

# FOR FARMERS, STOCK BREEDERS AND GARDENERS

## TIMELY NOTES ON TOPICS CONNECTED WITH Silver Fox Farming



The latest thing in a fox coop is a small pen 6 feet long, 4 feet wide and 4 feet high, with wire bottom and covered roof top. It has handles on the side so that it can be moved around from place to place in a field. An exercise wheel is placed in it and the smallness of the quarters is compensated for by it. Those who have tried out the scheme claim that it is all right and a whole lot of them are being built this year for use on western and central state ranches.

That is one way for our American cousins to develop foxes. The other extreme is shown by the Facon Bros. ranches at Thiensville and Milwaukee where the pens are removed the latter part of August and taken north to a wooded enclosure with an area of hundreds of acres. It is surrounded of course with wire guard fences and patrolled regularly by mounted men to prevent the wire being cut or to note any place where the foxes are endeavoring to break through.

Both these methods of growing foxes have been tried out and the results are satisfactory to each party, which exemplifies the truthfulness of the old saying that there are more ways of killing a cat than by drawing.

If the rancher with the small pen can get anything approximating the price for his pelts that the Fromm's do, he has them beaten to a frazzle, because his overhead for such equipment will be so much smaller. Although the Fromm's feed very cheaply—that is to say their feed is bought cheaply yet the large runs which they use gives the foxes a much greater appetite and they use up larger feeds than foxes domiciled in smaller quarters. There is also a lot of feed wasted in the big runs.

The Hudson's Bay Company will offer for sale at their warehouse, London, July 22nd, 7,000 Canadian beaver, 23,500 mink, and 350,000 muskrat skins.

In his address to the Ontario Fur Farmers' Association at their annual meeting June 19th, Mr. Mayers of Frederic Huth and Company, New York, pointed out that one of the outstanding faults in handling fox pelts was the over-stretching of the neck, and he demonstrated by means of tacks and cardboard how this error might be avoided.

At the same meeting Leth J. Taylor, Ontario Deputy Minister of Game and Fisheries, spoke and told them that the Ontario Experimental Fur Farm cost more than \$50,000, and that the annual upkeep expenses are \$16,000. "There are at the present time slightly over 1,100 registered fur farmers in the province of Ontario," said he.

Dr. Ronald G. Law, who is in charge of the Ontario Department of Fur Farming, gave a talk at the same meeting on the feeding of foxes and mink, in which he stated that in order to raise good pelts his experiments show that two different systems of feeding are necessary. Foxes to be kept for breeding purposes should be fed well in the summer as well as in the fall and winter and not starved during the summer months as is practised in some ranches. From early fall through to the middle of January the ration should be almost exclusively of red meat, gradually increasing the amount of cereal portion the maiting season approaches.

On the other hand he said that pelts must be given a different diet. If a heavy diet of red meat, especially horse meat, is fed in the early fall, it will be found almost invariably to result in rusty pelts. His advice is to strictly avoid such a diet. Raw cereals, he said, have proved by experiment to be detrimental to both foxes and mink.

At the same meeting Dr. A. A. Kingscote of the Ontario Veterinary College gave a talk on the parasitic diseases of mink. With the aid of an excellent sketch of a mink he gave a most interesting and instructive lecture on the various types of parasites peculiar to mink. These were divided into the classes of those which affect the wild mink and those which affect the ranch mink. He stated that in feeding mink on their natural food the rancher is much more liable to run into parasitic troubles than if he feeds the normal ration on the larger ranches. Mink being a rather difficult animal to handle, Dr. Kingscote believed that the best

## ANIMAL HUSBANDRY

(Continued)

In feeding brood sows when dry, a mixture of ground oats, barley, shorts or middlings, with skim milk, buttermilk or whey, makes a good ration. A sow weighing 300 pounds should have about:

- 2 lbs ground oats
- 1 lb ground barley
- 1-2 lbs middlings or shorts
- 6 pounds skim milk or 12 lbs whey
- 1/2 lb. roots, preferably mangel

If milk is not available, about 1-2 per 3-4 lbs tankage, or the same amount of oil cake, should be fed. In addition, should be fed alfalfa or red clover hay in a feed rack.

