

"papular stage." This is followed by the "vesicular stage" in which a quantity of serum forms extending from the centre, rendering the parts bluish in color, though still surrounded by a congested ring. The central parts of the vesicles, however, do not become elevated, but generally remain slightly compressed. About the eighth or tenth day these vesicles attain their maximum development. Then follows the "pustular stage" which lasts two or three days, and then the contents of the pustule, if not liberated by rupture or lancing, dries up and a peculiar scab remains for a variable length of time.

If extreme soreness be present the milk should be drawn by the use of a teat syphon, but if not too sore milking by hand should be continued. If scabs form on the ends of the teasts, they must be removed to allow milking, but when in other parts they should not be forcibly removed. The milk is not considered fit for consumption. The person who attends to diseased cows should not touch the udders of healthy ones, except after thoroughly disinfecting his hands. As the virus is not volatile, isolation is not absolutely necessary, but is advisable. The application of an antiseptic ointment should be made three times daily. An ointment made of four drams boracic ointment, twenty drops carbolic acid, and two ounces vaseline gives good results, and should be regularly applied until all scales have been removed, and no new areas are appearing. In rare cases, inflammation of the udder may appear as a complication, in which case the usual treatment for mastitis should be given.

WHIP.

Educational Butter Scoring Contest

Reports of scorings for May and June in the Dominion Educational Butter-scoring Contest being conducted by the Dairy and Cold Storage Branch, Department of Agriculture, Ottawa, are now at hand. Only entries from four creameries in each province are accepted, we understand, and each province has provided its full quota, with the exception of British Columbia, which has three. The following table gives the score for each creamery for May and June:

Name of Creamery	May Score	June Score
British Columbia.		
Salt Spring Island.....	93.5	96.8
Kelowna.....	96.3	97.1
P. Burns & Co.....	92.6	93.0
Alberta.		
The Central Creameries Ltd.....	96.4	—
The Morkeberg Creamery Co.	97.5	98.0
The Edmonton City Dairy Ltd....	96.6	93.8
The Viking Co-operative Creamery.....	—	94.5
Saskatchewan.		
Tantallon.....	94.0	98.5
Melville.....	—	94.2
Prince Albert.....	96.2	—
Humboldt.....	96.4	—
Manitoba.		
Shoal Lake.....	97.0	—
Belmont.....	96.5	—
Crescent Creamery.....	96.6	—
The T. Eaton Co.....	95.0	—
Ontario.		
Lindsay.....	90.5	91.4
Bowes Co.....	—	93.9
Guelph.....	—	92.9
Winchelsea.....	—	94.6
Quebec.		
St. Roch.....	93.2	95.8
St. Vallier.....	—	95.7
Gentilly.....	95.5	98.5
St. Hyacinthe.....	96.5	96.0
New Brunswick.		
Sussex Cheese & Butter Co.....	93.2	—
Farmers' Co-operative Creamery.....	94.8	95.9
Madawaska.....	90.7	96.3
Victoria Mills.....	90.5	96.8
Nova Scotia.		
Pictou Co. Dairy Co.....	—	96.2
La Societe d'Industrie.....	—	94.5
Scotburn.....	94.7	98.0
Intercolonial Creamery.....	—	92.0
Prince Edward Island.		
Dunstaffnage.....	—	96.5
Crapaud.....	—	94.0
North Tryon.....	—	96.0
Central Bedouque.....	—	94.4

