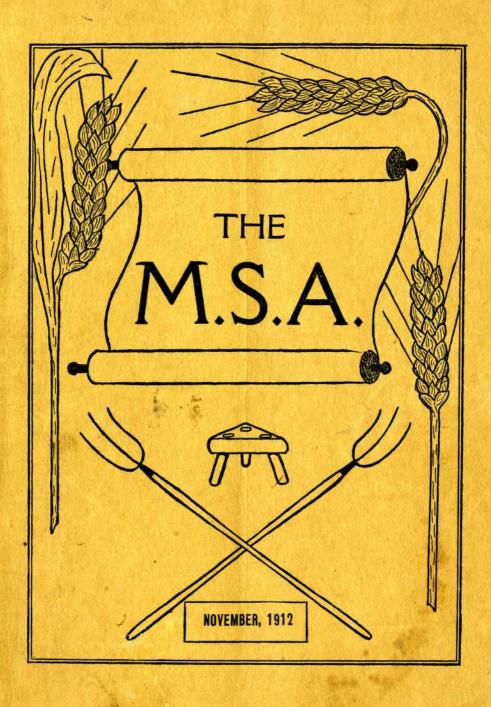
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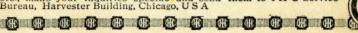
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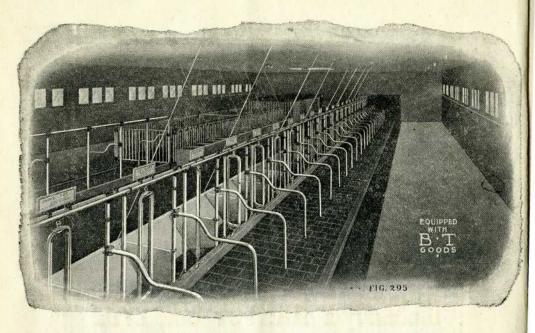
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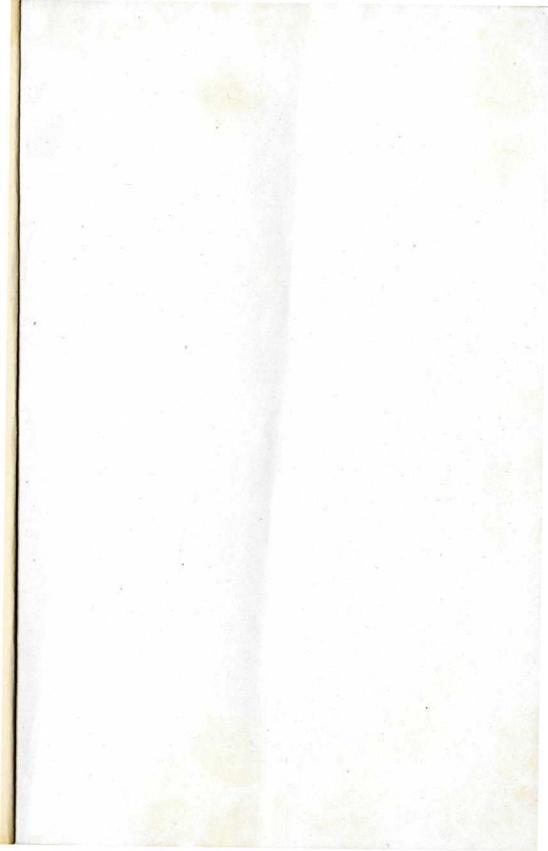
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L. STEVENSON, B. S. A.
Professor of Agriculture and Animal Husbandry

### MARITIME STUDENTS' AGRICULTURIST

Vol. V. Truro, N. S., December, 1912

No. 1

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#### EDITORIALS.

Our College has been growing steadily from year to year until at the present time she has over one hundred students attending the regular course. Both Senior and Junior Classes are the largest the College has ever boasted of, and we expect to have an extra large short course, even larger than that of last year, which was the largest Short Course ever held in the Dominion. The magazine extends a hearty welcome to all those who have come into our midst for the first time and wishes them every possible success during the coming year.

Since last Spring many changes have taken place on the College premises. The main building has been doubled giving us a much larger Assembly Hall, large rooms for the seed department, students cloak rooms and a new library and reading room. The old Assembly Hall has been turned into a laboratory for Biological studies, etc., A large Horticultural building has also been added with greenhouses attached. These buildings, however, are not quite completed as yet, but if all is well will be in working order by Christmas. A large horse barn with modern fittings, etc., has been erected, giving ample room for all the horses kept on the farm.

Not only has our equipment been enlarged but we have

several changes in the staff. Professor E. S. Archibald, B.S.A., who for several years was Professor of Agriculture and Animal Husbandry, has been appointed Dominion Animal Husbandman, and will have charge of all livestock owned by the Experimental Farms, etc., throughout the Dominion. We sincerely hope that Professor Archibald's duties will call him to Truro during the coming winter.

Professor L. Stevenson, B.S. A., succeeds Professor Archibald as Professor of Agriculture and Animal Husbandry. Professor Stevenson is the son of R. S. Stevenson, Ancaster, Ont., well known throughout the Dominion as one of the best farmers in that Province, especially as a breeder of Holsteins, he is also a noted Judge of Dairy Cattle throughout America, having judged on several occasions at Maritime Fairs. For fifteen years before entering the O. A. C., Professor Stevenson managed his father's farm and in this way acquired a practical experience invaluable to him in his present work. During this time he occupied prominent positions in Local Exhibitions and Agricultural Societies. He entered Guelph some four years ago and graduated in the Spring of 1912 with high honors in Agriculture.

Professor R. Matheson, M. Sc.A., Ph. D., (Cornell University) has been appointed Professor of Zoology and Provincial Entomologist. He is a native of Limestone, Pictou Co., N. S., and has received a good High School education in that province. He also taught in the common schools. He then entered the School of Agriculture under the principalship of Professor Smith, and under his excellent tuition prepared for entrance to Cornell, where he took his Bachelors, Masters and Doctors degrees. After taking his Master Degree he was for two years State Entomologist in South Dakota. He then returned to Cornell and took his Doctor's degree with high honors, after which he was appointed to the staff of that University. At the time of his present appointment he was Assistant Professor of Biology.

