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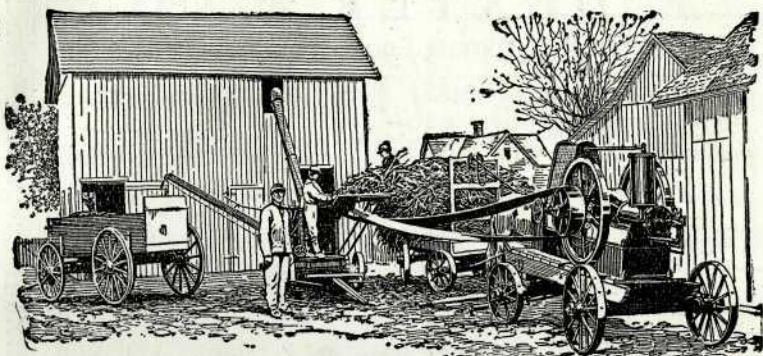
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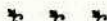
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AGRICULTURE



SHEEP RAISING IN NOVA SCOTIA.

There is no province in Canada better suited for sheep raising than Nova Scotia. Its rugged and rolling pasture lands, which comprise about one million acres, make it better suited for the raising of sheep than any other stock. A large per cent. of these pasture lands are covered with short nutritious grass and white clover, which provides the best of feed for sheep. In connection with these pastures are usually found good conditions for the raising of roots, rape and mixed hay for winter feeding. With these feeds and corresponding care in the improvement of the flock, I think the revenue of the farms could be greatly increased and the land would be improved in fertility.

There are several things about sheep, however, which make them especially well adapted to occupy a place on almost any farm, which are as follows:—

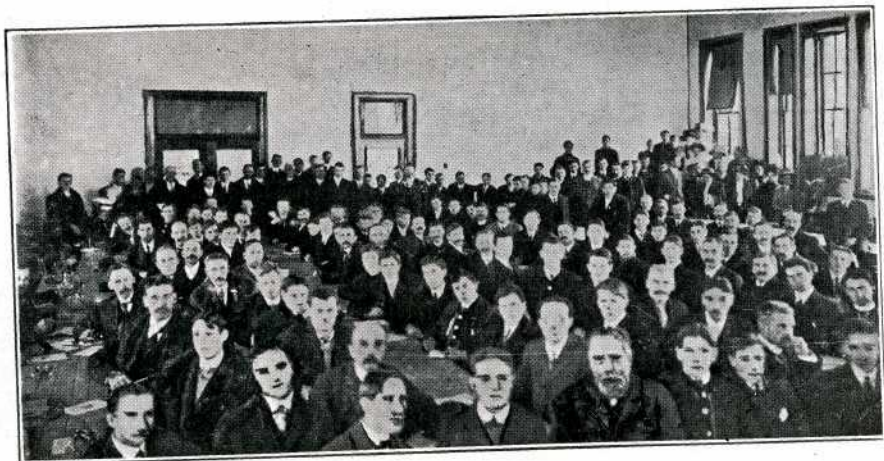
(1) Sheep will eat a great many kinds of weeds which other stock will not touch. This makes them valuable as scavengers.

(2) They will live on very poor pastures where other animals would starve. Their activity enables them to travel long distances after food. The formation of their mouth makes it possible to graze close to the ground, thus enabling them to feed on pastures that other stock could not utilize.

(3) Sheep require very inexpensive buildings; almost any kind of shelter will answer the purpose as long as it protects them from the roughest weather and is reasonably dry and free from draughts. There is no stock for which cheaper buildings are required.

(4) There is comparatively little labor involved in taking care of a flock of sheep. There is no other animal that requires less labor in feeding and management.

(5) They grind their own grain, which is quite a factor, and adds to the cheapness of their maintenance. The weed



SHORT COURSE CLASS JUDGING SEED

The
Maritime Students' Agriculturist

Vol. VII. Truro, N. S., January, 1915 No. 3

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EDITORIALS.

One of the most important things to be done by the people of Nova Scotia in the coming year is to carry out the policy, "Business as Usual." Business must not stop; our everyday life must continue in its usual round of work and play. With this policy in mind the College laid plans for not only the usual short course, but for an unusual one; and we got it.

There were more Nova Scotia men in attendance this year than there ever were before. There were more women attending the ladies' classes than ever before. The whole course was marked by a most intense earnestness, a desire to know the possibilities and duties which lay before the Nova Scotia farmers of today. They had only to ask, for there were instructors at their disposal which were the equal of any to be found in the Dominion. In addition to the regular staff, the College was able to secure excellent men from other provinces. The regular students of the College appreciated very much the privilege of attending the lectures given by some of these men. We were also very much pleased to listen to Premier Murray.

It is hardly necessary to introduce either Dr. Sinclair or Dr. McPherson to the students, as their acquaintance has already been made. This acquaintance is rapidly growing into a friendship, which we hope will be as pleasant and profitable to them as it will be to us. We wish them both every success in their first year at N. S. A. C.

We congratulate the N. S. A. C. graduates who are at McDonald. They made the following standings in the Junior Class:

First	C. F. Collingwood
Second	R. Schafheitlin
Third	A. Kelsall
Fourth	C. B. Gooderham
Sixth	C. F. Peterson
Seventh	E. A. McMahan
Eleventh	C. E. Boulden
Twentieth	E. C. Spicer.

The last named was sickening with typhoid fever at the time of the examinations or his marks would have been higher.

We're proud of you, graduates.

seeds that the sheep consume are never known to grow again. This cannot be said of other stock.

(6) They are economical producers of meat. It is generally estimated that to produce a pound of increase in weight a sheep requires from 8 to 9 lbs. of dry matter in its foods, whereas a steer requires 12 to 14 lbs. They also compare favorably with the pig.

(7) The sheep gives two products in a year, namely: wool and lambs.

