

species that nest in cavities will be unduly harassed and prevented from breeding.

Red squirrels should also be persistently destroyed. These animals are second only to the domestic cat as bird exterminators, and will devour every available brood of nestlings unless they are prevented.

A path winding through this jungle would be no detriment, and may often be a convenience. It should go near the trees, and as these will prevent any thick growth coming beneath them, wild flowers can be added to the collection when they are partly grown.

During the first year or two the occasional use of the hoe around the newly-planted things will hasten growth but during the season of bird-nesting, from May 1st to July 1st, too frequent presence on the reserve is not desirable until the birds have become thoroughly at home. A plot of ground treated as described and set apart for a bird reserve ought to begin to show practical results in the second year, and it will be surprising what a tremendous difference in bird numbers can be made by a little attention to their needs. That this attention will give a substantial return in dollars and cents cannot be gainsaid, while for those fortunate country residents who already love the birds and desire their presence the results will be a constant joy.

Middlesex Co., Ont.

W. E. SAUNDERS.

Sugar Cane.

A few days ago we received the following lot of enquiries on sugar cane which we passed on to a valued subscriber who has had considerable experience with this crop on his farm. These are the questions.

Kindly publish in an early issue of your paper an article on "Sugar Cane", answering the following questions:—

1. (a) What is the average yield per acre of corn?
(b) What is the average yield per acre of sugar cane?
2. How do they compare as to food value?
3. Is it best sown in drills or broadcast, and how many pounds per acre?
4. How is the best way to handle it, after cutting, in silo, shocks, or can it be stood up in barn?
5. What is price of seed, per pound, and where could I secure it?
6. Will the seed mature in Ontario?
7. Will it do to sow it with the spring grain, and at the same time?

J. H. C.

I will give some of my experience with the growing and feeding of sugar cane, both for the benefit of your correspondent, and the general reader who may be interested.

He asks for its average yield in comparison with that of corn. With me it invariably out-yields my corn crop, which is of the large White Cap Yellow Dent variety, by at least one-third. By actual measuring, weighing, and estimating I have had 28 tons of sugar cane per acre on four acres of loam land, while the gravelly end on the one side and the clay end on the other, each produced 19 tons per acre. The gravel end ripened at least four weeks earlier than the clay end. I give this information as showing the sugar cane's aptitude for different soils. I had them all in the same field and all had exactly the same treatment. The cane has its preference among soils but will do fairly well on any but a cold one.

As to the feeding value compared with corn. It should never be siloed unless as a by-product after the juice has been extracted for the manufacture of sorghum syrup. But it is in every respect superior to dry corn fodder. On account of its saccharine nature it is more fattening, much more relished by all kinds of stock, can be handled and fed most satisfactorily without going through the cutting box, thus saving much labor and expense, and when harvested at the proper time, and well cured, practically nothing remains unconsumed by the animals.

My method of harvesting is to cut with corn binder and always before frost in the fall, put up in large shocks, leave in field and draw as needed for two or three weeks feeding.

To grow for winter feed, drill in as corn, in the first half of June, from five to ten pounds per acre, and cultivate as corn, hoeing once as it is rather slow germinating, and rather weak to start, the weeds have a better chance to make headway, but after that one hoeing, the sugar cane will look after itself and the weeds too. If you have tried to smother out Canada thistles with corn and failed, just try sugar cane.

Will the seed mature in Ontario? I have no trouble now maturing it perfectly here in Middlesex Co. When I started with it 13 years ago, I would take precaution to keep seed over for fear it might fail to ripen and I would consequently lose the naturalized stage to which I had brought it during the previous years. But now I have it so far acclimatized that I am even more certain of it than of my corn crop.

Seed from the United States and prices may be obtained from most of the seedsmen advertising in this paper, I think. I have not heard of any Canadian-grown sugar cane seed for the trade excepting the limited quantity I produce and dispose of each year.

It is quite satisfactorily sown, according to Prof. C. A. Zavitz, O. A. College, at the rate of 30 pounds per acre, with 50 pounds oats and 8 pounds clover seed, for a summer pasture, leaving the field seeded for a clover crop the following year.

Middlesex Co., Ont.,

EDGAR M. ZAVITZ

Tree Planting.

Editor "The Farmer's Advocate":

As a person travels from place to place, throughout old Ontario, which is now but sparsely timbered, and notes the logs and wood, piled in large quantities at saw-mills and railway sidings, he or she must be impressed with the fact, because I believe it is a fact that it is a short-sighted policy to-day, to further reduce the standing timber without planting at least two trees, for every one that is being cut down, yet we find very little planting being done, (comparatively speaking). But some one says my bush is fast blowing down, while that may be true, is it just because the bush is small and exposed, or is it because the stock is allowed free access to it and have kept down and killed the undergrowth, thereby destroying that network of fibrous roots that unite and help one another in bonding the earth together around the roots of mature trees. This I believe is as great a cause as the smallness of the area in timber. I had hoped for legislation before now along the lines of exemption from taxation of a limited number of acres on each lot or a bonus for trees planted, or something else that would eventually improve conditions, and no doubt such a move would be of general benefit to this province. Another thing that also impresses me, is the lack of protection around buildings. Only a very small percentage of farm buildings have any protection against wind, and if we are to take the past twelve months, especially March 21st, 1913, November 9th, 1913 and March 2nd, 1914 as any guide, the wind is getting worse and playing greater havoc each year. It is every man's duty to plant a substantial shelter belt around his buildings, which will be a beauty spot, as well as a great benefit in a very few years, but some one says, "I am too old to do that. It wouldn't do me any good in my lifetime". To such I would say, the trifle that this shelter belt will cost you, will grow into a much greater legacy to hand down to future generations than its cost would if put on interest, besides the untold benefit to the community and to the province.