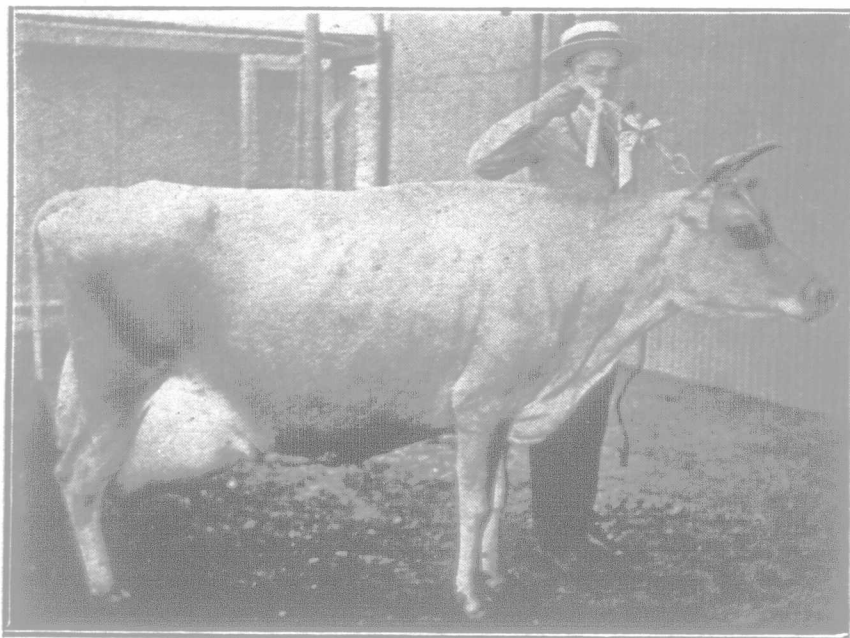
It will be noticed that one of the Saskatchewan creameries scored 98.5 points in June, which is the highest score recorded for either month. The churning record for this creamery shows the cream to have been clean, with 40 per cent. butter-fat and .25 per cent. acid in the cream before pasteurizing. It required forty minutes to raise the temperature during pasteurization to 180 degrees, where it was held for ten minutes. One hour and ten minutes was required to cool the cream to 50 degrees, and churning was begun ten hours after the maximum temperature had been reached. At the time of churning the temperature of the cream was 48 degrees, and it showed .25 per cent. of acid. Churning required thirty minutes. The temperature of the wash water was 50 and 48 degrees, and one-half ounce of salt per pound of butter was used. The butter

granules were the size of corn when the washing was finished.

The lowest score for June was 91.4, and it would be interesting to compare the churning record of this sample with that of the one just given. Sour cream was used, testing 28 per cent. butter-fat, with .65 per cent. of acid in the cream before pasteurizing and .30 per cent. of acid in the cream after pasteurizing. The maximum temperature reached was 170 degrees, and raising it to this temperature required twenty minutes, after which it was held there for ten minutes. One hour was required to reduce the cream to a temperature of 42 degrees, and four hours from the time of reaching its maximum temperature the cream was churned. At this time it had an acidity of .30 per cent., the temperature of the cream being 48 degrees. Forty minutes were required for churning, and the butter was washed with water at a temperature of 46 degrees. Four per cent. of salt was used.

Annual Meeting of Brockville Ayrshire Breeders.

The annual meeting of the Brockville District Ayrshire Breeders' Club was held at Athens, Ontario, on July 3. Lunch was served in the grove on the farm of A. Henderson, after which W. J. Bell, Principal of the Kemptville Agricultural School, addressed those present. Mr. Bell gave some figures which went to show that there had been a considerable decrease in the cheese output in 1918, which he thought was probably accounted for by the fact that more milk had gone to condenseries, creameries and to the city milk trade. Referring to the per cent. of fat in milk, Mr. Bell stated that a large number of samples were tested last year, and about half were below 3 per cent. of butter-fat. This is a great detriment to the making of high-quality cheese, and he strongly advised the sale of milk on a quality basis. Record work he thought should be encouraged,



Wonder Mary.

Sold by B. H. Bull & Son, at the Cooper sale, for \$3,300.

since this, along with the show-ring, is a splendid method of advertising. His advice also to breeders was to be more careful in the selection of sires, and to feed the calves well so as to grow large cows.

W. F. Stephen, Huntingdon, Que., said that agriculture has for its basis the live-stock industry, and that dairying will be one of the chief factors which will contribute to the payment of our war debt from the products of the soil. He also felt confident that there will be a good market for dairy products for many years. Emphasizing the value of Canadian Record of Performance work, Mr. Stephen showed that Canadian breeders have a great advantage in yearly test work, in that it costs them little, while in the United States and other countries it costs breeders all the way from forty to sixty dollars per cow to carry on this work. Emphasis was placed upon the necessity for ridding Canadian dairy herds of tuberculosis by the periodical application of tuberculin tests.

With twelve young men competing, a judging competition with Ayrshire cows resulted as follows: 1, A. Gooding; 2, Alva Henderson; 3, Warren Henderson; 4, Thos. Horsefield.