W. A. McKay, Dairy Superintendent for Nova Scotia, and Lecturer in Dairying came to the province from Ontario, to take charge of the Scotsburn Creamery, which up to that time had been conducted at a considerable loss. Under his

supervision the production of the Creamery was increased from 32,000 lbs. to 167,000 lbs of butter yearly, and so developed it. into the most successful creamery in the Maritime Provinces. In addition to his experience as a manager of creameries both in Ontario and further West, he is a graduate of the Ontario Dairy School at Guelph. In casting about for a man to act as Dairy Superintendent for the Province the Principal wanted a man who had been through just such experiences as Mr. Mc-Kay. His duties in future will be to develop the Cream and Cheese factories already under way and also to organize new ones, he will also lecture on Dairying at the College.

Miss M. P. Blair, who for seven years was the efficient and obliging secretary and stenographer for the College has been succeeded by Miss M. D. Caldwell.

The College wishes to convey to the churches and Normal College, through this magazine its hearty and grateful appreciation of the kindly interest and painstaking work involved in the series of socials and Institutes to which we have been so kindly invited. We one and all congratulate both the churches and Normal College upon making us feel more at home in Truro than we would even in our native towns and villages.

The magazine is indebted to Messrs. Dustan and Spicer for the cover design and headings respectively. We should be very glad to receive suitable drawings for the other headings from any student.

It is the desire of the management to greatly increase the circulation of our magazine during the coming year, to do this we must have the co-operation of every student. Formerly it has been left too much in the hands of the staff. This year let every student do his utmost to get as many subscriptions as possible. A cash prize of \$2.00 has been offered by the staff for the student getting the most subscriptions, over ten, before Jan. 10th. This does not include subscriptions from students.

In this issue will be found photographs of Professor Stevenson and Dr. Matheson, we regret that we are unable to publish in this issue a photograph of Mr. McKay.

#### THE CALL OF THE LAND.

There is, in our maritime provinces, a universal movement of the population away from the country toward the towns and cities, both in our own land and in the great West. To the ordinary observer this is not so marked, but the person who studies the situation cannot fail to see that there is a mighty tide draining our country villages of its youth, to fill the call for men in the industrial centres. This movement is not localized, but universal throughout Nova Scotia, New Brunswick, Prince Edward Island, Quebec and Ontario. West of Ontario the country districts are being filled up but even there the cities are growing at a much greater rate than the country. Taking the Dominion as a whole we find that the total rural population in the ten years 1901-1911 increased only 17.16 per cent., while the urban population increased 62.25 per cent., while if we consider the maritime provinces separately the following startling facts are brought to our notice:

Nova Scotia lost 23,981 rural and gained 56,745 urban.

New Brunswick lost 1,493 rural, and gained 22,262 urban.

Prince Edward Island lost 9,546 rural, and gained 15 urban.

Quebec gained 39,931 rural, and gained 313,863 urban. Ontario lost 52,184 rural and gained 392,511 urban.

These startling figures may well make us pause to consider the reasons for such an exodus from the ranks of the producers of the world's food and the means of staying it. One of the first of these reasons is a certain lack of respect for the calling of the farmer both by himself and by the professional man. This we admit is being overcome, but strange to say the professional men seem to be the first to recognize the farmers right to respect. The farmer himself does not respect his calling as he should. His is the most ancient, honorable and important work which is done in the world to-day. All industrial, commercial and professional life depends directly upon the farmer, yet he calls himself "only an old hayseed" and goes out to hoe his corn saying: "If only I had more education I would not be doing this." Such a spirit among the farmers of a district

cannot fail to debase their calling in the eyes of the young men, who get the impression that on the farm there is room only for the uneducated, and unprogressive of the population, and that out in the big city are countless opportunities leading toward wealth and ease.

Another reason why the country districts are being drained to fill the cities and towns can be found in our present edu-The whole course in our public high schools cational system. tends towards the universities. When the boy finishes the public school course he, as a matter of fact, goes to high school and from thence to the various colleges and so out into professional life. If we could in the higher grades of this public school and in the high schools teach the principles of agricultural science, and by such a course give a different impression of agricultural pursuit, it would bring the matter before the boys in a new light. They would realize that there is more to farming than just planting a crop, fighting weeds, and hoping for a return for their labor. What we require is to show that the farmer is one of the greatest factors in the development of our country, that the young man with ambitions which extend farther than merely to the "ego" may find ample scope for them back on the land. Such a policy would tend to direct in increasing numbers, the young men toward the agricultural colleges, and thence back to the farm.

But we must consider the lack of progressiveness of certain farmers as a reason for the depleting of our population. It is a regrettable fact that there are many farmers who are content to move in the old ruts, and whose avowed policy is to leave well enough alone. We find them in every community sneering at book farming, laughing at agricultural colleges, etc., as a way for governments to expend money. Such a man cannot tend to elevate his calling in the eyes of the boys. He follows no system of stock improvement but goes on breeding indiscriminately and so always has around him a bunch of poor cattle which are an item of expense. His dairy cows instead of being a source of revenue to him run up to a large board bill every year, which he must meet from some other part of the farm, he takes no pride in his team which looks rough and out of condition, he is in fact, a blot on his calling. Under

conditions such as these, the young men are glad enough to get away from the farm to som, more free and easy life such as they imagine they will find in the town.

The more we consider this matter, the more we are impressed with the short sightedness of the policy of the farmers' sons in leaving the country for the towns. There are in many sections of Nova Scotia good farms deserted, while the young men from these, work in the mills and foundries of the neighboring towns. These men get a good daily wage, but if they were on their farms they could in a short time get greater returns for pleasanter work. Being, as they are, close to good markets they might, by properly developing their farms, get large returns in almost any branch of agriculture they may care to take up.