Middlesex Co., Ont.

R. H. HARDING.

THE DAIRY.

The Successful Production of Milk and Cream for City Consumption.

Editor "The Farmer's Advocate":

The ever increasing consumption of milk and cream in the cities of Montreal and Ottawa, to say nothing of our towns and villages, has, and is creating a vast change in the output of dairy products in Eastern Ontario and Western Quebec. A few years ago the creamery and cheesery were the only markets for our cream and milk, outside of a comparatively few producers within easy reach of these cities. In many places the creamery and cheesery have been closed; especially in this true of sections through which a railway passes, the milk now going to the city where a higher price is realized. Montreal's milk supply was not so many years ago all produced on the island. With a city pushing its boundaries on three sides and increasing her population at the rate of over 50,000 per year, much of the land used formerly for milk production is now sold for building and other purposes. Consequently the city has to go further afield for its milk supply, and depends largely on the railway to bring in the milk and cream required for distribution. The city of Montreal consumes daily 60,000 gallons of milk, 75 per cent. of which is brought in by rail. This is supplemented by over 4,000 gallons of cream, used as sweet cream and for the making of ice cream and butter. This represents the production of 1,800 one-hundred-acre farms situated within a radius of 100 miles of Montreal. The city of Ottawa consumes daily 10,000 gallons of milk and about 500 gallons of cream, only four per cent. of which comes in by rail. This represents the output of 300 one-hundred-acre farms. Thus Montreal and Ottawa takes the output of milk and cream produced by 2,100 one-hundred-acre farms.

It would be interesting to know just how many of the men on these farms could be termed

successful milk producers. I fear not as large a number as we would expect. You ask me to define what I mean by the term "successful milk producer." It is the farmer who meets the conditions imposed by the city; who furnishes his customer with a milk or cream of good, uniform quality, and from which he realizes a return for his product that will give him a reasonable profit on his labor or investment. What are the demands of the customer? That he be furnished with a milk (free from objectionable flavors, odors and sediment, and containing a fair amount of butter fat, and comparatively low bacterial count. In other words it must be clean milk. Whatever may be said to the contrary, it is no easy task, especially in winter, to produce clean milk. To do so means an additional outlay of time and money, and to meet this extra expense an extra price should be paid.

Clean milk should sell for more than unclean milk, and any factor which furnishes a good market for quantities of clean, sweet milk tends towards the elevation of the sanitary plane in the production of all milk. With this end in view city authorities have adopted regulations, which are not over exacting, governing the production, transportation and distribution of milk. They have inspectors whose duty is to see that these regulations are enforced. Their work usually is not high handed, but rather educational, and it is only when the producer refuses to meet the conditions demanded and continues to supply inferior or dirty milk that the city authorities refuse to allow his milk to be sold for consumption.

In the two cities previously referred to, let us see how the producers are meeting the conditions called for, judging from the output of their dairies as it is delivered to these cities. From reliable information, as to the quality of the milk supplied to Ottawa, I have reason to believe that nearly all the milk distributed grades first class, as determined by a bacterial count, sediment test and also a test for butter fat. Montreal cannot make as good a showing, as from information secured from a reliable source, gives 40 per cent. of the milk supplied as first class, and 60 per cent. as second class. This is a deplorable showing, especially when we realize that milk is one of the most widely used articles of diet, and the chief food of many a delicate babe or invalid struggling for life. Who is to blame for this state of affairs? Surely the producer. Methinks I hear him say, "I am not paid a price sufficient to enable me to produce high-class milk." This is true to a certain extent. Ottawa dealers pay a higher price than do the dealers in Montreal, which encourages the production of high-class milk, with the result that a greater per cent. of high-class milk is supplied. Leading Montreal dealers have refused to pay the price for high-class milk, which has tended to dishearten the producers who have gone to much trouble and expense in fitting their stables and dairies to meet the regulations imposed.

Montreal dealers say that \$1.80 per cwt. in summer and \$1.90 in winter, delivered at the home railway station, should satisfy the producer. Leading Ottawa dealers say that milk is worth \$1.70 per cwt. in summer and \$2.20 in winter at the dairy, and pay accordingly. Which city is more likely to receive the better milk? You may draw your own conclusions. The Montreal Milk Shippers' Association, comprising the leading milk and cream shippers from the district surrounding Montreal, fixes a maximum price for milk and cream, and its members endeavor to maintain that price, but all do not get it. Even many of its members who produce a first-class article have difficulty in getting a price equivalent to the product delivered. It should not be expected that poor milk would sell for the same price as a good article. Therefore, milk should be graded by the city authorities into three classes, sanitary or certified, standard and market milk. The latter, to safeguard the health of the people, should be pasteurized before it is delivered. This grading would be an incentive to the farmer to produce milk of high grade, as he would be paid according to its quality, and equivalent remuneration is the first element that leads to the successful production of milk.

How may the farmer produce a clean, wholesome milk that will keep well until delivered, possibly 24 or 36 hours after it is milked? By observing two things, cleanliness and cold. Of course, in this article we presume that the producer has healthy cows. A certain writer on this subject said, "All animals from which milk is produced for human use should be certified by a veterinary surgeon as healthy,—sound internally and externally,—free from anything objectionable in the way of skin or teat trouble." I believe in testing the herd at least once a year with tuberculin, and if any reactors are found, dispose of them to the butcher. In other words have clean cows physically.

While nearly all city regulations require not less than 500 cubic feet of air space for each animal in a dairy barn, yet it is not essential in our rigorous climate that each animal be given this amount of space, provided there is good