifers in calf is also recorded.

Butter exports declined from 816,000 cwt. in 1914 to 456,000 cwt. in 1918. There was a very large increase in the export of cheese for which there was loud call in England, which was getting heavy supplies of margarine. At the same time, in Irish towns the demand was for more milk. A Departmental Committee of Investigation learned that a gallon of milk would make a pound of cheese, and two and a half gallons a pound of butter. The former sold for 1s. 10d., and the butter for 2s. 6d., consequently the farmer figures that he was making over 80 per cent. more out of cheese. Condensed milk production was also increasing.

The reasons for decline given were that beef production and some tillage crops were found more profitable, with less labor. A dairy cow, which a few years ago cost £18 and would yield probably five gallons of milk per day, now cost £55, and the owner would be lucky to get three gallons of milk from her, and this decline was attributed to the use of beef-type sires. According to evidence given, land rentals, labor and foodstuffs for cattle had actually trebled in cost since pre-war days, and practically the only remedy feasible was higher prices for dairy products, or, expressed in currency, for whole milk delivered in Dublin, one shilling per quart in winter and 9d. in summer, and other products in proportion.

POULTRY.

Egg Laying Contests.

EDITOR "THE FARMER'S ADVOCATE":

It is now recognized that Egg Laying Competitions have been one of the most compelling forces in the recent very rapid development of the poultry industry; and now that greater production is so essential in our national reconstruction work, it is natural to turn to the same means for added impetus and inspiration.

The beginning was small. Mr. Holmes Tarn, founder of the Utility Poultry Club of England, arranged for the first egg laying competition in 1897. There were seven entries of four pullets each, and it ran for only sixteen weeks; twenty-eight birds in the first competition. Last year there were in competitions, over three thousand birds. These were in different parts of the United Kingdom, the British Dominions and the United States. Canada held her first Dominion Contest at Charlottetown, P. E. Island, in 1918-19, with such success that this year, Dominion Contests began November 1st at six points, and an International Contest will be carried on at Ottawa.

The benefits of these competitions fall into two categories: First, to the owners of the competing pens of birds, and second, to the industry as a whole. The benefit to the contestant, which has been the impelling force that has sustained and increased the entries from year to year, is the advertising medium it provides for his stock. There may be valuable prizes offered in the competition, but these are small compared with the value that each and every competitor receives in the accurate statements furnished about the individual birds and their Record of Performance. This method of public and authoritative comparison gives the strains of our utility poultry their place and standing, better even than the show pen does for the breeder of exhibition strains.

The second benefit, however, is much broader and far more important to the poultry industry and the public as a whole. Laying competitions are leading the way in progress for all poultry-keepers, big and small; not only in regard to the actual material results secured from individuals or strains, but as an educational force, which has already revolutionized poultry keeping, and placed it on a sound basis.

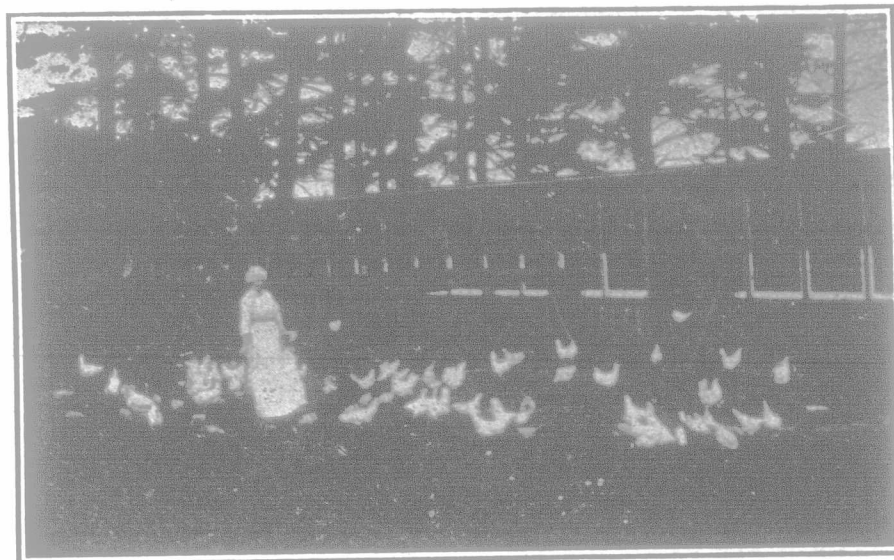
Contests set up a working standard. They provide incentive and stimulus to thousands. There is no Standard of Perfection yet attained in utility stock. Everyone knows that with better methods of feeding, housing and general management, the possibilities of our barnyard fowl throughout the country are so great that they can only be guessed at. The official Record of Performance will be a new ladder to enable breeders