But while the sheep has so many things to recommend it, I do not think it would be wise for the average farmer to stock up with them alone.

The question now comes up, what are the best breeds for Nova Scotia? In answering this question we have to take into consideration the climate and other conditions. The winters of Nova Scotia are long and there is a great deal of rain. We want to look for a breed of sheep that has a fine and compact fleece that will shed the rain, and a strong constitution to stand the varying conditions to which they are subjected. The Shropshire fulfils the requirements better than any other breed. The fact that at the present time it has the largest number of registering breeders indicates its great popularity. The Oxfords and Hampshires are close rivals. The fleece of these is a little more open than the Shropshire, but they have the good mutton type that is always sought after.

One of the greatest draw-backs of Nova Scotia for profitable returns from sheep is the long winters and late springs, and anything that we can do to shorten the inside feeding period will help out the profits from our flock. Like other stock they must be fed when the ground is covered with snow, and it is up to us to feed them as good and as cheaply as possible, for on this point to a great extent depends the profits.

Where clover can be grown, and that is in most parts of the province, it must be the principal winter fodder for sheep. To supplement this and provide a change, peas cut green and well cured are excellent, and with the addition of turnips makes

a good ration, one that will bring the flock through the winter in good shape. Now there is always a time just before the ground is covered with snow in the fall and early in the spring before they can be turned out to regular pasture that the sheep become restless and will not take the feed that they relished in the winter. It is just here that the farmer must be careful or he will lose a lot of the profit that he would have had if he could have provided some green feed for that period. It is at this time that the sheep are having their lambs and we all know how important it is, to have some green feed, so they will have sufficient milk to give the lambs a good start.

There are several varieties of green feed to select from for fall feeds, such as rape, vetches, and several kinds of turnips. Those for early spring feeds must be confined to rye and clover. Rape sown at intervals from the middle of June to August first will provide feed till the hard frosts of winter, if it is not grazed too closely. Winter rye sown in September will give green feed the last thing in the fall, and if not fed too closely will provide the green feed that is required in the spring.

Before closing this article I must speak sometime of the cost of maintaining a flock of sheep for one year. No two men will feed a flock for the same cost or derive the same profits. For a general idea we will make the following statement, which I think is well within bounds:

Expenses.

500 bus. turnips at 10c.	\$ 50.00
50 bus. oats at 50c.	25.00
1 ton Bran	24.00
12 ton Clover hay at \$10.00	120.00
Pasture	4.00
Extra	2.00
	\$225.00

Income.

70 lambs at \$4.00	\$280.00
300 lbs. wool at 30c.	90.00
	\$370.00
Profit.....	\$148.00

This is taken on the basis of fifty grade ewes. We do not take into consideration the labor item because that is offset by the value of the manure.

I think that sheep have shown themselves to be the farmer's friend and proved their right to a place in his farm management. It is a wonder why there are not more of them kept on our Nova Scotia farms. We trust that in the near future their value will be recognized and their numbers increased.

P. S. '14.

BACK TO THE LAND.

I had been sick; my wife innocently remarked that I worked too hard meal time. This was not so, as I always took two hours each meal, but I did not contradict her as I knew it was useless to argue, so I went to a doctor. He looked me over, judged the size of my purse, and said my equatorial circumference was too great for my front elevation. He advised me to live in the country and live out of doors. I paid him \$10 and went home full of enthusiastic thoughts of a summer out on the farm with the cows, sheep, horses, dogs and hens, as I had seen in pictures of farm machinery and condition powder calendars. I could see myself pulling the ripe potatoes off the plants and scraping sugar off the sugar maples for our breakfast, with unlimited freedom and fresh air our only luxuries. In fact living the simple life, thus lowering the cost of living.

I told my wife of the plan and told her of my visions and started back to town to get a blue and white overall suit, a pair of cow hides, a straw hat, and a clay pipe. I sent away for nine different seed catalogues so I could decide by the pictures what to grow. When my wife saw my overalls she said something about doing the scare crows out of a job, but what do women know about how farmers dress? She also sarcastically asked if I was not afraid to go to the farm for fear I would get mixed with other cabbage heads. I replied I was not a cabbage but a brand new hayseed. She said I must have sprouted as I was as green as grass. Women always do have the last word.

The next day I bought 30 acres with a horse and barn through a real estate agent for the small sum of \$3,000. Next week my wife and family, my farm and household utensils and myself, in my farmer uniform, moved in and took possession.

About twenty acres were under water and had a great crop of tadpoles. My wife was exerting her brain to find expression to suit the occasion and they mostly were directed to me. I did not see much wrong, all that was needed was a doorstep, two doors, twelve panes of glass and a chimney. That week I spent in setting up house keeping.

One day I saw a small bird sitting on a flower, and as he seemed tame I put my hand on him. I heard a buzz-z-z and next minute was shouting for some one to help him let go. My wife said I ought to have known as I had a bee in my bonnet all my life. (I thought it was a lightning bug and I had touched one of his electric wires). I replied I had often been stung in bonnets, especially hers, but it usually stung my pocket instead of my hand.

Well, we started gardening. I decided to plant about two acres and bought two loads of manure to make it rich. On second thought I decided to get a bag of chemical fertilizer also, but when I got it it smelled so bad I decided it was either soured or decayed, or both, so I sold it to an unsuspecting rube for 50 cents. I noticed all the neighboring farmers were rather envious of my blue and white overalls and straw hat, as they turned to look at me every time they went by. They also seemed willing to learn, as they would look over the fence at my working, with an expressive and admiring grin.

I decided to grow something that was a vegetable and also something I could call a flower, but the seeds were English and owing to the anti-German feeling they refused to germinate. As the garden was rather wet I planted at regular intervals a few leeks so the water could go away. In spite of the fact that I dug most of the seeds up every little while to see if they were growing the garden did not amount to much. I decided horticulture was not a profitable undertaking in these days of close competition, so I decided to go in for live stock.