Now that the Government is in a fair way to become interested in the matter of standardizing farm machinery and repair parts, through the action of the Committee on Agriculture and Colonization of the House of Commons, it behooves farmers, all of whom use machinery, to look alive and see that the movement takes on a practical and useful turn. Farmer's clubs can put some punch into their efforts if they approach their local members and supply them with practical and pointed information as to the necessity for standardization.

HORTICULTURE.

Fruit Crops and Prospects.

The July fruit and vegetable crop report shows very variable conditions as respects the apple and tender fruit crops throughout the country. Conditions are somewhat changed since the last report in June in the direction of less promising prospects for both apples and some of the tender fruits. The apple crop of Nova Scotia promises to be in the neighborhood of 900,000 barrels, and it is believed that there will be sufficient coopeage stock available to handle this large crop. Generally speaking, the crop is heaviest in well-cared-for orchards. Baldwin, King, Gano, Ben Davis and early varieties show the best prospects, with Gravenstein, Stark and Russet fair, while Blenheim, Fallawater, Nonpareil, Greening and Ribston are light. Spraying has been very thorough and scab is not prevalent on the fruit to any extent. In New Brunswick weather conditions have been favorable and fruit has set well. Duchess, Bishop Pippin, Golden Russet, Ben Davis, Gano and Dudley are full crop; Wealthy and McIntosh sixty per cent.; Wolfe River forty per cent., and Alexander light.

In Quebec, conditions are very variable, the effects of winter killing in 1917-18 being very noticeable. It is reported from the St. Helair and Rougemont district that over 200 acres of full-bearing Fameuse orchards have died since the winter of 1917-18. From Chateauguay comes the report that McIntosh, Fameuse and Wealthy have fallen very badly. Generally speaking, St. Lawrence, Alexander, McIntosh and Russet will show the best crop.

In Ontario, Spy appears to show the most promising prospects, with scab developing on all varieties very rapidly, particularly along the North shore of Lake Ontario, where the largest of the commercial apple orchards are situated. Generally speaking, in this district there will be an increase in crop of from ten to twenty-five per cent. over 1918. Prince Edward County shows a rather disappointing crop; perhaps about one-third of normal, with many trees still dying from the effect of winter injury. The St. Lawrence Valley promises a fair crop, with no serious development of scab as yet. In British Columbia, there are favorable reports from the Okanagan Valley, Vancouver Island and the Kootenay Valley, but the crop on the lower mainland is light. The heaviest set seems to be with King, Spy, Wagener, Jonathan, Ontario and Wealthy.

Summing up the prospects for the fruit crop in Ontario, P. W. Hodgetts, Director of the Fruit Branch, Department of Agriculture, Toronto, says: "Early reports from the best sources gave most promising prospects for the fruit crops in this Province. The mild winter was favorable and blossoms of all kinds were abundant with the exception of a few apple districts. But fruit growers have learned that there is much truth in the old proverb, 'Don't count your chickens till they are hatched.' Abundance of bloom does not always mean a heavy crop. Fruit growing is a speculative industry and good profits in some crops are necessary to even up heavy losses in others. The weather and the pests all have to be considered, and while the latter may sometimes be difficult to control, the other is beyond us entirely. When the two combine, as in the case of the curl leaf this year, it means the difference between a full crop of peaches as was at first promised to the 20 per cent. to 40 per cent. crop now estimated by the growers.

"The apple prospects are variable according to districts with the best reports coming from the Northern Spy, which seems to be the best bearer in all parts for this season. Greenings in many sections are light, as are Russets. The average over the Province would appear to warrant a crop about equal to 1918, with, of course, a somewhat different disposition as to districts and varieties. The only very bad report is that from the Newcastle District where the drought has apparently affected both leaves and fruit.

"The peach crop as already mentioned has been seriously affected by curl leaf. Owing to continued rains at spraying time, it was difficult to get on the dormant spray early. The heavy set of fruit was badly thinned by the setback to the foliage, many of the trees being defoliated. Cherries and plums, both reported early as showing heavy bloom, were affected by the wet weather which prevented proper pollination, and the crop in many of the Niagara District orchards will be light. Outside points show better prospects for these fruits. Pears are generally somewhat heavier though the winter 1917-18 has narrowed the area of successful pear orcharding considerably. With regard to tender fruits, the report of the Dominion Fruit Commissioner says in part, as follows:

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