Truly this is a dismal picture we have drawn of the life of the farmer, but there is another side. Let us look at it and see the farmer as he really is. The farmer of to-day is fast becoming the man of the hour. There was a time when the fool of the family became the farmer. Those who showed the greatest ability were educated and started in professional life and the rest were obliged to farm for a living, but to-day the farmer requires to be wide awake, he must work with his brain as well as with his hands, if he would stay in the race with his progressive neighbors.

And then there is the freedom of the farmer's life. He is the master of his own time, the work he does is for himself not for some employer whose main object is, to get the most work for the least pay. He is land owner, capitalist and laborer all in one and the very complexity of his interests give him a broader outlook than is obtained by the business or professional man.

The successful farmers of to-day are looked up to. We find them in our parliaments, holding high offices in the administration of government, and the demand for farmers in the various agricultural departments is becoming greater and greater. Agriculture as a profession is becoming more and more important in the life of the Dominion. It is taking first place in the exhibitions and fairs; agricultural journals are becoming more numerous and the farmer is fast coming into his own.

And why should he not get his due recognition? He is the man who feeds and clothes the world. Should the farmer cease to produce, all industrial life must of necessity cease. Practically all the sciences have a direct bearing upon the farmer. Chemistry, Physics, Astronomy, Vetroiology all affect the farmer in varying degrees, and to a large extent the interests of the farmer form the basis of advancement in these sciences.

But let us consider also the opportunities for advancement open to the farmer. In the field of stock raising and breeding there is unlimited scope for the exercise of genius and good business principles, with more than gratifying returns. In the field of husbandry the man who can make two blades of grass grow where but one grew before, is doing a work both for himself and mankind in general, and doing it with good profit also. The demands for the products of the dairy is increasing at an enormous rate, and the man who has a herd of good cows need not worry about markets failing or any difficulty in disposing of his products at good profits, while in those sections of the country where orcharding is practicable the opportunities are unlimited. Everywhere the demand for food stuffs of all kinds is on the increase and anyone possessing ability may, by applying himself get excellent returns for his labor.

Nor yet are the pleasures of the country life to be ignored. The farmers, as a class, are the healthiest men in the world health is no mean asset to any man. It increases his ability to work and make work a pleasure. Then there is the joy of the outdoors. There is born in every one of us the love of the outdoor air, the invigorating sun with the refreshing breeze all of which are free to the farmer. Coupled with these are many of the pleasures of town life. In the best districts we find as much refinement as can be found in any town and the pleasures of the theatre, etc., are within the reach of nearly all.

The call of the land is getting more and more insistent. What the maritime provinces need is more and better farmers. Men who have faith in their vocation, who believe in the methods of intrusive agriculture and who apply their belief to actual conditions. Then will these provinces by the sea begin to come into their own and to take their proper places in this great Dominion.

H. E. W. '13.

#### MARITIME WINTER FAIR.

The Maritime Winter Fair will be formally opened at Amherst, on December second, by Lieut. Governor Wood, of New Brunswick. The opening meeting will be held as usual on Monday evening, December 2. Among the speakers who will take part at this gathering will be Premier Fleming, of New Brunswick, Premier Mathewson, of Prince Edward Island, Hon. O. T. Daniels, Attorney-General for Nova Scotia, Hon. E. H. Armstrong, Minister of Public Works of Nova Scotia and a number of others.

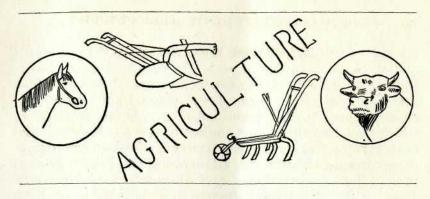
Efforts have been made to have Professor C. C. James and Professor Robertson attend the coming Fair.

The officials of the Fair predict a greater success this year. Larger entries are expected, lecturers at the evening meetings will be interesting and instructive and the whole fairing eneral promises to add more agricultural interest for the benefit of the people of our Maritime Provinces.

#### DO YOUR LEVEL BEST.

Do your level best
Always, everywhere,
Never mind what others do,
You act fair and square.
Duty's call is urgent
And life's no empty jest
Pull yourself together
And do your level best.

Do your level best
Of indolence beware
Yours is now the springtime,
Improve the season rare.
Use each precious moment
All trifling ways detest
Pull yourself together
And do your level best.



#### RAISE YOUR OWN SEED.

For years past the leading agriculturists of our Province have been striving by both precept and example to induce the farmers to raise their own seed grain and potatoes. A small percentage of our farmers have benefitted by this timely advice, but they are the exception to the rule, and it will be found that the large majority throughout our Province depend on P. E. Island, Ontario, and the Prairie Provinces for their seed grain. This should not be so. Surely a country with such agricultural possibilities as Nova Scotia has, should not be dependent to a greater or lesser extent on the tender mercies of any country for such an important commodity as its seed grain, especially when we can raise equally good, and perhaps better, grain than we can buy. It shows a lack of interest on the part of the farmers in their chosen profession.

