THE
O.A.C. REVIEW
Summer Number
1932
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The O. A. C. Review

The Profession I have embraced requires a knowledge of everything.

Vol. XLIV. Guelph, July, 1932. No. 11

This is the last chapter of the college activities for 1931-32. In the Fall new faces will be seen on the campus and we will be missing some of the old familiar ones, for we understand from present conditions, that some students who rely on their earnings during the summer months to carry them through the winter, will be forced by these circumstances to remain out for the forthcoming college session.

Outwardly there is no sign of the hard times which people aver are with us now, and a casual visitor would probably see little or no evidence of depression so far as the O.A.C. is concerned. Students never believe in looking poor, but the tale of reduced expenditures on the luxuries of life, and the trend of the general life of the working undergraduates show the situation as utterly different from any which has existed in previous years.

We are, however, part of a world that is essentially a world of youth; we are in possession of a spirit which takes the hard knocks as they come and prays for better luck on the morrow. Anyway the depression is not nearly as bad as our politicians, business magnates, and other crepe-hangers would have us believe!
To pass to more cheerful thoughts. We again express the hope, for we are told that “Hope springs eternal in the human breast,” the hope of every Editor of the Review since the time of its birth, that we shall be in receipt of large numbers of MSS for the Fall publications of the Review. For variety is the spice of life, and contributions from other pens than those of our old standbys would be welcomed.

Finally, the editorial staff of the O.A.C. Review wishes its readers a happy and prosperous summer.
Summer Beauties of the O.A.C. Campus

Snowballs! A mid-summer scene from Watson Hall.

It has always seemed to the writer somewhat of the nature of tragedy, that the regular students of this college should have to leave one of the most beautiful places in the American Continent just at the time it is beginning to look its best, and return in the fall just in time to see the summer beauties fade.

Of course the varied hues of autumn form a picture not easily to be forgotten, but it is the summer visitor to the O.A.C. who sees the campus at its best.

It seems, therefore, not inappropriate in this summer number to attempt to convey to the reader some slight concep-
tion of what the campus looks like to the fortunate people who are attached to the college during the summer months.

Most of the pictures were kindly loaned by the Extension Department; and exquisite pieces of photographic work though they are, they cannot duplicate the actual beauty and freshness of the scenes depicted.

The Experiment Rose Plots—a feature of the mid-summer campus.
Evergreens on the lawn near Macdonald Institute silhouetted against the clouds.
A TOUCH OF BEAUTY FROM THE COLLEGE CAMPUS

There are many such spots, hidden from the casual eye, but apparent to the lover of Nature in all her spring freshness.
"Quis Custodiet Ipsos Custodes?"

An African Tale with a Moral

By H. Dennis-Nathan '34

WHEN James Murgatroyd's father died, leaving him the business and goodwill of the little tobacconist shop which had been the family heritage for three generations, that young man, as soon as the legal formalities had been completed, and he found himself in full and complete charge where he had, hitherto, merely taken the place of an assistant behind the counter, quietly shut his shop door, and retired into the inner room at the back of the shop. Placing a photo of his father, of whom he had been very fond, on the table beside him, he lit one of the choicest cigars in his shop, and seating himself in an easy chair, remained silently brooding until his cigar went out, the street sank into slumber, and no noise broke the stillness of the night.

Then, suddenly standing up as a man does who has made up his mind, he flung the stump of his cigar into the fire, now a mass of white ashes where it had burnt itself out, and in ten minutes was sound asleep in his bed in the inner room where he had been living ever since he had left school, and started working in the shop after his mother's death.

The result of his cogitations became apparent when, within a month, James Murgatroyd had sold his business to the great Tobacco Trust, whose palatial shop was in course of erection in the main street of the little town in which his business was situated; had married pretty little Mary Johnson, whom he had been courting for the past twelve months; transferred all his capital, some two thousand pounds, to a South African bank, and found himself with his Mary leaning over the rail of a big liner watching the white line of the chalk cliffs low down on the horizon, fading into the after-glow of the sunset that was all that remained of the land of their birth.

South Africa treated the Murgatroyds no better and no worse than she does other strangers, arriving on her hospitable shores. They underwent the same vicissitudes of fortune, good, bad, and indifferent, as we all do, more or less, and ultimately found themselves, in the
course of years, stranded high and dry in a native concession store on a main road to the capital of one of the big native territories, fifty miles or so from their nearest white neighbors. Here they supplied the amenities of civilization, in the shape most desired by the natives, to some two or three hundred thousand, in the main, untutored savages.