I went out one day and bought a cow. She was such a gen-

tle looking creature, with a mild eye, sleek shiny coat and lovely horns.

When morning came I started out to milk her, getting a pail according to directions, and a bench and cushion, I put the pail on the ground, took the book of directions in my left hand and a teat between the thumb and first finger of the right hand. I gently squeezed with results startling by their absence, as the book said a stream of milk would surely follow such an operation. I pulled a little and a stream of milk found its way into my right sleeve coat. At the same time she neatly flicked an imaginary fly off my right eye with her tail, and tickled the side of my head with her hind foot.

After an hour of strenuous work I got about a pint of milk in the pail and was going to quit when she calmly put her foot in the pail and it took me five minutes to lift it out. When I had sufficiently given vent to my feelings by quoting Burns I proceeded to take her to pasture.

I attached a rope to her horn, and to make sure she would not get away I tied the other end to myself. During the operation she only stepped on my foot three times and hit me in the ribs with her horn four times and kicked my dog. The dog arrived at the fence tail first and immediately came back head first and connected with the cow's hind feet. The cow jumped and started to run. When the rope tightened I started also, with a view to speed rather than to grace. She jumped over a barbed wire fence, and a few seconds afterward I came to it too. I left it, also various portions of my apparel and epidermus, and then we went down the road, I being about thirty feet behind with my center of gravity too near the ground to be comfortable. Then the rope broke and I gathered my scattered wits together, and slowly made my way down the road.

I had staid in the country six weeks and had strenuously pursued the simple life. It had cost me a lot of money and 20 pounds of weight so I decided it didn't pay. The next morning saw us all leave for the city. Good bye, country! good bye, simple life! we're going to live the most complex double and twisted, in and out life we can find.

CHARLES AUGUSTUS.

HORTICULTURE

SOME VEGETABLE INSECTS (Continued from Dec.)

Peas.

PEA APHIS (*Macrosiphum pisi*):

This green plant louse has been the cause of a loss of several millions of dollars to pea growers along the Atlantic coast, but it has not been so abundant in recent years. Hibernating on clover and vetches it attacks the peas when they are about eight inches high, and as there are probably 15 generations in a season, its numbers soon increase. By mid-summer most of these wingless forms have been destroyed by predaceous and parasitic enemies, and disease, but they again become common in the early fall. They later migrate to the clover, when winged males appear, and some of the wingless females produce eggs.

Large numbers of the insects are killed by parasitic members of the family Braconidae, and by the lady-bird beetles (Concinnellidae), syrphus flies (Syrphidae) and lace-winged flies (Chrysopidae). But the most important enemy is the fungus disease (*Empusa aphidis*) which is the principal factor in the natural control of this aphid. Aphids affected by this disease become swollen and turn brown.

As the aphids spread from the peas to the clover it is advisable to plant the latter crop at some distance from the peas. As early varieties of peas have practically escaped, whereas the late varieties are sometimes wholly destroyed, it is advisable to plant the former. When the plants are in rows it is a very good practice to brush the aphids to the ground and then follow with a cultivator. The aphids are then covered with the earth and are either suffocated or killed by the heat of the soil. A long shallow pan, in which a little water has been placed at the bottom and covered with a film of kerosene, has been used with good results. This is dragged between the rows and the aphids being brushed into it, are killed by the kerosene.

Although the above methods are good they are not thorough as many aphids are still left on the vines. Hence spraying must be resorted to. If kerosene has been carefully prepared it may be said, 1 pint to 12 of water. The soap solution, as used for the cabbage aphid, and Black Leaf 40 are very good sprays.

PEA MOTH (Semasius gricana):

This insect has been imported from Europe where it is an old pest. The wings of the adult moth expand about one-half inch and are of a dark brown color.

The females fly around the blossoms soon after sunset and deposit their eggs on the young pods. The caterpillar on hatching feeds openly on the peas within the pod, and when mature it leaves the pods to pupate in the soil. Very early and very late varieties are but little injured.

After the crop is off, burn the vines at once. Deep fall and spring plowing would be helpful by burying the cocoons. As early varieties are very slightly attacked, one of the best means of handling this pest would be the growing of such varieties as Alaska, Nott's Excelsior, McLean's Little Gem, and First & Best. Dr. Fletcher has had some promising results from spraying with paris green, $\frac{1}{2}$ lb. to 40 gals. of water. He sprayed three times; the first as the blossoms begin to fall; the second, a week later; and the third ten days later than that.

Potatoes.

COLORADO POTATO BEETLE (Leptinotarsa decemlineata):

This is the chief foe of the potato. As its name indicates, it was originally a native of the Rocky Mountain Region, where it fed upon wild plants such as the wild potato and others that were closely allied to the genus *Solanum*. However with the advent of the Irish potato and the settlement of the country, the beetle began feeding upon the cultivated plant. Beginning to spread in 1855, it rapidly extended till it was found in the Atlantic States in 1874, arriving in Nova Scotia, according to Mr. J. M. Jones, about 1882.

Little need be said as to its appearance or manner of injury,

for they are well known. Besides the usual damage done, the injuries caused by the beetles and grubs serve as infection openings for the spores of the late blight disease.

Parasitic Tachinid flies of the family Tachinidae, and predatory members of the Coccinellidae, ground beetles (Carabidae) and stink bugs (Pentatomidae) are very beneficial in the control of this beetle.

Paris green, 1 lb. to 40 gals. is the best poison to use, and it is better to use it with Bordeaux mixture. If using the Paris green in water alone, be sure to add at least 1 lb. of freshly slaked lime to prevent burning the foliage. The poison may also be dusted on the plants, as for the cabbage worm. Begin early to use the poisons and be thorough.