It is a good plan to have a mineral mixture available to breeding sows at all times. While we have always considered it necessary to "salt the cattle," few farmers think of "salting the hogs" except their carcasses to be cured for pork.

Salt is a necessary to pigs, but they do not consume it in very large quantities. The Department of Animal Husbandry in the University of Alberta recommends the following mineral mixture for hogs:

- 70-120 lbs. soft coal
- 2-12 lbs. slaked lime
- 23 lbs. salt
- 1 lb. sulphur

Breeding sows should be on pasture, and where they have abundance of green feed to eat at will, very little grain need be fed when sows are dry. Two pounds per head per day is quite sufficient.

Sows that are suckling young pigs must be well fed, and their ration should be prepared with a view to nourishing both the sows and her young.

If a good supply of skim milk is available, there can be no better addition to a meal ration than this. Twenty to twenty-five pounds of milk might be added per day, and six to eight pounds of roots might be fed in addition.

The meal ration would vary according to the size of the litter. A fair ration would be:

- 3-1-2 lbs. ground oats
- 3-1-2 lbs. ground barley
- 4 lbs. middlings
- 1-2 to 3-4 lbs. linseed meal or tankage

It may be well said that a pig's tail is his flag, and when he carries it with a jaunty curl you may be sure he is well pleased with the world in which he is feeding. Vigor, thriftiness, and good health are indicated by a well set curl in a pig's tail. This is a very easily observed feature, and determining its good health, and the competent pig breeder likes to see his animals carrying their tails in that graceful swirl which is always the mark of a healthy hog.

When a pig's tail droops, its flag is half mast. The straight hanging tail is a signal of distress. It is then time to look into its diet, to see if the mineral content of its feed is sufficient, or to make a general enquiry as to the cause of their badness of unthriftiness, and drooping tail. Pigs' tails should be kept in curl. —AGRICULTURIST.

ever, what damage or danger can there be to the fox if he really has, apart from lungworms, a few other worms? We have been keeping foxes for the past ten years in the same pens. These foxes, if it is found necessary, are killed for worms once or twice a year. Besides this they receive once in a while garlic, turnips and onions, mixed into the food, and also on occasions feathers are admixed.

Since the beginning of this year, of about 60 foxes, 5 tests of the droppings have been made at intervals of 10 days in succession; the results of which showed that the infestation of worms was low and below normal. The few worms they had did no damage, since their records are positively a success; firstly by producing large litters and raising their pups to maturity, and secondly, the price realized for the pelts of those which went on the stretcher.

Dr. G. Eichenbach goes on further to state that his experiments with small wooden floored pens were very unsatisfactory from a breeding standpoint. True, he says he may have made some errors in feeding, but for the greater part he places the blame on the small wooden floored pen.

The above comments by our German friend certainly make interesting reading, but they do not quite fit in with our experiences in this province where at least 75 per cent of the foxes are raised on board floors. We think the Doctor's feed system must have been considerably wrong and the blame cannot be laid to the cause he assigns it to.

## NEWSY NOTES

BY AGROLOGA

### MAN'S MEDDLING

The other night in talking to a friend who is greatly interested in the natural history of the Province, I learned with some astonishment that bounties had been paid on more than 10,000 muskrats in a considerable amount to pay for some fur-farmer's mistake; but the event illustrates what happens when the "balance of nature" is interfered with. On reflecting on this matter I recalled a rather extensive list of plants, insects, birds, and beasts that have been accidentally or knowingly turned loose in countries to which they were not native, and having no natural "control," have given endless trouble.

