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are his worst enemies. The average maker will not take the trouble to study the tactics of the enemy, hence many go down to defeat. The unseen yeasts are by far the worst enemies of the dairy industry, and we know very little about them.

The report says: "During the past year, 450 samples of milk, cream, butter, cheese and whey were examined for these yeasts. These samples came from all parts of the state, representing the Swiss and cheddar cheese, as well as the butter. These yeasts appear to be most abundant in whey, as nearly one-half of the samples in a Swiss-cheese section containing them were from whey. Heating to 170° F. destroys all yeast cells present; hence this would seem to be a practicable remedy to get rid of yeasty flavors. This heating may be done with the exhaust steam from the engine of the factory, at practically no expense. In a brick-cheese district, 59 out of 67 samples of patrons' milk contained the yeast germs. Samples of whey from 18 cheddar factories, in various parts of the state, all demonstrated the presence of lactose-fermenting yeast. The number of yeasts present in the butter was very small."

The writer goes on to say that the organisms are found wherever dirt accumulates and is protected from drying. Referring to the fact that a Canadian bacteriologist found a yeast of this type on the leaves of maples, he remarks: "This was undoubtedly an accident, the organism having been bo ne there in the dust."

In the cheddar industry, while the whey may contain considerable numbers of this form of yeast, yet, in competition with the lactic-acid organisms, that develop so luxuriantly in this habitat, they are not able to hold their own. The foregoing probably explains why the "bitter flavor" is worst when the whey tank is cleaned. This is no argument for not cleaning the whey tank; on the contrary, it shows that the whey tank was not properly cleaned, else the yeast cells had been dest oyed.

H. H. D.

The potato "bugs" are probably more numerous and persistent in Manitoba this year than they have ever been in any district of the Dominion. Hard work with the old bulbs and Paris Green with the young slugs is the only remedy and the salvation of the crop.

Horticulture and Forestry

Suggestions for Storing Potatoes.

We have had several suggestions upon the storing of potatoes in response to our request in a recent number for information for one of our readers on the keeping over winter of 10,000 bushels. T. W. K., Emerson, Man., says:

"Has your correspondent not made a mistake and meant 1,000 bushels? 10,000 are more potatoes than any person has raised in one crop in Manitoba? Why, it would mean about sixty acres and would swamp the Winnipeg market. I have no experience of wintering such quantity. About 150 to 200 bushels is about my size, and I should think that any person raising potatoes on such a scale would put up a building purposely to store them in, but the cash value would be about from \$4,000 to \$5,000, too much to run chances of getting touched with frost, and but a very little frost does the trick thoroughly. In wintering potatoes outside the cellar I have a root-house dugout sixteen feet by eight feet and six feet deep with a pole roof and about a foot and a half of chaff and fire fanged manure on top with a double door and second front wall one foot from the other filled in with dry chaff, and this works all right. About the end of November I close up the entrance with a load of straw manure and do not open till March when most severe weather is past."

Dr. S. J. Thompson of St. Charles, Man., advises as follows: "Dig a pit about six feet deep and eight feet wide in good dry soil; fill up to about the level of the ground with potatoes; then lay over with poles; cover with straw, and a layer of earth six to ten inches deep. As the weather gets colder put on another coat of straw and earth and along about the first of the year cover with a good coat of horse manure, letting it extend well over the sides of the pit. Watch closely and if the snow does not lie on the pit put on more manure, or if the weather keeps warm watch that the potatoes do not become hot. In some cases it is necessary to make air holes with wooden boxes or stove pipes and fill them

with straw. Storing such an amount as our correspondent mentions is not advised, however, especially where labor is difficult to get.

A British Columbia correspondent, Mrs. F. Martin, suggests the following method in climates similar to that in the coast province:

"Pit them out of doors in long narrow pits, say six to seven feet at the bottom of the pit. Cover with straw and then earth. The amount of earth required depends upon the amount of cold you get. I have pitted potatoes in the province and the thermometer has been below zero for weeks. I usually had a good covering of straw and about two feet of earth. I pitted in the field and always endeavored to have the potatoes dry before pitting. Every five or six feet I placed a box made of inch lumber and eight inches square and perforated with auger holes. These were placed on the ground upright and the potatoes dumped round them. I would open pits in the spring and the potatoes came out as fresh as if just dug. In very cold weather I would cover the ventilating boxes, or if snow or rain were falling."

Judging Competition at Edmonton.

The executive of the Provincial Exhibition held at Edmonton two weeks ago conducted a live stock judging competition for farmers and farmers' sons, with the following results:

Heavy horses—Stephen Swift (medal); light horses —Stephen Swift; beef cattle—1. G. McGill, Lacombe; 2. D. E. Timmey, Riviere Qui Barré; 3. A. J. Ottewell, Clover Bar; bacon hogs—1. D. E. Timmey; 2. T. Daly, Clover Bar; 3. A. F. M. Gill, Lacombe; mutton sheep—1. D. E. Timmey; 2. T. Daly; 3. A. F. McGill.