FLEA BEETLE (*Epitrix cucumeris*).

These little black beetles that are so quick at jumping, attack the young plants and soon riddle the leaves with holes. The same sprays used for the Colorado beetle are efficacious in killing these insects. These applications act both as food poisons and repellent sprays for those beetles that are not driven away are killed.

Miscellaneous.

TARNISHED PLANT BUG (*Lygus pratensis*):

This insect seems to feed on almost all common garden crops, small fruits and the tender shoots of fruit trees and flowering plants. Both nymphs and adults injure the plants by sucking the juices from them, thus causing small black spots, where the insect has been feeding, killing the buds and often resulting in deformities.

The adults are about one-quarter of an inch long of a brassy-brown color, marked with yellow and black, and the thorax with red. They hibernate over the winter under any suitable shelter such as boards, stones or trash on affected fields.

As this insect feeds on a great many plants, and as the adults take to the wing upon the slightest disturbance, this is a difficult pest to combat. As the nymphs suck their food, the

younger stages of the insect must be killed by applying a contact insecticide such as kerosene emulsion, diluted 1 to 6, or black leaf 40. In the early morning when the adults are stiff, great numbers of them may be caught by sweeping the plants with a net. Destroy those caught by dropping them into kerosene. As weeds and rubbish afford hibernating quarters, clean culture and the destruction of trash is important.

WIRE WORMS AND WHITE GRUBS.

The former are the young stage of beetles of the Family Elateridae or click beetles, so named from their habit of snapping their bodies into the air. They are thick-skinned, slender, smooth worms of a yellowish or brownish color, and about one inch long. They are worst on the seed and roots of corn and cereal crops, as well as in potatoes, turnips and many garden crops. As the life-cycle lasts from 3 to 5 years the insect breeds chiefly in undisturbed places such as old pastures, roadsides and waste places.

White grubs are the larvae of the June beetles that go buzzing about in the evenings of early summer. The life history is practically the same as that of the wire-worms, and hence the control measures are the same.

In the control of these pests the first necessity will be to break up all unnecessary sod and practise a short rotation of crops. Investigators have found that clover and peas seem to be immune from their attack, and as during the first year the larvae will still be feeding on the roots of the unturned sod, the following rotation gives comparatively good results:— First year, grain and clover, leaving the latter to grow up during the second year; plow after the crop is off and in the third year sow peas. However, there are cases where this does not seem to work, and in these instances a thorough fall cultivation with the disc and harrow must be practised. Unfortunately, in severe infestations, especially with wire worms, no control measure has yet been found to be completely satisfactory.

CUT WORMS.

These are the larvae of owl moths—dark grey noctur-

nal insects that are attracted to the lights. The worms are stout creatures, soft, smooth bodied, varying in color from a pale grey to almost black, and frequently spotted or striped. They attack low growing plants, cutting off the stem just at the ground. As they hide in the earth or under boards and stones during day time, they are not seen until they emerge in the evening to feed. When abundant, almost everything green and succulent is fed upon, as many truck gardeners will admit.

The eggs are laid in the summer on the grass but species differ as to the way the winter is passed, for some hibernate as young larvae, some in the egg stage, and some as pupae or adults.

Plow the fields as soon as possible after the crops are off and stir frequently to prevent the weeds springing up and attracting moths to lay their eggs.

When setting out cabbages, many gardeners make cylinders of building paper and put them around the plant, sinking them into the soil several inches. The poisoned bran mash is very effective. The formula for this preparation is as follows: Bran, 25 lbs.; Paris green, 1 lb.; Syrup, 2 qts.; lemons or oranges 3; water, about 3 gals. Mix the Paris green and bran dry, squeeze the juice of the fruit into water and chop up the pulp and peeling to fine bits and add them to the juice, stir up the syrup and water, and then, just before using, wet the bran and poison, being sure the whole mass is dampened to the consistency of wet saw-dust. This is distributed, late in the afternoon so that it will be fresh when the cut-worms come out at night.

Slugs.

Slugs frequently do considerable damage to the vegetables in small gardens, as in towns. They may be poisoned by exposing pieces of potatoes or carrots that have been soaking in a solution of arsenate of lead, made by mixing 1 lb. of the poison with four gals. of water. Often a band of lime about the plant bed will keep it free from slugs and snails, providing there are none within the ring to start with.

C. A. GOOD.

THE GROWING OF SQUASH.

For the culture of squash to get the best results, the location of the plot must be considered first. A gentle slope to the south-east is favorable providing the soil is of the right nature, clay is one of the best soils. Since the squash is a heavy feeder and a quick grower, the gardener must make plans to give the best possible chance to the short season. Taking this into consideration it is best to put the crop on land that has had either turnips or some other food crop with sod sufficiently rotted. This will help to bring the land to high cultivation and make plant food more available. Now to have plant food available the soil has got to be worked when it is in the right condition. The plow and harrow are the best instruments to bring the soil to a fine state. I would suggest a light application of stable manure worked well into the soil at this time.

Now the ground is ready for the drills; these should be run about six feet apart to allow room for the vines to run. A heavy application of a mixture of stable and pig manure may be applied to the drills. Close these in by plowing a furrow on either side. By using the hand rake for levelling off they are ready for the seed. The making of beds I do not believe in as it takes too much time, and the gardener gets no better crop. It is a good practise to sprout the seed first, for by this method you know you are planting germinating seed. This can be very easily done by putting them in damp moss and allowing them to set in a warm place for a few days. Providing the spring was late on account of frosts this is one way of forwarding the crop. The seed now being sprouted can be taken to the field and planted in the drills three feet apart, one and one-half inches deep.

In a few days the plants will be above the ground, and now is the time to start cultivating, keeping all the weeds down, and soil as loose as possible; warmth, moisture, plant food and lots of it is what the squash wants. The drills being some distance apart a harrow might be used in place of a cultivator and save some time. This cultivation must be kept up until the

vines have made such growth that there is no danger of hurting the crop.