The common water-cress, which has been introduced from Europe into our brooks, is quite harmless here but in New Zealand it fills the streams with stems twelve or fourteen feet long and as thick as one's wrist. The spear-thistle, which on the authority of Sir James Hooker, grows from two to five feet high in Britain, runs rampant in New Zealand making vast impenetrable thickets six or seven feet in height. We know this plant as the Bull Thistle (*Cirsium lanceolatum*) which is often met with in rough pastures, but is easily controlled in this country. Some regions of Australia have been over-run by a species of cactus which put thousands of acres of good land out of cultivation till the entomologist took the matter in hand and introduced a list of 151 introduced weeds, a few of which are more than usually well found in the pamphlet "Flowering Plants and Ferns of P. E. Island" issued as a bulletin by the Provincial Department of Agriculture. Before leaving this part of the subject, it must be remarked that a fern, the *Pteris aquilina* of Linnaeus, is proving a serious menace to upland pastures in Scotland. In some of the glens a man over six feet high is "submerged in the fern," which is able to suppress both the natural grasses and the heather by crowding them out. This fern, known as broken or brake, is quite plentiful here, and formed the subject of an experiment by the writer some three or four years ago. In the summer when the fern leaves had unfolded, and the stems were sufficiently hard, a part was cleared by hand pulling; being particular to draw up the spindle-shaped rootstock. A few weeks later another growth of fronds was observed on the same patch, and these were pulled in the same manner. From that day to this there has been no broken or brake in the plot. It was seen that the fern, while sending up a current year's growth, is preparing a shoot underground which will appear the following spring to the normal order of events. When the present growth is removed this second shoot is stimulated to appear above-ground in a year, and is also pulled the root is exhausted and nothing more is produced. Dried broken when the hay is harvested has been poisoned many horses in Canada.

I will only make a brief mention of the insects—those rapidly reproducing creatures which are a menace to the world as a whole. The entomologist calls them, as immigrants the corn-borer, the peach moth, the Japanese beetle, and the White Cabbage Butterfly have made themselves at home on this continent. On the other hand Europe has acquired from us the Colorado potato beetle and the Pyralis, which attacks the vineyards. The potato beetle is steadily spreading northward in France, and has made tentative invasions of England. The coming of an insect into a country where its natural enemies do not exist, permits it to increase rapidly and do enormous damage, a condition which persists until a technique for controlling it has been evolved. The alert reader will remember the alarm which was experienced on the outbreak of the gladioli thrips, and how it subsided as man "gained the upper hand."

But the insect immigrants in about ninety-nine cases out of a hundred are stowaways. Not so the birds; the species that we would most gladly part with have been knowingly introduced by man. In the year 1880 (or 1891) one hundred starlings were introduced into the City of New York by some short-sighted lover of birds. Soon they began to spread along the coast, and then to penetrate the interior. By 1916 they crossed the Alleghenies, and now starlings are a pest throughout the continent. The House ("English") Sparrow was an earlier arrival having been introduced in 1850. It is with alarm that we record the great increase of these pugnacious creatures, which are, in the long run, bound to drive out our native small-birds. The skylark, the favorite of the poets, has been introduced into New Zealand, where it is said to be unaccommodated by the native species.

With regard to the introduced animals, we can scarcely blame man for the presence of creatures like the mouse and the rat, except perhaps on the score of carelessness. But the deliberate introduction of the "domestic" rabbit into Australia has brought about a very serious situation on the Island continent. "In the absence of their usual enemies they multiplied exceedingly, turning enormous tracts of useful soil into desert," says one historian. And their rate of multiplication has defied all checks up to the present day.

Some misguided person, struck perhaps with the friendliness of the American grey squirrel, imported the first pair into England in 1889 and other introductions followed, to the total number of thirty-three. It was speedily found that this squirrel was very destructive to trees, and definitely worked against reforestation of the districts in which it abounded. At Burnham Beeches it is recorded that 4,000 have been shot in ten years without reducing their numbers. Complaints are also made that the allens are ousting the native species, the red squirrel. "One squirrel is enough," say the naturalists.

