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MARCH 2, 1911

THE FARMER'S ADVOCATE.

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cows when out at pasture has been got over by the introduction of a cart fitted with a benzine motor, air pump, vacuum and piping, easily drawn by a single horse, and on which there is also place for a number of full milk cans.

Examinations of the quality of the milk drawn by the machine point to the fact that the milk is not only purer than the milk from the same cow produced by hand milking, but that it may safely be said that a perfectly pure milk is obtained.

A new milking machine is at present being experimented upon under the control of the State Experimental Laboratory authorities. The advantage claimed for this machine is that it more closely resembles milking by hand, as it works by pressure only, not as in the case usually, by pressure and suction. It is further claimed for this machine that it draws all the milk, and produces the same amount as milking by hand.

Ayrshire Sweepstakes Prizes.

I notice that an error appeared in the report of the minutes of the Canadian Ayrshire Breeders' meeting, referring to special prizes voted for sweepstakes at the winter fairs. It should read as follows: "That \$75 for an Ayrshire, \$75 for a three-year-old heifer, and \$75 for a two-year-old heifer, be given, as champion at Guelph, Amherst and Ottawa Winter Fairs, December, 1911, and January, 1912, provided the highest scoring at three fairs be made by pure-bred Ayrshires in the dairy test, all Ayrshires competing to be recorded in the Canadian Ayrshire Herdbook."

W. F. STEPHEN, Sec.-Treas.

POULTRY.

Poultry Attendance—Colony Housing.

I have been much interested in the details of poultry performances given by various of your readers. I wonder if you, or any of your readers:

1. Could give me an idea as to how many head of poultry one man, giving his whole time to the work, could handle conveniently?

2. Also, in the movable colony system, how many fowls is it advisable to keep in one house? Do the chickens always return to their own particular houses, and not get mixed up? H. M.

Ans.—1. The number of poultry which one man can look after will depend, first, upon the man, and, second, upon the management. If, however, the poultry is kept in well-ventilated houses that are easily cleaned, with drop boards, a good man ought to attend to at least one thousand hens. It may be that he could also have a number of these houses equipped with trap nests. It would be difficult, however, to attend to the trap nesting if it was necessary to look after incubators or chicks, but a good man should be able to look after 1,000 hens without trap nests, and ought to run incubators and brooders with very little help, possibly a little with the brooding. There are some men, however, who think they are killed if they are expected to look after even 100 hens. Under our system of feeding here, using no wet mashers and feeding but once or twice a day grain in a litter, and the doing without drop boards, the feed and care, over and above the gathering of the eggs, is very light during the winter months. The colony houses are drawn together, and it is nearly as easy to reach the flock, though divided into small houses, as it would be if they were in a long house. In the summer-time these houses are spread out into the field, and the hens are fed practically once a month, by means of the hopper system.

2. The houses we use are 8' x 12', and during the winter months hold 25 hens each, and in the summer we double up and put from 30 to 40 hens in a house. There is very little trouble in having the chickens or hens keeping to their own houses. When a flock of hens are put out into the field, we either keep them in their house for a few days, or a temporary yard is made until they know their home. As soon as they can locate their home they will come back to it at night. During the day the flocks do get mixed, if the houses are placed closely enough together, but as we do not put more than the one breed in the one field, it makes very little difference, and by the time the land is ready for our houses to be drawn out, the breeding season is practically over with us.

F. C. ELFORD, Mgr., Poultry Dept. Macdonald College, Que.

A remarkable ninety-days' egg record, considering the size of the flock, is published by S. G. Hanson, of the Nanaimo District, in British Columbia. Four hundred and two Single-comb, White Leghorn pullets, bred for egg production, were hatched in 1909, two hundred of them being hatched in June, the last hatch coming out on the 26th of that month. According to the daily egg record, as published, these pullets commenced the New Year (1910), with 192 eggs on January 1st, increasing to 272 on January 31st, the total for the month being 7,616 eggs. For February

the total production was 7,310, and for March 8,606. The total for 90 days was 23,532 eggs, or an average of 58.5 per bird.

Next!

25 Letters a Day.

I have received an average of 25 letters per day since the 4th of February, asking for copies of the "Annual," which you kindly mentioned for me in issue of Feb. 2nd, as being issued by Turkey and Waterfowl Club. This has completely exhausted the 300 copies we had printed for distribution, and all who are sending now will be doomed to disappointment. I regret this very much, but I had no idea your circulation was so large, nor that so many people would be wanting information on raising turkeys, geese and ducks. The Club will probably repeat this custom of issuing an Annual next season; and if they do, all who write now will receive a copy, as I am keeping all the letters. I will send an advertisement of eggs for hatching in a few days, as your paper will surely bring results.

W. J. BELL,

Angus, Ont.

Secretary.

APIARY.

O.A.C. Short Course in Apiculture.

A short course in Apiculture is to be given at the Ontario Agricultural College, commencing May 1st, 1911. This short course is intended specially for students and ex-students who have taken the regular apiculture lectures and wish some more advanced, practical and scientific work to put them in the way of becoming trained apiary instructors. It is also open to beekeepers who have gained their elementary knowledge in a more practical way.

All Inspectors of Apiaries and other beekeepers interested in the foul-brood situation are invited to attend the whole week's course, but those who are unable to do so should make it a point to attend the Thursday conference, at least. Important subjects will be discussed.

Special attention will be given to diseases of bees, and their treatment. The practical apiary work will be conducted in the College Apiary and Apiculture Laboratory. Neighboring apiaries will also be visited, and different systems of management studied. Real cases of foul brood will be examined, and members of the class given a drill on the symptoms and treatment of this disease.