The value of sowing none but home-grown or Government inspected seed was perhaps never brought so sternly to the notice of the farmers of Nova Scotia as it was this year. The Government-inspected seed could not be had; many had no home-grown seed, so they had to take what they could get and run the risk, which resulted disastrously for the harvests and pockets of many of them. Hundreds of farmers in the counties of Colchester, Pictou and Antigonish were defrauded by the notorious "Anchor Elevator" oats. These oats had been kilndried at the Western elevator to prevent them from heating and musting and were thus rendered worthless for seed. Sold

originally for feed, they were brought East by the train-load and represented as No. 1 seed. Farmers bought and sowed them in good faith. To an experienced eye they looked like first-class seed; they were plump, of good size, clean, and weighed heavy to the bushel, but they lacked germ vitality, which the farmers found out to their sorrow and the depletion of their pockets when they had been sowed long enough to produce results. In some cases the farmers had their money refunded, but that did not help their ruined harvest any. But this is not the only instance in which sowing home-grown seed would have paid better. Every year there is being brought into the country grain infested with weed-seeds which. when sown, produce the result too often seen in the grain fields of our Province. The writer took the trouble one day this summer to pick over a fair-sized handful of oats which had been bought for feed and represented as double-screened grain. that one handful there were found 203 weed-seeds, 133 seeds of other grains, a large percentage of unfilled hulls, and a considerable amount of worthless material, such as chaff, damaged grain, etc. Of the 203 weed seeds, 52 were those of noxious weeds, such as Rib Grass, Curled Dock, Catch-Flv, Field Bind-Weed, and others. Some of the above mentioned oats run through the fanners and compared with home-grown seed, were found to contain about ten times as many impurities as the home-grown seed. Numerous farmers in the writer's locality bought these oats and sowed them without cleaning them, and the reader can imagine the result. The instances I have cited are only two of many. Every year the farmers are being imposed on, and they have themselves to blame. Rather than raise and clean their seed, or buy only that which has been Government-inspected, they buy at random, and get such worthless stuff as has been exposed in the former part of this article. Every farmer should have a copy of the "Seed Commissioner's Report," which can be had for the asking from the Seed Branch, Dept. of Agriculture, Ottawa, All grain should be cleaned in a reliable fanning-mill, and treated for smut prevention with the formaldehyde treatment.

It is not only the raising of our own seed grain that will pay us. Present prices amply justify the raising of our own timothy seed. This has been especially noticeable during the past season, and it is to be hoped that it will continue. The importation into the Provinces of seed potatoes is not so extensive, but that it is carried on to a certain extent is seen in the introduction from Europe this year of "the deadly Potato Canker", a disease which threatens the potato crop with serious results unless the farmers co-operate heartily with the Department of Agriculture in the prompt effort it is making to stamp out the scourge. Raise your own seed and it will pay you every time.

—J. G. ARCHIBALD, '13.

#### PRESS BULLETIN, No. 63.

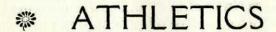
# PULPWOOD REPORT, 1911.—WHAT CANADA COULD DO WITH WOOD SHE EXPORTS.

Fifty-six per cent. of the pulpwood cut in Canada during the year 1911 was exported to the United States, This is the fact shown by statistics collected by the Forestry Branch of the Department of the Interior.

The total quantity of pulpwood cut in Canada during 1911 was 1,520,227 cords, while the remaining forty-four per cent. (672,288 cords) was manufactured in Canada.

The value of this pulpwood was \$5,340,592 (an average of \$6.29 per cord.) Had the wood been retained in Canada and manufactured here, it is estimated that the value would have been increased to about \$15,000,000.

Had Canada manufactured into wood-pulp all the pulp wood she produced, she could have had enough to supply twenty-two mills of the average size of those operating in Canada, instead of the thirty-four she now has. Quebec could have supplied six per cent. more mills than she is now doing, and New Brunswick could have doubled the number of her mills.







#### BASKET BALL AND HOCKEY

We are glad to report that the town basket ball league is now fully organized and the open game will be played shortly after this issue goes to press. The teams competing are as follows: Y. M. C. A., Colchester County Academy, Normal College, Bankers and N. S. A. C. Our team is getting in some stiff practice under the supervision of Capt. Peterson and will give the best of them a hard run for first place.

Hockey is being talked already and the college plans to enter her team in one of the town leagues. The rink is being fixed up for another season's sport and hours for practice will be arranged for, as soon as the frost comes. Many of our last year's players are with us again and we hope to be able to place on the ice a bunch that will be hard to beat.

I am glad to report that the boys seem to be entering more keenly into the spirit of sport than they did previously. The practices are well attended and a good quality of clean sport is put up. Let us all do our best and try to make this coming year a record one.

Our officers for the Athletic Association have been elected for the coming year and are as follows:

President—Alan G. Dustan. Sec.-Treas—Alfred S. Hunt.

#### N. S. A. C. A. A.

The opening meeting of the Athletic Association was held on Monday, Nov. 11th, with a large bunch in attendance. It was decided to form a basket ball team, and to enter the league, which was being formed in the town.

The Y. M. C. A. gymnasium was selected as a suitable place for practise—since our gym. is not yet completed—and steps were taken to secure suitable hours in which the boys could grind themselves into form. A nominal fee was levied on each member of the Association, which we hope will be paid with the usual joy.

Next issue the leagues will all be in full swing and the report for Athletics will be a little more weighty than it is this month.

A. G. D. '13.



### HORTICULTURE



# THE BROWN TAILED MOTH IN THE MARITIME PROVINCES.

The attention of the farmers and fruit growers of the Maritime Provinces has been drawn by the presence of a foreign moth which threatens to de defoliate our orchards, ornamental trees, as well as some of our valuable forest trees, as it is doing in the country across the border.

This much-to-be-dreaded moth is the "Brown-Tailed Moth" which was accidentally brought to Massachusetts some twenty years ago.

The Brown -Tailed Moth was unrecognized for about five years after its introduction into the New England States. Soon after our American friends found that they were harboring an enemy they were earnestly employed at fighting the pest.

The first nest of Brown-Tailed Moth larvae found in Nova Scotia was reported in April, 1907. The Moth would have made great headway in the following summer, but the Nova Scotians were warned of their danger. Organized search parties were soon at work, destroying the nests containing the hybernating larvae. The school children were also a great aid in keeping this pest in check.

There has been a great amount of work carried on to exterminate this moth in our Province since then as there was not much time to work in the spring of 1907 and all nests could not be destroyed before the larvae deserted their nest.

Our college has been a very important factor in the controlling of this much-to-be-dreaded insect, as the Professor of Biology has given much time training the students how to recognize this moth and a great many more troublesome insects. His work has not been in vain, as several graduates have taken the field against this formidable enemy and have been very

successful. The people living in the infested region have also helped to fight this insect by exercising great care in destroying all the nests they could find.