The history of the muskrat in Europe is the history of a great mistake. In 1905 two pairs of musquash (to give them their more elegant name) were transported by an Austrian nobleman to his estate in Bohemia. They were turned loose, and as there was no check upon their numbers increased till they began to break down the banks of streams, and the dams of the fishponds. They fed on the crayfishes and mussels—both valuable commercially—depopulated the trout ponds and streams and were said to raid fields, gardens, and poultry-yards. Germany was invaded about 1914, and by 1928 the muskrat had become a pest. In that year from 60,000 to 80,000 muskrats were sold in Berlin alone. But the end is not in sight. In 1932 there were fourteen licensed muskrat farms in Britain, and they were supposed to keep the animals in close captivity. Evident of digging down many feet some individuals made their escape. The numbers of "free" muskrats are now computed to run into millions and they have become a plague in some parts of Scotland and in the Severn Valley.

Man's meddling with the "balance of nature" is a costly affair.

## Stringing Along With String Beans

### They Need Warm, Sandy Soil For Best Results. Grow Both Green and Wax Types.

Beans are now in bearing in the southern states, in process of planting farther north, and waiting to be planted in the gardens of the more northern states. The string bean (which modern plant breeders have made stringless) struts its way from south to north and back so that we have fresh string beans in the market every day in the year. It is universally liked.

Beans should not be planted until the soil is warm. They are very tender to frost or to cold cutting winds in their younger stages. Gardens with light, warm, sandy soil can get an earlier bean start than those with heavy colder soil.

The first crop, in which we take a special interest, is the wax bean, which is given the warmest, mellowest, and best drained patch in the garden. Later on when the frost danger is past it will make little difference, as the string bean is the most obliging of vegetables and will even produce a fair crop in positions much more shaded than some other vegetables will tolerate.

The choice of varieties is first of all whether you want to grow green beans or wax beans. Both have their advocates as to superiority of flavor. Then you must choose whether you want a round podded or a flat podded bean. Some claim the round pods are more tender than the flat, although there seems no sound basis for the argument.

There are numerous excellent varieties from which to choose and almost any sort of soil is a suitable seed house will give excellent results. The stringless green bean is offered by all a standard variety, various strains having been developed from the original variety.

String beans are now so often grown in rows the individual plants 6 inches apart, as in the old style hill manner with two or three plants to a hill. Greater production and easier cultivation is claimed for the row type. The one warning concerning their cultivation is not to water the patch while the leaves of the beans are either with dew or from rain. Rust seems to follow. A rust spotted pod ruins it for culinary use and this is about the only disaster likely to happen to a string bean.

Get the bean patch well dug, fertilized and in beans every two days or two weeks for succession crops.

## Marvelous Life Led By The Oyster

### Bivale Changes At Maturity From Male To Female And Back Again. Eggs Fertilized In Body.

The following interesting article from the New York Times of Sunday July 7th has been sent to the Guardian by Mr. John J. Louson, of Montreal, who hopes to renew friendships here during the coming summer.

The curator of the aquarium at the London Zoo is astonished to find how little people know about that luscious bivalve the oyster. So with the aid of Dr. Orton, head of the British Government Survey at Plymouth, he writes a romantic biography in *The Observer* of 1,000 words.

"The oyster starts its life as a free-swimming organism, keeping itself afloat and moving in the water for about a fortnight by means of the cilia, its fairy-like paddles, in energetic motion. Gradually its developing shell becomes heavier, the weight becomes too much for its most sturdy oesophage, and it sinks to the bottom until it touches some solid object.

"On its luck, for one can describe it in no other fashion, at this stage depends its future existence. Landing on mud or soft sand, its doom is sealed and many millions of oysters in this fashion perish annually. If it alights even on a hard but slime-covered object it has but little more chance. Its real hope under natural conditions is to strike hard, clean rock, and the oyster cultivator, knowing this, puts down at the right time of year—high summer—clean old shells, clean slates, or, perhaps best of all, tiles coated with lime and sand.

American Experts Vary

"For cheapness and for ease of detachment of the developing oysters the American experts have lately used the rectangular cardboard egg holders from egg boxes, similarly coated with lime and sand.

"Once settled the oysters have literally nothing to do but eat and grow. Its new occupation in life is to strain gulf after gallon of water through its filtering mechanism, which retains the minute food organisms and passes them on into the mouth of the animal.