Where market gardening is being carried on to some extent there is a system that gives excellent results, and also makes a profitable piece of ground by giving two crops. Having the ground well prepared as before stated, instead of leaving a space between each drill, put in two rows of potatoes and one of squash; do this in succession until across the plot. This method takes all the room up and at the same time you are cultivating the potatoes the squash are also being cultivated. The potatoes may be dug up early and sold at a fair figure; leaving the ground clean and in fine shape for the vines to send down their roots all through the soil, which they do to a large extent, forming a network which takes out every bit of plant food that is available.



Dairying and Poultry

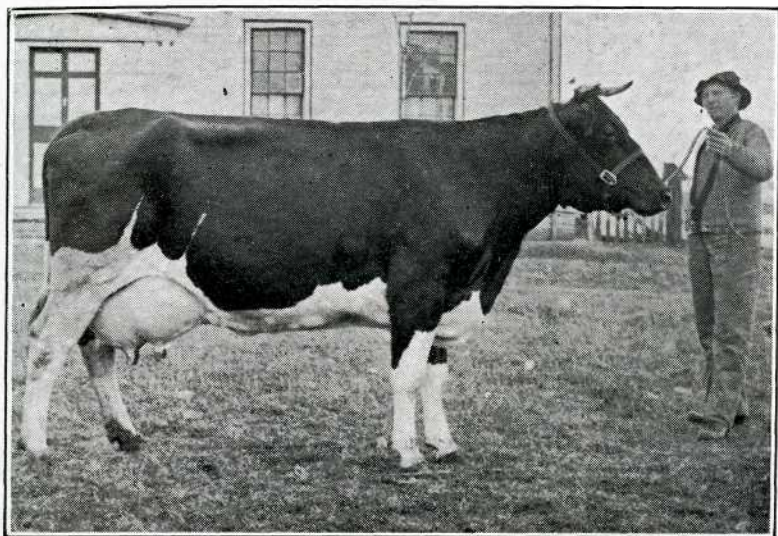
IMPROVING THE DAIRY COW.

Miss La Honda illustrates the advantage of good blood in dairy cattle. In breeding any class of live stock we find that great variations occur. Some animals are good, some are poor, others are extra good and others again are medium. Improvement can only be brought about by constantly selecting for breeding purposes the animals that have varied in the right direction. For many years the men interested in dairying, that is in producing milk from cows, have been selecting individuals that conform as closely as possible to their ideal. The Ayrshire men have developed in this way a breed that is noted for its hardiness and good milking qualities. The Guernsey and Jersey men have developed cows that give a good quantity of very rich milk; ideal butter cows. The Holstein enthusiasts have developed a big strong cow, capable of beating all competitors in pounds of milk given. The photograph of Miss La Honda shows a beautiful cow, about 1600 pounds when in working condition. This cow is capable of producing over 20,000 lbs. of milk in a year. She is the top-notch product of careful and continued selection, coupled with good feeding. Bulls from such cows as these if used in our grade dairy herds will rapidly improve the milk production of the average Nova Scotia cow. Select good blood, and feed liberally; keep at it year after year, every new bull a little better bred, a little more milk and butter in his ancestry than the one before him. Every cross a step up; so will we ever climb toward better dairying.

J. M. T.

HANDLING EGGS.

The egg exhibit put up by the Dominion Department of Agriculture is certainly one of the most interesting and instructive lessons ever prepared on the subject. The exhibit has been

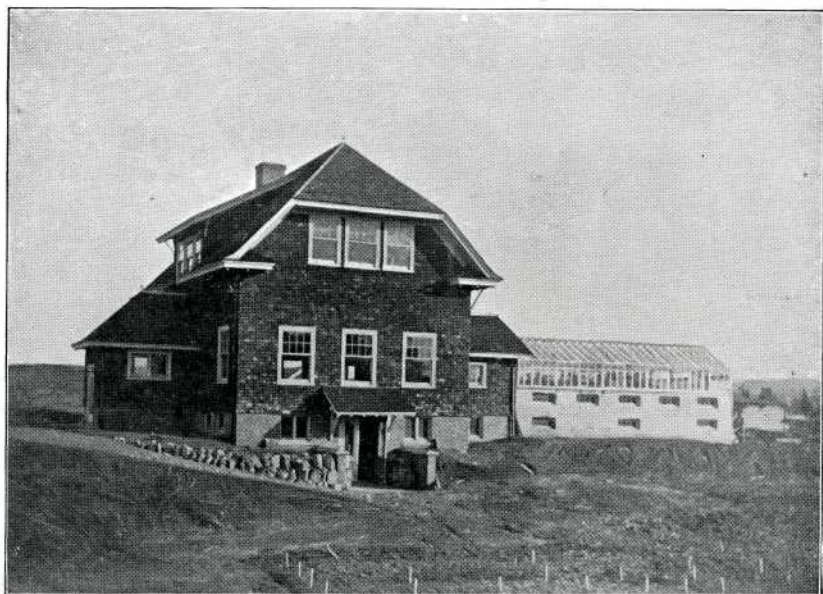


MISS LA HONDA

CANADIAN 72 HOURS TEST CHAMPION

Owned by S. Dickie & Sons, Lower Onslow, N. S.

—Courtesy of the Maritime Farmer.



HORTICULTURAL BUILDING, N. S. A. C.



TRUCK GARDEN N. S. A. C

shown in the demonstrative car, and at Amherst was one of the best exhibits put up at the Winter Fair.

