

vincing manner, the fact that there are no substitutes for dairy products.

The President of the National Creamery Butter Makers' Association urged the closest co-operation between all phases of the dairy industry. Every branch of the industry must support the campaign against the use of substitutes. One speaker referred to a publicity campaign in connection with the ice cream industry, bringing out the fact that \$11,000 expended in a campaign had the effect of increasing the sales of ice cream in the City of Chicago alone, by twenty-five to thirty per cent. It was also quite forcibly stated that the people of America are not using as much milk, cheese or butter as they should, and one delegate insisted that the nation could easily make milk constitute at least twenty-five per cent. of the human diet, instancing the fact that a case of leprosy has never been known where milk was abundantly used.

It was stated at the conference by Dean Russell, representing the United States Food Administration, that in January 1917, about 600,000 pounds of nut margarine were sold, while in January, 1918, sales increased to 9,600,000 pounds. With regard to oleo-margarine, the increase in the same period, while not so great, was still an increase from 41,500,000 pounds to about 70,000,000 pounds. Mr. Russell stated that Mr. Hoover has asked Italy, France and England to estimate the amount of condensed milk, cheese and butter that will be needed during the coming months. When these estimates are available the United States Food Administration will be in a position to recommend the amount of dairy products for consumption in the United States.

The importance of keeping dairy herds up to a high degree of efficiency was stressed at the conference, it being stated that in European countries the situation is pitiful. This is particularly true in France, where it is stated that families cannot get any milk unless there is a child to be fed. The people of England are reduced to four ounces of fat per week and death by starvation in many of the European countries was said to be appalling. It was believed by the conference that as soon as the war is over European countries will be flocking to America, meaning both Canada and the United States, to secure foundation stock with which to replenish generally their depleted herds. This prospect, therefore, points the way to the use of the very best sires and the development of cow-testing associations, calf clubs, and every other business agency that will assist in putting the dairy industry upon the best possible basis.

POULTRY.

See that the flock gets an abundance of free range, shade and green feed.

The time to wean chicks, whether from hen or brooder, depends upon both breed and season.

Crows, skunks, weasels, etc., are waiting for the young chicks on the range. Traps and a trusty shotgun are most reliable.

Don't forget to watch the health of the young chickens. Contagious white diarrhoea is undoubtedly the greatest scourge of the poultryman. Sour milk for a few days after hatching assists in destroying the bacteria.

New Export Egg Regulations.

For some time now there has been some agitation relative to the grading and weight of eggs. Recently, the former has been given considerable attention by the Department of Agriculture, at Ottawa, while the Department of Trade and Commerce had under consideration regulations relative to the weight of eggs. The question is of importance at this time because it is closely bound up with the possibilities of our export trade after the war. The two pieces of legislation referred to above were not exactly in agreement, and as a result, the recent enactment, the provisions of which are herewith given and have already gone into effect, was made upon the recommendation of the Minister of Agriculture.

The regulations are made effective by virtue of subsection (c) of Section 9 of "The Live Stock and Live Stock Products Act, 1917". As approved by the Governor-General in Council, the regulations were to become effective May 1, so far as they affect inter-provincial trade, but owing to the unpreparedness of the trade in some sections of the Western Provinces, and in order to avoid congestion and subsequent loss, the enforcement was postponed until May 28.

It will readily be seen that the aim of these regulations is to secure a greater degree of quality in the eggs exported, and to force dealers to buy on a basis of paying for quality only, while, at the same time, inter-provincial trade in carlots of eggs is stabilized by the protection afforded the shipper in this trade. We understand that the bulk of this legislation was discussed at the last annual meeting of the Canadian Produce Dealers' Association. It will be noticed that trade within the provinces is not affected. The following are the regulations:

1. Canadian eggs for export out of Canada and eggs for domestic consumption intended for shipment from one province to another, but not including eggs intended for incubation, shall be classified and graded as follows:

CLASS (1).—Fresh eggs which have not been held under refrigeration at a temperature of 40 degrees or