Great credit is due our Principal and Professor Smith, who were the first to start the good work in Nova Scotia.

Perhaps a description of this insect in its different forms would be useful as well as beneficial.

The eggs are laid on the under side of the leaf, usually near the end of a branch or on a spur. Each female usually deposits about 250 eggs. The young caterpillars appear in about two weeks and commence feeding on the soft pulp of the leaves. They soon start the construction of a nest to protect them from the influence of the weather during the winter months. These nests are constructed of the skeletons of one or more leave, fastened to gether by a web. They are usually firmly attached to the end of a branch or twig and can be easily detected after the leaves fall.

Some of our most useful insects (parasites of the Tussock Moth) also pass the winter in nests made of the whole leaves loosely fastened together by a web. These parasites must not be destroyed for Brown Tailed Moths.

The inmates of these nests are not hairy and have no more than three pairs of legs. These parasites are maggot-like in appearance.

The larvae of the Brown-Tailed Moth emerge from their winter quarters as soon as the buds begin to open in the spring. They vary in color according to their age. The color of the young larvae is rusty brown. They are cylindrical in form. As the caterpillars grow older two broken white lines appear along the back. Beside this is a coral red spot situated on the sixth and seventh segments; this is one of the characteristics of the family.

The caterpillar is about one and one-half inches long when its growth is complete.

They drop from the trees readily in the spring on teams or animals, this is the chief means of their distribution.

Under favorable conditions they pupate about the last of June. It is not easily detected in this form for the leaves which envelope the pupa are so well arranged that it is not noticeable. They stay in the pupa form about two weeks depending upon the weather, when they emerge in the emigo form.

The Emigo or perfect insects are pure white in color except a border on the front edge and an outer lower border of the first pair of wings may be gray or black, and the dorsal part of the abdomen is densely covered with long golden brown hairs.

They are about one and one-half inches from tip to tip of wing when the wings are spread. The body is about three-quarters of an inch long.

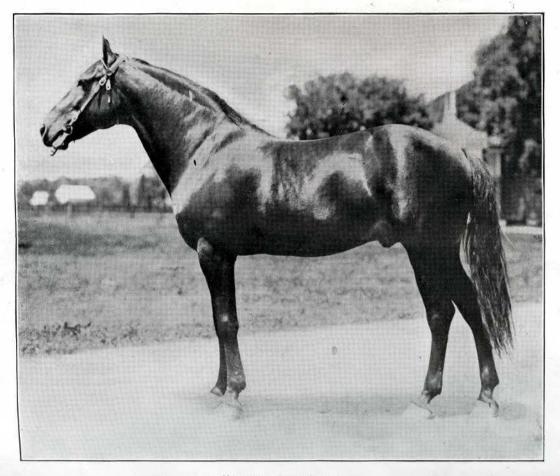
The male moth is much slenderer and its antennae are much larger than the female. Neither sex fly about to any extent during the daytime.

Means of controlling the Brown-Tailed Moth. The pupa and egg are so difficult to find that they cannot easily be destroyed. The adult moths are not easily captured and no effective means has yet been discovered to destroy them in this stage of life.

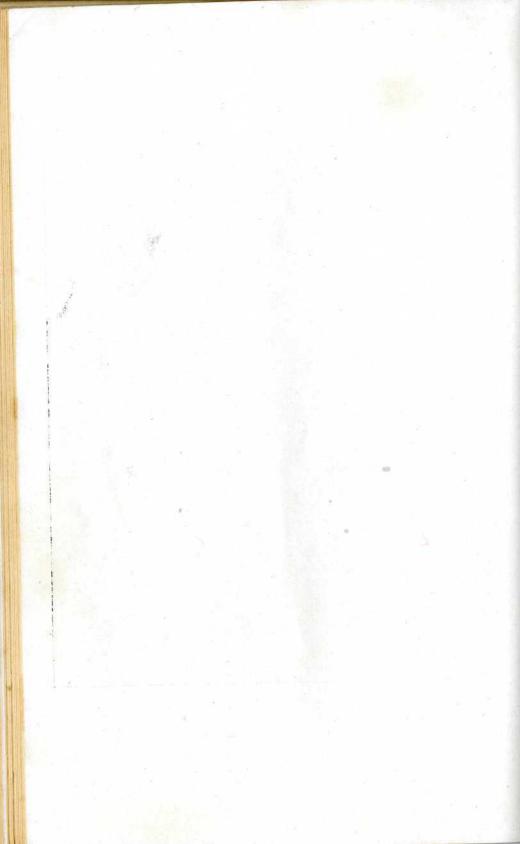
The cheapest and most effective method of controlling the Brown-Tailed Moth is to remove the nests after the leaves fall. The following spray mixture is also recommended:

"Dissolve three and one-half pounds of lead acetate in two gallons of water, and one and one-half pounds of sodium arsenate in one gallon of water, then mix, and add to the Bordeaux solution just before spraying. The separate salts should never be added to the Bordeaux, but only after they have been mixed."

We should remember that neglect to pick the nests of the hibernating larvae from the trees and bushes where they may be found means a serious injury to our resources. Therefore every Nova Scotian should aid their country by doing this small service at least.



"BINGEN" 2.06 1-4
The Most Successful Trotting Sire, being sire of Achille 2.151-4 owned at the College Farm



#### SAN JOSE SCALE.

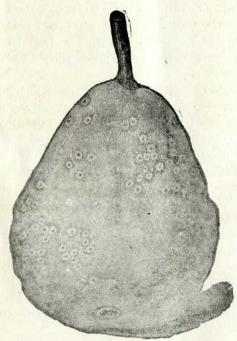
The biological department would hardly be complete without an article treating of this serious pest which has been discovered in our Annapolis Valley so recently, and which threatens destruction to every infested district.