The objects of this exhibit were to illustrate in as striking a manner as possible the causes contributing to the enormous waste apparent in the Canadian egg trade, the ways and means by which improvement may be effected, and to demonstrate to consumers and producers the methods of handling eggs. It consisted of two models and a candling booth. The first model shows the wrong way of handling eggs from the producer to the consumer. It illustrates a flock of nondescript poultry, an unsanitary poultry house suggestive of a general lack of management, the male bird being kept with the flock all the year round. The eggs are laid in all sorts of places and gathered irregularly, held a long time in a very high temperature and marketed when an opportunity offers. They are taken to market in an open basket exposed to air and sun and are traded for merchandise and paid on a flat rate basis. They are held by the market in anticipation of a rising market and are sometimes held in musty cellars, alongside coal oil or other materials which do not tend to improve their flavor, and the results may be observed when they are handled in the wholesale warehouses in the relatively small proportion which grade *selects*. If any of these are shipped to the retailer without being candled the result is shown in a dissatisfied customer who will not be likely to eat eggs for some time to come.

The second model shows the right way of handling the eggs. The flock of hens are pure bred, kept in a sanitary house, the male bird removed from the flock, the eggs collected frequently and regularly, kept in a cool, dry place in the house and marketed at least twice a week. They are sold on a quality basis and sent forward with the least possible delay. The result of such methods is shown in the candling room of the wholesale house where 80 per cent of the eggs grade *selects*. The retail merchant is careful to safeguard the quality of the eggs which he purchases, and while it is best that all eggs should be candled before being retailed no dissatisfaction is experienced by the

consumer when eggs from shipments of this kind are retailed without being candled.

Candling demonstrations were given in the booth. This is a very simple operation and requires but little practise and skill to be able to determine at a glance the quality of an egg without breaking the shell. It entails very little labor, and every housewife should provide herself with a candling outfit, and thus safeguard her family from many unpleasant occurrences at the breakfast table.

C. P. '16.

IMPROVE DAIRYING IN NOVA SCOTIA.

Nova Scotia with a population of over thirty persons to the square mile does not raise enough to feed her own people, why? Except in a few favored localities as Annapolis Valley and near the towns the farmers are barely making a living. Why?

The last question answers the first. Excessive grain growing in pioneer days impoverished the farms in Nova Scotia, and most of the present day farmers are not farming their land scientifically so as to conserve the plant food that is left let alone bring their farms back to former fertility. The result is small yields per acre. When a hard working farmer barely scratches a living from his farm his sons reason that they are better off without a farm and either move to town, go west, or to the United States. In many cases this means another vacant farm. Most people don't want a farm on which the previous owner barely made a living; results, smaller acreage. Add to these reasons the fact that the farmers in Nova Scotia seldom buy or sell to an advantage, and it is no mystery why the farmers do not make money.

The Nova Scotia farmers can not compete in grain growing with the western farmer, and it would not be wise for them to raise grain even if they could, as it takes too much of the essential plant food out of the soil for the value of crop. In dairy farming, however, especially if only the cream and butter are sold and the skim milk fed to calves and pigs on the farms, very

little plant food is sold. And if concentrates are bought and fed it is possible that more plant food may be returned to the soil than was taken from it. Denmark is positive proof that impoverished land can be brought back to former productivity by dairy farming.

Nova Scotia is admirably adapted for dairy farming. True, corn is a doubtful crop, but fine crops of roots, especially turnips, can be raised, and the total nutrients produced on an area of turnips compare favorably with those raised on an area of corn, even in the corn belt. Turnips cost a little more to raise, but then a root cellar costs less than a silo. If the farmers need silage a mixture of Canadian field peas, oats, and vetches makes excellent silage, (on the College farm last year they grew sixty tons on five acres). Our damp climate makes good pastures, the cool summers keep down insect pests on the cows, and best of all we have a home market for more than we produce. If our production should overtake home consumption we have the British market and, situated as we are on the ocean, cheap water transportation to it.

With all these advantages dairy farmers can not make good if they don't get good cows. No cow should be kept for dairy purposes that doesn't produce 6000 lbs. of milk a year. The average Nova Scotian cow does not get enough to eat, and if she does she rarely gets a balanced ration. A cow needs so much to keep her alive before she can produce anything. If she only gets enough to keep her alive, she makes nothing for the farmer, and he is out the expense of feeding her. Whereas, if he feeds her properly she might produce enough to pay for her feed and care, and yield the farmer a nice profit.

A farmer may raise good crops, have good cows, feed them properly and still not make money; perhaps he doesn't get enough for his produce, perhaps it costs him too much to sell his produce.

Creameries get better prices than the farmer. First: because their produce is uniform in quality. Second: because handling the large amount they do can keep a regular sales

agent, so the advantage of co-operative creameries can easily be seen. True, there are places where co-operative creameries are not practical, but if the farmers in these places made good butter, (and it should be a crime to make any other kind) and had co-operative societies to sell for them they would obtain the same results.

Besides selling at a good price the farmers must buy cheap, here again co-operative societies would help, cutting out the middleman and enabling the farmer to buy the fertilizer and concentrates at first cost.

To make a success of dairy farming in Nova Scotia the farmers must raise more roots and green feed, farm so as to conserve fertility, keep better cows, breed them better, feed them better, and weed them better. They must co-operate in buying and selling; when they do so, and not till then, will the Nova Scotia farmers come into their own.

J. McK. '15.





Alumni



GEORGE WESLEY COCHRANE, '13.

It was with deep sorrow that the classmates and friends of G. W. Cochrane, '13, heard of his untimely death in December last. While studying at MacDonald College he was taken ill, and with mercifully brief suffering died shortly after his parents had been summoned from Upper Dorchester, N. B.


Mr. Cochrane was president of his class, and as such won the sincere regard and respect of the whole student body.

An earnest student, a splendid worker and a genuine good fellow, in Mr. Cochrane our College has lost one of her best representatives.

To his parents we extend our heartfelt sympathy in their affliction.