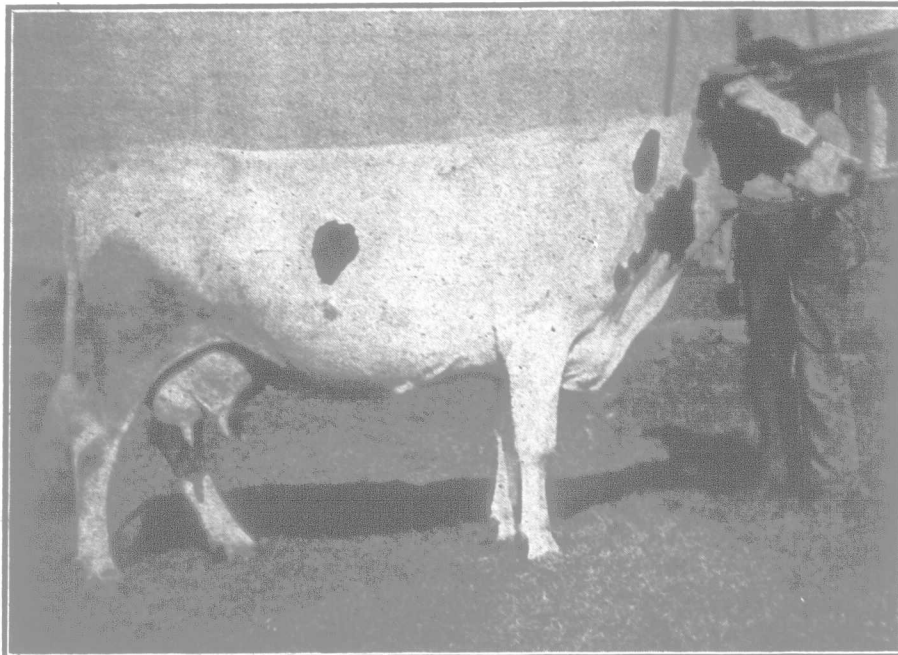
less except when in transit or subjected to artificial preservation.

Grade (a) Specials.—Eggs of uniform size, weighing 25 ozs. to the dozen or over, or 47 lbs. net to the 30 dozen case; clean and free from stain, strong and sound in shell; air cell small, not over three-sixteenths of an inch in depth; white of egg to be firm and clear and yolk dimly visible.

Grade (b) Extras.—Eggs of good size, weighing at least 24 ozs. to the dozen or 45 lbs. net to the 30-dozen case; clean; sound in shell; air cell less than $\frac{3}{8}$ inch in depth; white of egg to be firm and yolk slightly visible; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

Sub-grade (1) Pullet Extras.—Eggs which have the quality of extras but which fall short in weight shall be known as pullet extras, providing they weigh at least 20 ozs. to the dozen or 37½ lbs. net to the 30-dozen case.

Grade (c) No. 1's or Firsts.—Eggs weighing at least 23 ozs. to the dozen or 43 lbs. net to the 30-dozen case; reasonably clean; sound in shell; air cell less than $\frac{1}{2}$ inch in depth; white of egg to be firm; yolk may be distinctly visible but mobile; air cell stationary; maxi-



Manor P. H. Flower.

Five-year-old cow with a record of 603.4 pounds milk and 30.59 pounds butter in 7 days. Owned by Gordon S. Gooderham, Manor Farm, Clarkson.

mum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

Grade (d) No. 2's or Seconds.—Eggs sound in shell; may contain weak watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

CLASS (2).—Storage eggs which have been "held" under artificial refrigeration at a temperature of 40 degrees or less.

CLASS (2a).—Preserved eggs which have been subjected to any process, liquid or otherwise, intended to preserve their quality.

Grade (a).—Extra eggs of good size, weighing at least 24 ozs. to the dozen, or 45 lbs. net to the 30-dozen case; clean; sound in shell; air cell not less than $\frac{3}{8}$ inch in depth; white of egg to be firm and yolk slightly visible; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

Grade (b) Extra Firsts.—Eggs weighing at least 23½ ozs. to the dozen, or 44 lbs. net to the 30-dozen case; clean; sound in shell; air cell less than $\frac{3}{8}$ inch in depth; white of egg to be firm; yolk may be moderately visible but mobile; air cell stationary; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

Grade (c) No. 1's or Firsts.—Eggs weighing at least 23 ozs. to the dozen, or 43 lbs. net to the 30-dozen case; reasonably clean; sound in shell; air cell less than $\frac{1}{2}$ inch in depth; white of egg to be firm; yolk may be distinctly visible but mobile; air cell stationary; maximum allowance at time of inspection not to exceed 2 per cent. variation from the grade stated.

Grade (d) No. 2's or Seconds.—Eggs sound in shell, may contain weak watery eggs and eggs with heavy yolks, and all other eggs sound in shell and fit for food.

CLASS (3) **Cracked and Dirty.**—Eggs, shells which have been checked or broken, smeared, soiled, or damaged in shell, but fit for food.

2. Every case containing Canadian eggs intended for export out of Canada shall be marked on both ends in a legible hand and indelible manner, with the class and grade of eggs contained therein, and the words "Canadian Eggs", and every case containing eggs that are to be shipped from one province to any other province in shipments of 100 cases or more, shall be marked on both ends with the class and grade of the eggs contained therein, and with the name of the country of origin when other than domestic product. The Minister may from time to time prescribe the form and the size of the letters that are to be used in such markings. Such marks may be accompanied by other trade designations or brands, providing such designations or brands are not, in the opinion of the Minister, inconsistent with or marked more conspicuously than the marks prescribed in these regulations.