That means that the Murgatroyd's were people of substance. Their bank balance was by no means to be despised. Their children, who, when this story begins, were grown-up, two boys and a girl, occupied important positions, and were no longer dependent upon their parents.

Having been established so long, twenty years is an eternity in South Africa, James was a landmark in the district. In the course of his business, he had learned to speak the native dialects like a native, and, having always treated his customers with the most scrupulous fairness, and had never trodden ruthlessly upon their racial corns, as so many of the traders do, he held an absolutely unique position in their estimation.

All natives have a high regard for a white man's knowledge and wisdom. Their mental processes are simple and childlike once you get to understand their way of looking at things, and James had learned that lesson in the course of dealing with them during the years that had passed. As a consequence, little by little, when they found that they could trust him, first the natives living in his vicinity, and later those from further afield got into the habit of coming to him with their little grievances, and asking his advice on all manner of subjects, quite apart from the question of trade, which was the main purpose of his existence.

Mary, too, came in for her share. Was there a sick baby within twenty or thirty miles that she did not know about? Or a maiden betrothed under the lobolo system, who objected to her parent's choice? Or a birth, or any of the thousand petty interests of native woman's lives she was not consulted about.

So, by the time of which I am speaking, the old couple found only about one third of their time occupied by legitimate trading, and the remainder of their time occupied in long-winded discussions about the personal affairs of their dark neighbors. Seeing that they were both to great extent out of touch with their own race, they took a keen and friendly interest, whilst always retaining their own pride of race which prevented them ever descending to the level of intimacy, or adopting the mode of living of the natives as some traders do.
Down in Capetown, a few thousand miles away from where the Murgatroyd’s were living out their placid existence, the House of Assembly, in Parliament assembled, passed a Bill dealing with the native question. Various important and influential men made speeches that were fully commented on by the press, and every clause was keenly debated in Parliament and out. Opinions were sharply divided about the wisdom or otherwise of the measure, but the principal question that occupied the minds of all thoughtful people was, "What will the natives think about it?"

The Bill became law! From end to end of the country came news of unrest in the native territories. Policemen stationed at isolated posts sent in very disquieting reports to their superiors. Several emergency Cabinet meetings were held. Farmers living in out-of-the-way places began to find their nerves on edge, and in some cases sent their dependents to towns, or deserted their farms altogether. Even on the mines, special precautions were taken.

Men began to drill on the market squares of the big towns. Troops started to move about the country towards strategie positions. Police posts were strengthened, and from here, there, and every where, came vague rumours of dissatisfaction that were even more disturbing than anything really tangible.

Suddenly the excitement died down. Nothing happened. Everything went back to normal, and the natives accepted the new arrangements without comment, much to the surprise of those who thought themselves most "in the know" with regard to native affairs. The most extraordinary part of the whole affair was that there was nothing that had occurred which could account for the inexplicable change that had taken place in their behaviour.

Nationally, the Authorities took all the credit to themselves. The papers were full of eulogistic articles about "Prompt Government Measures which have proved singularly effective in quelling the incipient native unrest before it had time to become really dangerous," and so forth. Even keen students in native affairs could come to no other conclusions than that the natives were afraid of the consequences and had decided to "take it sitting down"; only the wisest of them shook their heads and admitted that the intricacies of the native mentality were beyond their comprehension.

Yet it was all very simple, nobody knew any thing about it.
James had followed the course of the Bill from its inception. Anything that affected native interests appealed to him, and, as his son sent him newspapers regularly, he got the news of the day not more than fifteen days old, so he kept himself very well informed with regard to the affairs of the world, in spite of his isolation. In some ways, he was better informed than most people, because, being by nature thoughtful, his very remoteness from the hurly-burly of life gave him time to ponder over and thoroughly digest what he read.

Soon after the promulgation of the Bill, his store became a sort of club-house to the entire district. There the chiefs and indunas used to foregather, squatting on their haunches, in the large open space before the counter, with the heaped sacks of mealies, flour, kaffir-corn and so on, as a back ground, and in front the patriarchal head of James Murgatroyd, pipe in mouth, leaning over his counter, gravely listening to their talk while they debated this or that point of the proposed new law, as it presented itself to their mind; rarely speaking himself unless directly addressed, but listening to all they had to say about the matter with absorbed interest.

When he did speak, he only did so to put a new point of view before them which they had overlooked, and every word he said was received with respectful silence or astonished "Waus!" as the new idea sank into the obtuse minds of his listeners. The result was that, even after the passing of the act, whilst every other district was aflame with unrest, the country round about the vicinity of the store remained quiescent, and the men went about their affairs the same as usual.