Athletics



A FEW POINTERS ON TRAINING.

(From O. A. C. Review.)

WHAT TO EAT:

1.—*Avoid:* (1) Indigestible foods: pork, fat meats, boiled cabbage, all food fried in grease, pastry, crackers, hot bread and biscuits, dough puddings, rich cakes, confections, candy, cheese, pickles, vinegar, soda water.

(2) Injurious foods: stimulants and narcotics, tobacco and alcoholic drinks, tea and coffee, pepper and other spices, catsup, Worcester sauces and other condiments.

II. *Choose your diet from the following.* Lean beef, mutton, fowl, roasted or boiled vegetables, eggs, boiled, poached or scrambled, whole wheat or graham bread, milk, cocoa, chocolate and water. For dessert eat fresh fruits, canned peaches or pears (no preserves or jam). Eat light breakfast of cereal and fruit, if convenient let the hearty meal come at midday. Eat regularly. Do not eat between meals.

CARE OF THE BODY:

1. Sleep eight hours every night, ten if possible.
2. Take cold sponge bath or plunge every morning on arising.
3. Insist on fresh air at all times.
4. Take exercise regularly each day until tired but not exhausted.

5. Avoid exercise in the day preceding any athletic contest; allow your muscles to become limber and save your energy.

COLLEGE VERSUS CRIPPLES.

This widely advertised game came off on Wednesday night Dec. 16th. The audience of innumerable numbers swarmed the seats like flies on a lump of sugar. After fighting 15 minutes to get through the crowds the players reached the field, squared off and went into the scrimmage. The Cripples looked to your scribe rather husky but the College boys slipped by them for 5 field goals in the first half. The Cripples aided by a rest, smiles from the audience and oranges entered the fray again like Greeks. The result of this grand rush was but one goal shot by Longdon. The College again attacked the Cripples and virtually tearing them to pieces secured two field shots and one goal. The score ending was 15-2 in favor of College.

W. F.

SOME HINTS ON BOXING.

(O. A. C. Review.)

Size your opponent up quickly and carefully, his weight, his length of reach, speed and skill. Try a few feints at him to get at his tactics, and don't underestimate him or you may come to grief. Expose yourself as little as possible, except for purposes of deception. Know where you are at all times and also where your opponent is. Keep every eye and instinct actively alert. Alter your tactics occasionally that he may not size you up, and never repeat the same blow consecutively. Try different styles of both offensive and defensive tactics. Use all your reach, and strike each blow with all your weight behind it, but do not use it unless necessary. Hit and get away or hit and clinch; do not strike and miss or your opponent will catch you if he is a skilled man. If you are easily his superior be merciful and do not butcher him, it is most unsportsmanlike. If

you are his inferior, keep smiling, and do not stop trying till the bell rings, the quick tempered fellow must learn self-control in the mastery of the art or he will never be a good boxer. A repeated stinging blow on the nose, which makes both eyes water is good medicine for an ill-temper. Boxing at a college should exhibit the spirit of sportsmanship, and some of the spirit of friendliness which exists among the students. When the ring is entered, friendship and sportsmanship are alike often forgotten and an attempt is made to incapacitate the other man that he may not use his science. When boxing reaches this stage, it is no longer boxing but fighting.

COLLEGE VS. CUBS—2-0.

On Friday, the 15th, we played our second league game. The College team was on the floor at sharp eight o'clock and play started sharp on time. Shortly after the referee's whistle the College scored a goal and the referee gave the game to the college as not one single man of the opposing team was on the floor.

ATHLETIC NOTES.

All college boys are asked to refrain from bringing more than two girls to the games because of the difficulty of finding seating capacity.

The college line up has undergone a slight change since the last issue. Mr. Good, assistant to Prof. Brittain, has taken his place as forward on the college team. The boys of the college have been greatly pleased by the manner in which Mr. Good has supported our activities, and now as he takes this prominent place in our Athletics he will be welcomed as one of the "boys."

All boys who cannot afford to attend Basket-ball games are requested to give their names to Mr. Congdon. He will give the same passes on sufficient reasons. Those who are unable to secure a pass will be summarily dealt with by the Finance Committee.

he handled his forces. The Committee consisted of Pres. Notting, Miss Stanford, Messrs. Schurman, Redmond, Holman, Ells, Pike, Porrier and Armstrong.

BIGGER CROPS FOR 1915.

Among the many who received inspiration from this Short Course pass word were the A. C. Seniors. They immediately set out upon the development of arboreal adornments on their upper lips. The results of some of the experiments carried out along this line were amazing, and they deserve special notice. It cannot be said that the experiments were carried on under average conditions but the results show very strikingly the effects of individuality and environment.

The result obtained on plot No. 1 by A. S. F. turned out to be white. The cause of this is attributed to the unsettled state of mind of the experimenter, due to his worrying over his studies. Diamond Dyes were suggested as a remedy.

Sunny Jim developed a most luxuriant growth of a copper hue. It has been learned that he applied a top-dressing composed of three parts lard and two parts chocolate fudge. He urges evening cultivation, his plot being located in the West End.

The Editor-in-chief has been working faithfully for three weeks but as yet there are no apparent signs of success. He thinks the seed failed to germinate.

D. K. F. reports excellent results as a cover crop. In fact the growth was so luxuriant that he harvested two crops in one month. This experimenter has been at it for some months.

Plot No. 4 under the charge of Bunnie developed a sparse but exceedingly long growth somewhat in the nature of vibrissae. He reports good soil but a low percentage of germination.

A. E. H. developed a sort of sword grass. He reports

that the crop was harvested and used as files and rasps on the farm.

The best results were obtained by an English experimenter. Does anybody wish to laugh?

P. S.—It may be interesting to note the results obtained by E. S. N. on plot No. 15. He arose one morning to find that the right half had developed a black species while the left half was red.