San Jose Scale was introduced into the United States from China in 1870, coming over on some rose bushes purchased by a rose fancier of the former country. These roses were of a rare variety and slips were eagerly sought after and were distributed to all parts of the country. Thus, the pest was spread even before it was known that the original plants were diseased.

Scale has been known to exist in Ontario for about fifteen years and the nurseries have been in the habit of fumigating their output before it was scattered throughout the country. Previously, this scale was unknown to Nova Scotia, but this Spring it was discovered in the vicinity of Aylesford, and upon a further search being made, it was found that the whole valley from end to end was harboring this pest and had been doing so for the last three years. The government at once organized a party of trained men who made a house to hous, canvass throughout the apple growing sections of the province and over five hundred trees infested with live scale were discovered and destroyed—showing that, unless this insect was carefully watched and properly treated, the Valley would soon be under its control. At present the scale is confined to trees of the last three years planting and it is the aim of the government to stamp it out before it spreads to the larger trees.

The life history of the San Jose scale is as follows: "Only the partly grown insects are wintered over, and as soon as the warm weather comes they start to grow, very rapidly—the males reaching maturity a few days before the females. The males emerge from their oval scales and die soon after pining with the females. The females have a perfectly round scale and unlike the meals they never leave it. They produce living young and a single female has been known to produce in one season over three billion descendants. The young are minute in structure and have oval bodies with six legs and two feelers.

After moving about the surface of the tree for a few hours they insert their beaks into the bark and remain fixed for life, if females, and if males, until they reach their full development. The males have wings and are able to fly short distances, while the females rely on other agents for their means of transportation. The male insect takes about 26 days to mature while the female takes somewhere in the neighborhood of 29.



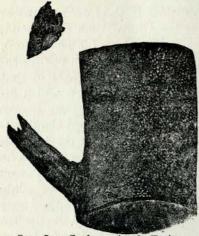
San Jose Scale on Pear

When the scale attacks the young trees bark surrounding the scale becomes very much discolored—being ringed with purple or very dark red. This becomes very noticeable when the fruit is attacked but it is only when the scale has been long established that this condition arises. The bark, when very heavily infested, appears to be of a greyish color, wholly due to the enormous quantity of scale present on the surface.

As yet, there is no remedy known that will wholly eliminate scale, but the lime sulphur winter spray if properly applied will hold it in check. This, however, must be applied every year and great care must be taken in applying the wash, for unless eve y part of the tree is covered, the scale will soon get the upper hand.

This pest is far more serious than most of our orchardists

think and if it once gets a permanent foothold here, it will cost the Valley approximately one hundred thousand dollars a year



San Jose Scale on Apple Twig



San Jose Scale much magnified

for spray material alone. Every farmer will have to spray, for if he does not, there is only one course left for him to take—go out of the business.

A. G. D.'13

#### FROST PROOF FRUIT TREES.

As a result of exploring expeditions in the forsaken wastes of China and Central Asia, fruit trees have been discovered, which, it is claimed, can resist a temperature far below zero. and should, therefore, be suitable for cultivation in our north-Two of the best discoveries are an apricot that ern districts. stands a temperature of fifteen degrees below zero and a Siberian cherry that grows out of doors where mercury freezes and alcohol thermometers have to be used to record the temperature. The apricot is a small, cold-stunted tree, but, although the fruit is not much to boast of, it is nevertheless an apricot and cannot be killed by cold weather. It is claimed that if this fruit is not good enough to suit the American palate now, it is only a matter of grafting and breeding from the hardy stock to develop any kind of taste desired. While the apricot is considered a valuable find, the one that promises to be the most popular and more valuable is the Siberian cherry. This fruit grows on a tree that never gets a chance to grow more than two feet in height, owing to winter temperature of forty degrees below zero, where it flourishes. The fruit is only about the size of a huckleberry, but the bush fruits in profusion.—Canadian Farm.





# College Life



#### U. S. C.

The student body having felt the need and having seen the example set by other colleges, decided at the beginning of the present term to organize themselves into a United Students Council. A meeting was held and a committee was appointed to inquire into ways and means and to draw up a constitution; which after the sanction of the students should become the permanent constitution of the body. Up to the date of this going to press the committee have not yet reported; but as business had to be carried on, in the meantime—Mr. Woodman '13 was voted President and Mr. Donaldson '14 Secretary.

The question of a universal N. S. A. C. sweater was dealt with. A plain navy blue one with old gold neck, wristbands, and waist band was decided upon. The object of a plain sweater was, that the various athletic teams would put their distinctive monogram on the breast.

A delegation of four, consisting of Mr. Woodman '13, Mr. Donaldson '14, Mr. Bolden '13, and Mr. Buckley '14 was appointed to represent the N.S.A.C. at the Maritime Students Missionary Convention at Sackville, where they are to be entertained by the Mount Allison College.

We are expecting a very full report from the delegation which will be published in our next issue. The College is to be congratulated in having made such a fortunate selection and we have perfect confidence that they will do us credit and show the students of the Maritime Provinces that we, as a college are perfectly prepared to take an interested and intelligent part in the various interests of the students of Canada.

#### THE SENIOR CLASS.

Another new feature of the College year among the students is the organization of the classes. The '13 class, feeling the

need decided that an organization was necessary. Therefore, Mr. Cochran '13 was appointed President and Mr. Woodman, Secretary. The result is already apparent, the meetings of the class are more orderly, business is handled more expeditiously and effectively, confusion and the working at cross purposes is being avoided.

#### THE JUNIOR CLASS.

The class of '14 were hardly in the building before they were under a temporary organization. Committees to draw up a constitution and by-laws was appointed, whose recommendations with a few changes was adopted. Mr. Illsley was appointed President, Mr. Shaw as Secretary, and already they have had one debate and a short program has been arranged for an evening in the near future.

#### THE DEBATING SOCIETY.

During the closing week of last term the Debating Society at a special meeting elected a partial list of officers to carry on the opening business of the ensuing year.