to climb to new heights of production not deemed possible before.

To-day we are trying out systems of culling flocks. The official test, with its careful observations and trap-nests, is the only reliable answer to these and similar questions.

After having looked into the working of these competitions, here and in England, I would like to add a few words in addition to the benefits mentioned with regard to the dangers and abuses that are involved. The danger that is always present in competitions, is to work for mere number of eggs produced, disregarding the size, marketable qualities, and cost of production. The hen producing the second highest number of eggs at a contest last year was disqualified, and did not secure even third place. A pen owned by a very noted breeder at the International Egg Laying Contest at Dodnash Priory, Suffolk, England, was disqualified because his hens had averaged over 20 small eggs each during the contest. The pen laying the greatest number of eggs at the Dominion Contest at Charlottetown, did not secure any prize as a pen, owing to its average eggs being only 22½ ozs. in weight per dozen, while twelve other pens averaged 24 ozs. per dozen or over. The winning pen was 171 eggs short, but the average weight of its eggs was 25½ ozs. per dozen. One P. E. Island pen averaged 26oz. per dozen for the whole period.

Another danger to be avoided is the sacrificing of vigor, stamina and constitutional fitness. The substituting of spare birds for those that die during a contest is open to criticism, particularly when these birds continue the records of those that die. Many contests now do not allow any substitution. Some managements say that birds that do not have vitality to live the year out, are not worthy of winning. Contests should be conducted under conditions as nearly normal as possible. Conditions, whether of housing or feeding, should not be too favorable. The range of feeding stuffs should be limited to those generally obtainable by the ordinary poultry-keeper. These tests and trials should show what is possible under good commercial conditions. The contestants are entitled to generous prizes and all the other benefits,



Note This Well-lighted Poultry House and the Good Size Farm Flock.

as they give up all the eggs from ten of their best pullets for one year; but the conditions must be framed and the methods adopted that will benefit the whole industry, and through the consumers, benefit the whole nation.

J. A. CLARK, SUPERINTENDENT.

Dominion Exper. St'n., Charlottetown, P. E. I.

P. E. I. Egg Laying Contest.

Information sent to this office, from the Dominion Experimental Farm in Prince Edward Island, states that the first Dominion egg-laying contest closed at Charlottetown on September 30, this year. A Barred Plymouth Rock hen, owned by T. J. Adamson, Rouge-mont, Que., won the premier prize, laying 227 eggs in eleven months. The second best laying record was made by another Barred Rock hen from Dorchester, New Brunswick. This hen laid 212 eggs, winning out over a hen that laid 225 eggs because many of the latter were below standard requirements. A White Leghorn won third prize with 201 eggs, which, because they were so large and uniform, placed this hen above the hen laying 225. A Toronto pen in the heavy class gave the greatest revenue from sale of eggs over the cost of feed, laying during the eleven months 1,175 eggs, valued at \$45.26. The feed cost was \$24.14, leaving a profit over the cost of feed of \$21.12. The second prize-winning pen in this class laid 1,286 eggs, valued at \$44.81, and showing a profit over feed of \$20.70. In the light class a pen of White Leghorns laid 1,148 eggs at a profit of \$18.60 over feed, while the second prize-winning pen laid 1,047 eggs, at a profit over the cost of feed of \$15.80. This pen, by the way, completed the contest without any one of the hens losing a day through broodiness. The Toronto pen of Rhode Island Reds that gave the greatest revenue from sale of eggs over the cost of feed, in the heavy class, also contained the hen laying the most uniform eggs over 21 ounces per dozen in weight. This whole pen throughout the contest averaged 25½ ounces per dozen.