THE FUMIGATED BAND.

An Antiseptic Baby and a Prophylactic Pup
Were playing in a garden, when a Bunny gamboled up.
They looked upon the creature with a loathing undisguised,
For he wasn't disinfectd, and he wasn't Pasteurized.

They said he was a Microbe, and a Hotbed of Disease,
They steamed him in a vapor bath of a thousand odd degrees,
They froze him in a freezer that was cold as banished hope,
They scrubbed him with permanganate and carbolated soap.

With sulphuretted hydrogen they bathed his wiggly ears,
They clipped his frisky whiskers with a pair of hard-boiled
shears,
They donned their rubber mittens when they took him by the
hand,
And elected him a member of the fumigated band.

Nowadays there are no Microbes in that garden where they
play,
For they bathe in pure formaldehyde a dozen times a day;
They take their daily ration from a hygienic cup,
The Baby, and the Bunny, and the Prophylactic Pup.



HAY-SEEDS.

[A reason from botany why she didn't go to the show.—Gymnoaskme.

Short Course Student.—How can I tell who the Seniors are are?

Junior—A Senior's upper lip is down.

Prof. L-n-ry—Mr. P-i-e-r, What is your opinion of women as poultry keepers?

Mr. P-i-e-r—I never had much faith in women anyway.

The P. N. C. girls went to the photographer to have a picture taken of the basket-ball team. They were much chagrined when they found out that they had really cracked the lens. That's one on you, P. N. C. Not much chance for "domestic happiness" if that's what you're going to do.

El-r-d-g-e, watching Prof. Landry pick a chicken "Do you pull the hair off the necks, Professor."

S-tt-on—Say Mac, what did you get for the answer of that question.

M-c-ul-y (absent mindedly) 252 W.

Definition of a Frog.—Junior Zoology paper.

A frog is a big green bug covered with warts; he's always sitting down behind and standing up in front.



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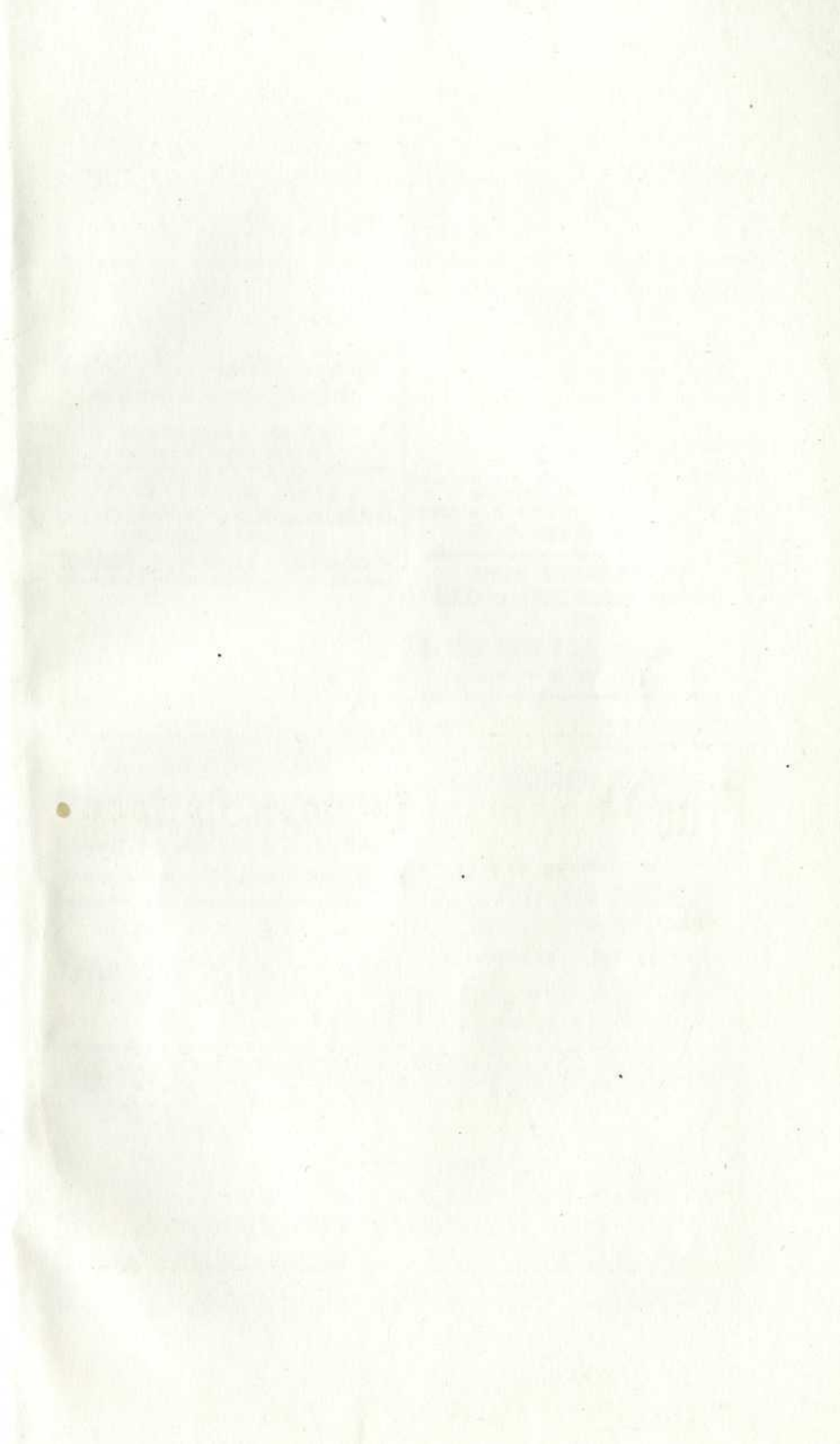
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