Those elected were Mr. E. Morash, '14, President; and Mr. C. F. Peterson '14, Secretary.

As yet no meeting has been held, on account of having no Assembly Hall. Consequently the list of officers has not been completed.

It is hoped that at the beginning of the new term the new college assembly hall will have been completed, and we will be able to resume our activities with greater interest and profit.

Class debate will be held however, from time to time and thus the students will be somewhat prepared for the public debates to come. Debating at this college has always been carried on with a good deal of interest by the students and it is hoped that they will continue to do so.

By frequent practice before a non-critical audience one is able to attain confidence in himself and will become able to perform similar duties acceptably later on in life, if he should be called upon to do so. College is the place to learn and practice public speaking and if one does not take the chance when offered his opportunity may be lost.

?

The peaceful repose of the honest citizens of Truro was rudely broken in upon at the wee small hours of Thursday morning Nov. 14 by the orderly march of many men and the toot of an old fish horn. The toot was immediately followed by an outburst such as only an orchestra, made up of a cornet, three tin horns, a dozen kazoos, seven tin cans, and thirteen voices accustomed to rendering college yells is capable of producing.

(The orchestra was accompanied by a snow storm.)

Not only were the instruments of this band rather unusual, but the uniforms were of a highly original and varied character, calling forth no complaints as to their monotony. Owing to the lack of better quarters, they assembled at the bridge and after using the same as a dressing room proceeded to tour the principal streets of the town.

Their dignified (and silent) progress was marked by much window banging, many broken blinds, not to speak of the outthrusting of heads from the houses along the line of march, attesting the fact that the town was not so sound asleep as might have been supposed and that the burgers were taking a healthy interest in the proceedings.

It might be remarked here that classes that day were marked by much sniffing, coughing, and displaying of hand-kerchiefs, punctuated by yawns; not to speak of very pointed remarks by the Prof., as to the seeming sleepiness and languor of the classes.

(Need more be said?)

# Dairying and Poultry

### FEEDING DAIRY CALVES.

Many dairymen make it a point to have a large number of their cows freshen in the autumn, because of the increased price of dairy products, but, taking the country as a whole, undoubtedly the greater number of cows commence their period of lactation in the spring. Dairying is recognized as one of the best-paying branches of agriculture. What has made it so? Increased demand for dairy products is largely responsible, but, at the same time, the improved condition of the dairy herds. has had much to do with rendering the business more remuner-Cow-testing and milk records have made it possible to weed out the poor cows and keep only those giving a profit. This has had a marked influence on the class of calves kept by breeders. It stands to reason that a calf from a heavy-producing strain is far more likely to be a profitable investment than one from a strain of indifferent milkers. no surer method of improving a herd than by selecting and raising calves from the best producers. In the past, too many calves have been turned away for yeal, calves which, had they been properly fed and managed, could not but have developed into the right kind of milking matrons.

Selecting the calves is not all that is necessary. Feeding and management are important factors in the development of the dairy heifer from the time she is dropped until she takes her place at the pail. Rearing dairy calves requires considerable care if best results are to follow. The calf must be kept growing and in a thriving condition, but over-feeding, which has a tendency to cause the animal to run to fat, instead of rapid growth, must be avoided. Few animals are more responsive to skilful treatment than the dairy calf, and few are more easily permanently injured by injudicious feeding and bad management. The good and careful feeder will just keep within the appetite of the calf, not permitting it to leave any

feed, and at the same time giving it all it requires. Calf rearing is recognized to be one of the most interesting phases of stock-breeding, and cannot receive too much attention.

Starting out, then, by selecting as far as possible, all the heifer calves from the best cows in the herd, the calves should get new milk entirely for at least a week after birth. At the end of a week, small quantities of sweet skim milk can be introduced into the whole milk, and gradually increased until, at the end of three weeks, the calf is getting skim milk altogether. All changes must be made gradually, or the calf's digestive system will receive a severe shock. At first the calf should be fed three times daily. At the end of the third week. or when the calf goes on skim milk, the mid-day feed can be omitted, and all the milk given in two feeds of from three or four quarts each. A good substitute for the fat in the milk can be made by soaking flaxseed in water for twelve hours, one part of seed to six of water by volume, then slowly boiling and simmering to a jelly, and starting to feed about a third of a cupful, gradually increasing to a cupful as the whole milk is withdrawn. Such jelly is not long required, for the calf will soon learn to eat meal or whole oats; in fact, a little ground oats or ground flaxseed can be added to the milk, oftentimes, in place of jelly. The calf can easily be taught to eat pulped roots, and nothing will be found to be better relished than a few of these with a little meal, mixed. Bran and oats, equal quantities by weight, make a good meal ration. Avoid cold or hot milk. Milk fed at near the body temperature gives the best results. As the calf grows, the amount of skim milk can be increased until ten or eleven quarts are fed daily at from four to five months of age. At five months of age the calf is old enough to wean, and solid food can be substituted entirely-Plenty of good green clover or alfalfa hav should be before the calves at all times. A little ensilage will be relished, and is a good feed. When green feed comes, give it in abundance. The calves will be found to do better to remain in the stable during the hot summer days, away from the heat and They should be allowed out in the paddock at night. Keep fresh water before them at all times, and see that they are thrifty, clean and dry. The value of the future dairy cow depends largely upon her treatment during the formative period of her life.

Remember to give the calf a liberal grain ration at weaning time, and under no circumstances stunt the feed of the growing heifer before her first calf is dropped, and never will it be found profitable to do so afterwards.—Farmer's Advocate.



### POULTRY NOTES.

The cold weather is not far off and now is the time when should make the final preparations for the comfort and welfare of the egg producers for the cold weather months. The main preparations should have been made, however there are still a few fine days left to attend to the matters left.

All young, growing stock, that has been kept outdoors all night, should be brought in at once and trained to their winter quarters. Exposure at this time of the year is too severe for all classes of poultry.