One day, a week or two after the passing of the Act, a strange Native appeared in the store. From his appearance, he was a man of some importance, as he wore "Kehla," the ring that marks a chief councillor of the paramount chief, Dinzikulu, and, beside was accompanied by ten other "boys," who sat at a respectful distance from him, and accorded him the marks of deference, custom demands. This individual, after the usual salutations, addressing James as "Chief" instead of the more familiar "White Boss," a mark of respect to which the old man had become accustomed, and the omission of which he would have resented, informed him that he had come from the paramount chief of the Zulus, the mention of whose name made James raise his eyebrows in surprise, as he had no idea that his fame had travelled so far afield.

After a lot of "circumlocution," it turned out that there had been
a big "indaba" anent the new law, and Murgatroyd's name had been mentioned as one who could be trusted to advise them fairly in their truest interests. So the speaker had been deputed to speak to him, and ascertain his views in order that they could be told the Council at another meeting to be held in the near future, at which it would be decided what would be the natives attitude towards the new measure, whether resistance or acceptance, so, would the "White Chief" be good enough to express his views?

By some means or other this visitor's presence must have become known locally, because, by the time he had finished speaking, he was squatting in the centre of a growing ring, composed of all the most influential natives in the district for miles around, who sat silently awaiting the words of wisdom that would fall from the white man's lips.

And did James explain to them all the various clauses in the Act and the implicatons thereof! Not a bit of it! He told them a simple story in which the dramatic persons were some wise sheep and some foolish goats; some ravenous dogs and some subtle jackals. The sort of story he used to tell to his children before they went to bed at night, and all those men, each of whom could have raised an impi of five thousand assegais, had he so desired, listened with rapt attention. When James had concluded his tale, the envoy of the chief who was responsible for the well being of his countrymen some two million in number, bowed, as one who is perfectly satisfied and said "I will tell the great Chief that he has not been misinformed, and will convey to him the wisdom of the White Chief." Then raising his right hand to James Murgatroyd, store keeper, sitting on his counter in his shirt sleeves, sucking his pipe, they gave him the royal imperial salute such as is not accorded to a white man in a million, whatever his position may be. It is used only as a respect for the paramount chiefs.

Thus it transpires, that one obscure individual, whose sole claim to distinction is that, like Ababen-Adhen he "Loves his fellow men!" did what most probably "All the King's horses and all the King's men horse, foot, and artillery, would have failed to accomplish without bloodshed, and at an enormous expenditure which would all have to be paid in full when the wheel of fate turned full circle."

The beauty of it is that James himself was sublimely unconscious of having done anything. When he retired to bed that night, and discussed the days occurrences with his wife, as had been his custom since
the day they were first married, she asked what he had said to the envoy, and his answer was "Oh, I merely put to him the common sense points of view, and showed him how, though the immediate working of the Bill would be to their disadvantage, if they adopted the correct attitude towards it, and did not do anything foolish, as their opponents evidently expected they would, its ultimate implications would be all to the good, and they would gain by it, in the long run. I think they understood my point."

They did, because the natives went back to their work, the farmers have returned to their ploughing, and the country has settled down as if nothing had happened to disturb its serenity. Nevertheless, knowing all the facts one cannot help wondering with the old worthy "Quis Custodiet Ipsos Custodes?"
Research and Extension Activities at the College

This article will be the last of the series under the above heading, and this month we are giving full information regarding the remainder of the departments of the campus.

DEPARTMENT OF DAIRY HUSBANDRY

**Better Cheese**—Investigations show that the grading of milk results in an improved quality of cheese. Where pasteurized milk is used in making cheese, methods for the handling of this have been developed.

**Butter Improvement**—Improvement in creamery butter is Ontario depends in a large part on the securing of better cream from the farmers. Investigations by the Department show that when cream is cooled to 50°F cream may be held on the farm for at least three days. Studies have also shown the control and colour and salting within narrow limits.

**Ice Cream Manufacture**—Extensive investigations have shown that honey can be used to a considerable extent as a substitute for sugar in the manufacture of ice cream, with an improvement in the quality of the ice cream. The use of egg yoke improves the whipping quality of the ice cream and provides an added outlet for surplus eggs.

DEPARTMENT OF ECONOMICS

**County Surveys**—Surveys have been conducted in Peterboro and Oxford Counties in the study of resources and production of the farmers. The material has been used in outlining a county agricultural programme in the development of extension projects.