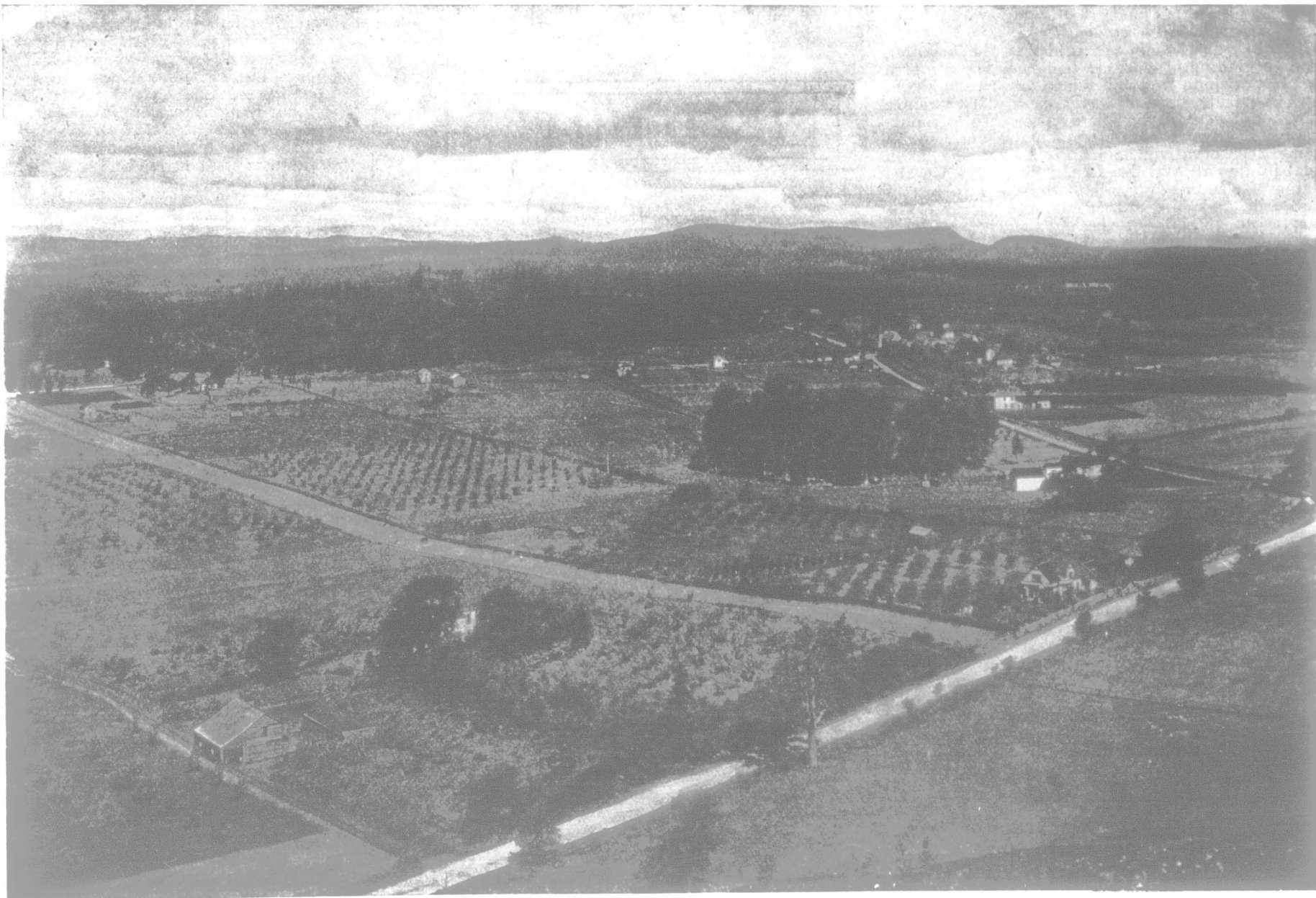
Medal, as a sweepstakes prize to the farmer's son making best score in cattle and hogs, A. J. Ottewell, Clover Bar.

MILKING CONTEST.

Cowtest—1. F. Toane, 22½ lbs. milk, 3.3 per cent. butter-fat; 2. J. McDonald, 16½ lbs. milk, 3.5 per cent. butter-fat; 3. F. Toane, 15½ lbs. milk, 3.4 per cent. butter-fat.

Cleanest and fastest milker—1. F. Toane; 2. J. Rand.

Many of the forest trees in the Red River Valley are suffering from the visitation of myriads of lice. So thick are the pests on many trees that the leaves are covered with the honeydew which they exude, and the ground beneath is sticky with the substance.



YOUNG FRUIT FARMS NEAR VICTORIA, B.C.