

apples, including picking, packing, cost of barrels, hauling to railway station ready for shipment, varies from 79 cents to 90 cents a barrel according as the yield varies from 75 to 150 barrels an acre. Apples will bring over \$2 a barrel on the average, so there is a clear profit of a dollar a barrel and over.

A small orchard of two-thirds of an acre, owned by Judge Chipman, Kentville, N.S., planted in 1883, has the following record. It originally contained 22 trees, but one was removed after 1898.

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| In 1892, at 9 years of age | 22 |
| In 1894, at 11 years of age | 50 |
| In 1896, at 12 years of age | 80 |
| In 1898, at 15 years of age | 90 |

- 242

One tree not producing after 1898.

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| In 1900, at 17 years of age | 130 |
| In 1902, at 19 years of age | 160 |
| In 1904, at 21 years of age | 140 |
| In 1905, at 22 years of age | 60 |
| In 1906, at 23 years of age | 130 |
| In 1907, at 24 years of age | 15 |
| In 1908, at 25 years of age | 90 |
| In 1909, at 26 years of age | 183 |
| In 1910, at 27 years of age | 4% |

— 913%

— 1154%

During the past eleven years the yield from this orchard has averaged about 83 barrels a year, at the rate of nearly 125 barrels an acre. At \$2 a barrel, tree run, this means a yearly return of \$250 an acre.

A Woman's Ideas on Bovine Tuberculosis

By Daisy Meadows

We are beginning the fight with tuberculosis from the wrong end; killing the cows instead of trying the fresh air cure on the calves, giving them more sun and more play, and what is also necessary, more room to play in. I cannot believe that any animal can thrive without fresh air and play any more than children can. The average cow is kept in such conditions that she must get tuberculosis, "because there's nothing else to do." The first generation find it trying to be shut up most of the time, even in the best of stables. To the second and third generation it is almost fatal except in exceptionally healthy stock.

A person need not be hardy to avoid being sickly, and many people keep strong and well because they are careful to lead normal, healthy lives, with regular gentle exercise, pleasant recreation, and a few regular duties. People and animals seem to be more far apart than we try to make them out to be. There is no getting away from nature.

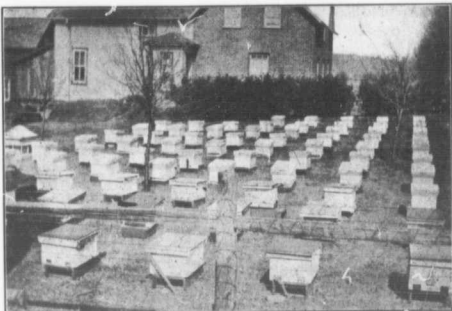
The more I have studied the question the more I am convinced that the common belief that inbreeding valuable cattle means tuberculosis, the more I believe that sickness is not caused so much by the inbreeding as the conditions under which the calves are raised. So far nothing I can read, see, or hear can convince me that it is not best for a calf to start getting a walk and play in the fresh air from the time it is 10 days old. First, 20 minutes if in summer, and gradually increasing until it can sleep and live out after three months, except on stormy nights. In winter 10 minutes is enough, increased to half an hour gradually. In every sort of weather except a blizzard a milking cow should get her walk and play.

AS COMPARED WITH HUMANS

Every nursing mother needs fresh air and a little sun. Every wet nurse is made to take the milk daily, because in this absorption of oxygen the milk is healthier. Not only is the milk from cows healthier under these same conditions for the children who consume it, but for the calves

raised on it. Every mother appreciates the value of keeping herself free from excitement while nursing her children, yet we see farmers allowing cattle to be driven to pasture by dogs or with blows from sticks and stones. Is this milk healthy for children or for calves? Certainly not.

These then are the two extremes—the farmer who allows the cows to stand in the stable sometimes all the year round and sometimes six months only, and the farmer who gives his cows too much exercise and excitement and leaves them to battle with the elements and the sheep dogs. In the latter instance you often find that



A Well-Appointed Apiary That Supports a Family

Mr. Ed. Smith, Northumberland Co., Ont., whose apiary and home are here illustrated, makes a good living from the profits of his "bee-farm." Mr. Smith finds bees so profitable that he has now been riding in his own automobile for a couple of years.