The speakers will include Dr. E. F. Phillips, Ph. D., in charge of Apiculture, Bureau of Entomology, Department of Agriculture, Washington, D. C.; and Morley Pettit, Provincial Apiarist, who holds a similar position in Ontario to Dr. Phillips in the United States; and various members of the teaching staff of the Ontario Agricultural College.

Co-operative Experiment in Control of Swarming.

There are three great problems in bee-management in this country, viz.: Brood diseases, wintering, and swarm control. The swarming problem comes home to every beekeeper. If he cannot control this instinct, he is likely either to lose swarms or to lose time attending to them when he is specially busy with other important work.

When the Apiculture Department was organized at the Ontario Agricultural College for instruction and experimental work, it was decided that the first experiment would be one for control of swarming. Applications for this experiment were received from over 300 beekeepers, almost every Ontario county and most of the other Provinces being represented.

For the experimental group, an even number of colonies is chosen, and the group divided into two equal, uniform lots, styled Lot A and Lot B. Lot B is to be managed as the experimenter has been used to doing. Lot A is managed according to instructions.

Reports on the experiment were received from 62 beekeepers; full reports from 25. The average number of colonies used by these latter in experimental work was 11.7, divided according to instructions into Lots A and B, averaging 5.8 each.

Of the colonies in Lot A, 18 per cent. cast first swarms. In Lot B, 38 per cent. cast first swarms. The average return in honey from Lot A was 82 pounds per colony, as against 75.3

pounds in Lot B. Ten of the experimenters said that the colonies in Lot A were in better shape for wintering than Lot B; thirteen could see no difference. On the whole, the experiment has been a marked success. A full report of this experiment will appear in the annual report of the Experimental Union for 1910.

The plan for 1911 is to send out the same experiment to those desiring it in the spring, and also experiment No. 2, which will be for the prevention of natural swarming in the production of comb honey. If interested, write for information to Morley Pettit, O. A. C., Guelph, Ont.

GARDEN & ORCHARD.

Prosperity Follows Apple-growing

Twenty-seven years ago, S. B. Chute, of South Berwick, King's Co., Nova Scotia, when so many young men were rushing away in quest of fortune, decided to try his at home. His experience illustrates admirably the opportunities of fruit-growing in Eastern Canada. He had no capital, but purchased on mortgage, to the full value, for \$1,400 a block of land that yielded from twenty to fifty barrels of apples per year, spending later \$2,500 for more land. On a low estimate, the neighbors value the property to-day at \$30,000, practically free of debt, the outcome or orcharding. Small fruits were raised to procure money to grow the apple trees. The yield from his orchards in 1904 was 600 barrels; 1905, 1,000 barrels; 1906, 1,000 barrels; 1907, 2,000 barrels; 1908, 1,500 barrels; 1909, 4,000 barrels, said by the Middleton Outlook to be the largest crop ever grown by one Maritime farmer. Mr. Chute, as might be expected, keeps careful track of what he is doing. He has a one acre Stark and Ben Davis orchard, 15 years planted, that last year produced 250 barrels, selling for \$500; another five-acre block, 11 years old, yielded in 1910, 500 barrels, selling for \$1,500. In 1909 the yield was 175 barrels, selling for \$437; and, in 1908, 250 barrels realized \$625. Last year's crop, Mr. Chute figures, practically paid for the five acres and all he had spent upon its orchard. So the small fruit grown was so much additional return. Here is a statement of his outlay:

5 acres land, at \$100 per acre.....	\$500.00
Plowing and harrowing 11 years, at \$30 per year.....	330.00
700 trees, at 20 cents.....	140.00
Setting 700 trees, at 5 cents.....	35.00
Fertilizers, at 60 cents per tree, 11 years.....	350.00
Applying fertilizers	10.00
Cover crops, \$2 per acre per year.....	110.00
	\$1,475.00

Mr. Chute, though a believer in mixed farming, conducts his orchard culture without stable manures, relying upon artificial fertilizers and cover crops. The only stock he keeps is one cow, one yoke of oxen for two months' spraying, to be then sold, and five horses. For his hired help, he erected six tenement houses on his farm. His large and small fruit and subsidiary business keep these six families and two others living nearby employed the year round.

Referring to the general prospects of the district, Mr. Chute says land values are increasing through the extension of orchards. One small farm near-by, that twelve years ago sold for \$1,100, changed hands later for \$1,800, then for \$3,000, and last year sold at \$3,500 to Edson Kaiser.

Last season, with a King's Co. delegation, Mr. Chute made a tour of the Ontario and the famous New York State fruit districts, and they returned with stronger confidence than ever in the natural advantages and market conditions of the Annapolis Valley, the prospects of which were never so good as at present. The result of last year's sales shows that Nova Scotia need not fear the competition of Western boxed fruits. With increased apple production and the number of steamships plying between Halifax and Great Britain, landing apples there within seven or eight days of leaving the Valley, compared with 15 to 30 days' costly transport of Western fruit, "we need not worry," said Mr. Chute, over Western competition. He takes the broad and, no doubt, correct, view that the more and better fruit they grow, the easier it will be to market, and at better prices. Practically the only limit to the expansion of the fruit industry in the Valley will be the capacity of its people, not its natural conditions. His faith in the apple business is shown by the fact that he has now 115 acres under orchard, and in four years' time expects to have 175 acres, outside his interests in syndicate orchards. In future plantings, he proposes to follow the close plan, 160 trees to the acre, with low heads and closer pruning, in order to economy in pruning, spraying and picking. The foregoing brief resume of the splendid results from small beginnings ought to be encouraging to the farm apple-growers in the favored districts of Ontario and other Canadian Provinces.