Any surplus stock not needed for winter eggs may be marketed now or fattened for Christmas roasters.

The quantity of corn should be increased now. Corn is a fattening food, slow to digest and furnishing a great deal of bodily heat. It is best fed at night and on account of being a slowly digested food will remain practically all night in the chicken's crop.

Grain should also be fed to the geese now so as to put them in good condition for the winter. Sometimes geese will not eat the pure grain and in that case boiled potatoes mixed with barley or corn meal will prove a good substitute.

November, with a number of poultry men is the beginning of a new year for by this time the good pullets are just starting their first year's work.

C. F. P. '13.

## THE INTERNATIONAL EGG LAYING CONTEST.

The international egg laying competition that has been conducted during the past year at the Connecticut Agricultural College at Storrs is ended. The winners have been decided upon by the greatest number of eggs laid. The first prize was won by a pen of single comb White Leghorns, the five hens having laid 1071 eggs or an average of 214.2 eggs per hen during the year.

McLeod Bros., of Stoney Creek, Ontario, took second prize, their pen of White Wyandottes having laid 1069 eggs. The contest was the greatest race in the history of egg-laying competitions.

For two months the White Wyandottes hammered away and gained sixty eggs. Should the contest have continued for two days more the Wyandottes would no doubt have won. Both of these pens will remain in the contest for another year.

The S. C. Rhode Island Red owned by Mrs. H. Lehman, of Midday, Ky., won the highest individual honor, having laid 254 eggs.

The total number of eggs laid by all varieties for the year was 75,230 or an average production per bird of 155 eggs. This is conside ed a high average, for statistics show that the average hen of United States and Canada only lays about half the amount.

At the end of the contest there were fifty birds that had laid from 200 to 254 eggs.

The following is a list of the average number of eggs laid by each variety:

Buff Wyandottes 169.4.
Columbian Plymouth Rocks,
167.

White Plymouth Rocks 162. S. C. White Leghorns 161.9. White Wyandottes 161.1. S. C. Rhode Island Reds 159.2. R. C. Rhode Island Reds155.6. American Dominiques 154.2. S. C. Buff Orpingtons 155. Barred Plymouth Rocks 152.7. Columbian Wyandottes 151. Buttercups150.6.

S. C. Buff Leghorns 146.1.

S. C. Brown Leghorns 143.2.

Anconas 142.8.

Black Langhans 142.2.

Golden Wyandottes 137.8.

S. C. White Orpingtons 135.8.

S. C. Black Minorcas 125.2.

Partridge Plymouth Rocks

120.

Houdens 113.8.

Dark Cornish Games 112.

Silver Wyandottes 107.6.





Prof. S. to Junior in Bot.—Could any of you gentlemen tell me what those hills are?

Junior.—"Nova Scotia."

(He is thinking of writing a Geography.)

Agricultural Notes—We are sorry to see that Mr. C-c-r-n has discovered "Blight" in the Senior Class.

In a clipping from a Western paper we notice that Mr. George Leslie Whitehouse has had a sheriff's sale owing to the failure of the pumpkin crop.

(The vines grew so fast that they were the pumpkins out dragging them over the ground.)

We are glad to see that one of the Seniors can be accounted for.

M-r-sh seems to be the result of a narrow ration.

We hear that Mr. K-n-on has advised the town to place an ark light by the park brook to supply the frogs with insects.

Prof. L. has advised P-t-r-on to step lightly so as not to shake the earth.

The Junior methods of doing business are certainly original

We hear that the Vice President after having been nominated—seconded, carried and clinched his election himself.

One of B-l-ns' neighbors is said to have given him \$10.00 for his cornet.

B—— bought an \$8 horn and \$2 worth of music. The neighbor is now in the asylum.

If there should be any doubt—We think that it was the pigs and not the class the P——n—I was complimenting, when he compared the two, in Ag. C.

We are at a loss to account for I-l-s-e-y's interest in the bare maintenance ration.

Perhaps his landlady could throw some light upon the situation.

We are glad that D-s-t-n has decided to import one of the birds from the West which are guaranteed to devour 10,000,000 tons of weed seeds per year.

We think it might be used as a grain elevator

I-l-s-ey is nursing a sore jaw from trying to pronounce the scientific name of cork.

### 40 THE MARITIME STUDENTS' AGRICULTURIST

No. 1.—"Say would you like to meet some girls?

No. 2-"Yes!"

No. 1.—Miss A——allow me to present Mr."(aside what's your name")

"Schafheitlin"

No. 1.—"Oh cut it out."—Exit.

Prof. S-h informed us that no one has normal eyes.

It is certainly true, however, that some of the Juniors are developing the "Normal" eye.

"Sunny Jim" in class meeting—"Mr. Chairman, may I make a motion?"

Mr. C.—"No, sir, you're a continuous motion all by yourself."

Prof. S. in Bot.—"Did any one see the flowers on a spruce tree during vacation?"

No answer.

Prof. S.—"Then I guess you had better spruce up a bit."
D-st-n in rear "Or Pine away."





HARVESTING IN NOVA SCOTIA



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MEN'S AND LADIES' TAILORS

Inglis St.,

Truro, N. S.

A Large Stock of the most up-to-the-minute Imported Cloths to select from.

In Scotch Suitings, West of England Trouserings.
In Materials for Evening Dress, Day Frock
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# YOUNG MEN'S CHRISTIAN ASSOCIATION

The Association offers to the young man temporarily in town a place for companionship and recreation.

To Students from out of town, memberships are extended for all privileges at half rates.

# Che Learment Hotel

Drug Store in Connection

Я. Б. LEARMENC,
Proprietor

TRURO, NOVA SCOTIA

Finest Sample Rooms in the Maritime Provinces.

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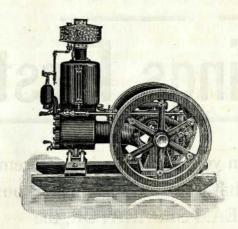
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