—Photo by an editor of Farm and Dairy.

the cow is half starved while dry. Now what vitality has a calf to start its life with, born from a hungry mother who is kept indoors for six months or a year, even if in a nice light stable? She needs the air and grass and a little fun. People that can't laugh are not good for much. Just let one of these cows out after they have been shut up a few weeks and see how they kick up their heels and frolic. You can't look at them and tell me they do not like it. And what is more, there is the greatest difference in the flavor of the milk from the cow that has had her tumble in the snow in the winter. Don't leave them out long enough to get chilled, but just stimulated.

Watch some of these fancy bulls that are shut up all the year round. Don't they look bilious and bored? So would you be, too. Nobody can make me believe it is possible to get healthy progeny from a bull that is kept without fresh air and exercise any more than you can expect healthy children to be born of a man who is a profligate and takes no other exercise besides indulging his passions.

I read in a dairy paper of a tuberculous man who bought six condemned calves from condemned cows, scrawny little runts, and he cared for them for two years in an old greenhouse, with lots of sun and air. They all got well—the calves and the man, too.

This article may not be well written, but it is worth thinking over. It isn't a fad I have studied, but a practice of my own that I am now preaching.

The fight against tuberculosis in people and cattle is started from the wrong end. We must begin by the rearing of the calves; making them strong by kicking in the fresh air—plenty of fun, plenty of food, and plenty of air.

It is much easier to stop a cow's milk flow than to stimulate it. Farmers who are keeping their cows on pasture to the last day without supplementary feed, seem to forget this.—A. K. Stevenson, Lanark Co., Ont.

Improvements at Little Cost

It is not always necessary to go out and pay the highest price for brand new apparatus when we decide to make improvements. Mr. W. J. Telford, one of the competitors in Farm and Dairy's Prize Farms Competition in 1911, has recently installed a complete water system in his farm buildings for \$114. He purchased a second-hand windmill that was just as good as new for \$60. The elevated tank is a large rubber tub six or eight feet in diameter that its owner had no use for and was willing to sell for less

than the value of the wood. The float tank in the cow stable is of cement and was constructed by Mr. Telford himself. The water device in front of the cows is a continuous trough made of three boards nailed together, also constructed by Mr. Telford. A pipe is run out to the milk stand, which is at some distance from the barn in order that the milk may be water-cooled over Sunday.

Another improvement that Mr. Telford has recently made at very little expense is the installation of litter carriers throughout his stables. Mr. Telford informed an editor of Farm and Dairy, who visited his farm recently, that he had secured his litter carrier and 110 ft. of track for \$20. He bought this carrier from a man who never made repairs. It was out of order and not working right. Mr. Telford had to take the carrier down in his neighbor's stable and put it up in his own; but as Mr. Telford is a handy man the work was done just as well as if a high-priced mechanic had been employed.

"This litter carrier is certainly a grand labor saver," said he, "especially when the mud is deep in the barnyard. I do not consider the labor expense of installing this carrier and water system as amounting to very much, as the work was done in slack seasons when there was nothing pressing."

Fall Care of Alfalfa Fields

Since an alfalfa field gives its best yields after the first year, it is necessary, to obtain the best results, to have the plants pass through the winters successfully. A mistake that is often made in handling an alfalfa field is to pasture it down close or to cut it close late in the fall of the same year the alfalfa is sown. It should not be cut or pastured lower than four to six inches after the middle of September the first year and it will be better to follow this practice during succeeding years.

Under no circumstances should straw or straw manure be applied to an alfalfa field with the idea in mind to protect the plants. Such applications usually kill out the alfalfa plants. There will no harm come from the application of a light dressing of rotted manure carefully spread, but unless the soil on which alfalfa is planted is very poor, manure can usually be used to better advantage by applying it preceding some cultivated crop such as corn or potatoes.—A. C. Arty.

A few more cattle, and
A little more manure, equals
A better farm.

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