"It is one protection against its enemies in its hard shell and the ability to keep the two halves firmly closed by the adductor muscle. Crabs, however, can break it open. Starfish may either pull the shell apart, or by means of a convenient

arrangement, when the oyster is too big and strong for this operation, and equally too big to swallow, they sever the stomach and crush the unfortunate oyster, shells for fresh supplies of oxygen shells for fresh supplies to open it is attacked, weakened, and finally destroyed by the digestive juices.

"Certain boring molluscs may also attack and destroy it, some sponges may reduce the shell to a honeycombed mass, or it may be overwhelmed and starved to death by the slipper limpet, which has been imported by accident with oysters from the United States.

"In its second summer the oyster reaches maturity, and it is with the investigator of this period of its life that Dr. Orton has been chiefly associated. The oyster is not a hermaphrodite nor is it propagated by division. It is bisexual but any one oyster does not belong to one sex throughout its life.

Transformation of Sex

At first maturity the oyster functions as a male. Without six weeks of that time it may be a female carrying a full complement of developing embryos. When these are ready for the free swimming stage they are discarded into the water, and the parent its duty done, again becomes a male and goes into a resting stage from which it will not emerge until the following summer, or possibly, a year later than that, when the cycle is again repeated.

"Unlike the eggs of most fish, the eggs of the oyster are fertilized within the body of the parent, where they are retained until the developing embryos of which there may be a million or more, have actually reached the form of small oysters. They are not, however, immediately extruded into the water, but first spend an intermediate existence in the mantle cavity of the parent, where they may continue to develop actually in water, but under fully protected conditions.

"At first, unless examined under the microscope, they resemble a milky fluid, and to those in the trade the oyster is then known as 'white stock.' As the shell develops, the mass becomes gray and then dark, when the parent oyster is described as 'black stock.' At the end of this stage the young oysters are literally blown into the water thereafter to fend for themselves."

## The Canadian Apple Crop

The preliminary estimate of the 1934 Canadian commercial apple crop is 3,890,643 barrels, as compared with 5,473,233 barrels in 1933, a decrease of approximately 29 per cent, says the report just published by the Dominion Department of Agriculture. All producing provinces, with the exception of British Columbia where the crop approximated that of last year, recorded a decrease, due chiefly to frost damage during the winter of 1933-34. The Nova Scotia crop declined 26 per cent below the phenomenal yield of 1933, while Ontario and 70 per cent were recorded decreases of 48 per cent, 61 per cent by New Brunswick, Quebec, and Ontario respectively, due to a direct result of frost damage. Consequently, local supplies in Quebec and Ontario were insufficient to meet demand and a large volume of Nova Scotia apples was imported. These apples sold at proportionately low prices.

There was also a considerably large volume of Ontario apples available for distribution than was anticipated at the beginning of the season, which, together with the Nova Scotia arrivals, resulted in an unusually large proportion of low grade apples on Central Canada markets. The depressing effect prohibited higher price levels for the comparatively small volume of top-grade stock available, and the reaction on the domestic market paralleled that of the English crop, on United Kingdom markets. The experience of the season just concluded clearly illustrates, says the Report, that volume shipment of inferior fruit reacts to the detriment of all concerned and will not create a permanent demand for apples from this source.

A NOVEL REASON

LONDON, July 11—"I cannot attend court as I have recently obtained a position as a driving instructor, and a motor car was fined \$10 at Kingston for driving at the wrong side of a traffic island.

ing with a decoration of quassa chips.

A little visitor (very small) confided to me that he has a string of berries plant, all his own. Said he, "I soften the soil about it." "How do you do that?" said I. "With the hoe," was the answer. Now that little fellow has "the root of the matter" though his theory may be faulty. The stirring (or cultivation) of the surface soil conserves the moisture for the roots of the plant to take up. That boy will make a gardener all right! And he is learning to ride, a hobby that will help him to earn a livelihood in his working years and will give him an interest when age overtakes him. None is so poor as the man without a hobby!

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