3.—Canadian eggs for export out of Canada shall be tightly packed in Canadian standard cases in new fillers and flats, with kiln-dried excelsior or corrugated cushions at top and bottom, or one-third fillers on bottom with flats over top and under bottom fillers.

4.—Canadian standard cases shall be made to contain thirty dozen eggs. They shall be made of clean, dry and odorless wood. The ends and centre partition shall be not less than five-eighths of an inch thick, the sides, top and bottom not less than three-eighths of an inch thick.

5.—Cases containing Canadian eggs in lots of twenty-five cases or more intended for export out of Canada, and eggs intended for shipment from one province to another province in shipments of 100 cases or more, shall not be shipped until they have been inspected and marked by an inspector.

6.—The mark of approval to be placed on each case, hereinafter called the "Government Mark", shall include the Maple Leaf and the words "Canadian Eggs," and the Inspector's number, the device to be in such form as the Minister may approve.

7. Before the Government mark is placed upon any case, the Inspector shall draw samples of at least five per cent. of the cases to be marked and shall examine at least one-half of the eggs in each case. The Inspector shall satisfy himself that the samples taken are representative and shall take any further samples and make any further examination that he deems necessary.

8.—No cases containing eggs shall be marked with the Government mark unless the warehouse or rooms in which the eggs are held are in a clean and sanitary condition, and further, no cases shall be marked unless suitable accommodation is provided for inspectors to make the necessary examination, such accommodation to include a dark room, facilities for candling, and such fittings as may be required to insure a proper examination.

9.—No person other than a duly appointed Inspector shall apply any Government mark to any cases containing eggs.

10.—After the contents of any case bearing the Government mark have been removed, such mark shall be obliterated. This shall be done by the person or persons removing the eggs from the case.

11.—Collectors of Customs throughout Canada shall not allow any Canadian eggs to be shipped for export out of Canada that are not marked in accordance with these regulations.

HORTICULTURE.

Controlling the Codling Moth.

Every fruit grower is entirely familiar with the codling moth and the enormous amount of damage which this pest creates yearly. Every farmer too, is familiar with the fact that wormy apples occur yearly and that very often whole crops may be seriously lowered in grade because of worminess. Not all cases of worminess may be placed against the credit of the codling moth and its larvæ the codling worm, but it is safe to say that the codling moth larvæ is by far the commonest of all insects producing worminess. This insect pest is therefore, especially in districts where San José scale is not abundant, the most troublesome and injurious of all insects attacking the apple and pear.

It is for this reason principally, that the third spray for apples and pears is very important. In fact, so closely is this spray allied with the control of the codling moth, that it is commonly spoken of as the "codling moth" spray. It is also true that this spray is very effective in the control of other biting insects and apple scab, although the second or "pink" spray is commonly called the scab spray since this important fungous disease can probably be most effectively prevented just as the blossom buds are shading pink. This second spray is sometimes omitted, although rarely by the man who pays careful attention to his orchard and endeavors to produce the cleanest possible fruit, but even at such a serious time as the present when labor conditions are most acute, those who depend on the apple orchard for a cash crop strain every effort to apply the third spray.

When and How to Spray.

This spray is applied just after the blossoms have fallen, or, perhaps, when about 90 per cent. have fallen, since it is at this time that the calyx of the young apple (the end opposite the stem) remains open for a few days and affords an opportunity for the spray material and especially the poison, to enter the calyx cavity and lodge there in readiness for the hungry worms or

larvæ, which are apple.

The important time cannot be of this is the best time upon study of the history has shown cocoons soon after begin to lay eggs the twigs and y hatch and the y so as to get some

Here we come in the control of by careful watch per cent. of their young apples through the best way to number is to way the apple and, inside at one place to be put without important to m cavity of the yo this cavity closes after the bloom h

To do this an poison enters the or pressure is nec many owners of men seem to thin the spray on the may be dripping Getting the spray difference between codling larvæ, if controlling 40 or of the necessity power sprayers d sprayers or spray hand pumps. T power machines pounds pressure c in a given time. men to maintain day in and day spray and an out factory work can more difficult th latter it is necess blossom clusters a the spray really en

An the sprayer, will a The angle nozzle a more efficient wor sary where the tr angle nozzles are r from the end of th pulping of the r be properly distri possible without a and spraying do since many of th on their stems at tower gives the sp in company with angle of about 45 to reach every t every side of the

A word about its strength. S terminated by its compared with the The specific gravi called an hydro thermometer in a so that when it is reading at the surf gravity of the liqu As the leaves of the lime and su cause of a danger ing the same spra the dormant spray about one-quarter of lime sulphur 1.008 instead of 1 water added to or will give the prop sulphur is homem meter is necessary.

The lime sulph to kill the larvæ, control apple and as a poison for th about two pounds or one pound in most common lime sulphur to g No more is necessa expensive, no mor effective work if th Fruit growers codling moth if and chickadees al the orchard durin any trouble will b the codling moth a help in controlling will practically wip

In order to mo