HORTICULTURE.

Protect Trees From Mice and Rabbits.

Every fruit grower knows from experience that serious loss among young trees is likely to be experienced as the result of each winter if some protection is not given from mice, rats, and other rodents. Clean cultivation will usually prevent depredations by mice, since it prevents them from finding any cover or shelter under which to live. Clean cultivation, however, will not prevent injury from rabbits to the same extent as in the case of mice. The elimination of dirty fence rows will be a protection against both. The New York Experiment Station, at Geneva, refers to protection against rabbits as follows: "The wire screen cylinder is the ideal protection against cottontail rabbits. It is made of galvanized iron screening of one-quarter inch mesh. The 24-inch width should be used, cutting it crosswise with tinners' shears into sections of necessary length. These sections, if rolled over a round piece of wood may be shaped into cylinders, which, when placed about trees, are securely held by their own tension, though it is well to allow the edges to lap an inch or two. This wire screening or wire cloth can be purchased in rolls of 100 linear feet. The wire-cloth cylinder is perfect protection against mice but is more expensive than mounding.

"It is not so easy to protect against the jack rabbit. With this pest, if the orchard is small, a rabbit-proof fence may be profitably put up. In most orchards, however, repellents offer the best protection. Among the many repellents recommended, undiluted lime-sulphur is far the best. A little salt increases the adhesive property of the mixture, but must be boiled into the wash. Apply with a whitewash brush late in the fall and, if necessary, once, twice or oftener during the winter."

Discussing this same subject, W. T. Macoun, Dominion Horticulturist, says as follows, with special reference to protection from mice, in a recent Experimental Farm Note:

"Thousands of trees are injured in Canada every year by mice, and in the newer districts a large number of rabbits also. All this could be prevented if the farmer or fruitgrower would use the information available and protect his trees from mice. Some years there is less injury than others, and this fact leads to carelessness, and when a bad year comes the trees are unprotected.

"While the depredations from mice and rabbits in winter vary from one year to another, depending on the scarcity or abundance of food, the number of mice which are in the vicinity, and the character of the winter, the injury is always greatest when the orchard

is in sod, and when there is rubbish lying about; hence the latter should be removed before the winter sets in. As mice may be expected in greater or less numbers every winter, young trees should be regularly protected against their ravages. Mice usually begin working on the ground under the snow, and when they come to a tree they will begin to gnaw it if it is not protected. A small mound of soil from eight to twelve inches in height raised about the base of the tree will often prevent their injuring the tree, and even snow tramped about the tree has been quite effective, but the cheapest and surest practice is to wrap the tree with ordinary building paper, the price of which is small. Tar paper is also effectual, but trees have been injured by using it, and it is well to guard against this when building paper will do as well. After the paper is wrapped around the tree and tied, a little earth should be put about the lower end to prevent the mice from beginning to work there, as, if they get a start, the paper will not stand in their way. It may be stated, however, that among several thousand young trees which have been wrapped with building paper for years at the Experimental Farm, Ottawa, there have been practically no instances where the mice have gnawed through the paper to get at the tree. The use of a wire protector, or one made of tin or galvanized iron, is economical in the end, as they are durable.

"There are a number of washes and poisons recommended for the protection of fruit trees and the destruction of the mice and rabbits, but none of these is very satisfactory, as if the mice or rabbits are numerous, the poison has not sufficient effect upon them to prevent injury altogether. The following method of poisoning has been found fairly successful for mice, but rabbits are very difficult to deal with.

"Make a mixture of one part, by weight, of arsenic with three parts of crummeal. Nail two pieces of board, each six feet long and six inches wide, together so as to make a trough. Invert this near the trees to be protected and place about a tablespoonful of the poison on a shingle, and put it near the middle of the run, renewing the poison as often as is necessary."