**Farm Account Books**—A new Farm Account Book has been prepared and offered to farmers. More than 850 books have been placed with farmers who are co-operating in a study of farm accounts.
Farm Tenancy—Ten to twelve per cent. of Ontario farm land is rented. Investigations have been conducted to ascertain an equitable basis of rent, and some of the problems between landlord and tenant. This help is bringing about a better understanding between these parties.

Limestone for the Farm—Extensive investigations into the production of limestone in Ontario and the freight rates on this product have been carried out during the past year and have been used as a basis for a co-operative effort between the Provincial Government, the railways and the farmers, with the result that the cost to the farmers has been materially reduced.

Group Business Activities—Preliminary surveys have been made in two counties on the group activities of farmers in marketing and buying supplies and other business services. In Peterborough County 3,684 farmers did a volume of business amounting to over $900,000, while in Oxford County 1,688 members transacted over $2,700,000 worth of business. This business does not include the activities of 85 syndicates in the two counties which operate for the purpose of threshing, silo-filling and other operations. These surveys are furnishing information as to where other economics could be practised and where the present services may be improved.

DEPARTMENT OF ENGLISH

Packet Loan Library—More than three thousand persons in Ontario received help from the Packet Loan Library, which sends out material to persons wishing assistance in preparing debates, speeches and in choosing plays. With the increased interest in Junior Farmer Organizations, Women’s Institutes, Dramatic Societies and other organizations, a larger demand comes each year for suggestions, advice and help. This Department is occupying a most important field.

DEPARTMENT OF ENTOMOLOGY

Corn Borer Control—The activities of this Department in administering the Corn Borer Act since 1926 have, so far as it is possible to judge, saved the corn crop in the main corn growing counties of the Province. Nevertheless a continuation of the strict enforcement of the Act is absolutely necessary to keep
the insect under control. It should be kept in mind that from
time to time a season may occur which will be so favourable
for the corn borer that it will increase even despite a good clean-
up. The summer of 1931 was such a season.

Apple Maggot—In 1931 great progress was made in the
fight against the apple maggot which had been rapidly increas-
ing and threatening serious injury to the apple industry, espe-
cially as Great Britain had given notice that if infested apples
were found in Canadian shipments an embargo would be placed
upon all early consignments.

In 1931 the Department had all orchards known to be in-
fested in 1930, well sprayed for the pest with very good results.
It also had a survey of the apple maggot situation in the Pro-
vince made for the first time so that in 1932 it would be possible
to make a dead set on the insect.

Orchard Spray Service—The Province-wide Orchard Spray
Service with which the Departments of Entomology and Botany
and Provincial Fruit Branch have been co-operating since 1924,
was vigorously prosecuted during the past two years. In the
seasons of 1930 and 1931 most of the commercial apple orchards
of the Province (excepting in the Niagara Peninsula) were in-
cluded in the service, the total number of orchards in 1931 being
1,374. By the selecting and training of competent supervisors
and insistence on thorough work, the service has reached a
stage of marked efficiency, and 1931 saw the production of an
excellent crop of apples with a higher percentage of high-grade
fruit than any previous year. This service is financed by the
Provincial Fruit Branch but the practical work of instruction
and supervision is done by the Departments of Entomology and
Botany, and all the spraying experts of the Province are train-
ed by these departments.

DEPARTMENT OF EXTENSION

Educational Exhibits—During the past two years large edu-
cational exhibits have been placed at various exhibitions as
follows: Two at the International Livestock Show, Chicago;
five at the Canadian National Exhibition, Toronto; two at the
Royal Winter Fair, Toronto; two at the Western Fair, London;
one at the Provincial Winter Fair, Guelph; and two at the In-
The character and value of these exhibits may be judged to some extent by the following comment from the manager, B. H. Heide, of the Chicago International Show:

"I desire to take this opportunity to congratulate and thank you for your splendid educational exhibit at the recent International Livestock Exposition.

You have earned such a reputation for presenting outstanding exhibits at previous Internationals that our visitors take it for granted that you will have some thing of unusual value for them each year. I am sure that they will all agree with me that you fully lived up to their expectations at the 1930 International, and that thousands of farmers carried home practical information concerning the alfalfa crop of Ontario."

Soils and Crops Train—In each of the past two years the Soils and Crops Train operated by the Crops and Markets Branch, has been fitted up at Guelph under the direction of the Department of Extension. Information on crop production, soil management, weed control, seed cleaning and other subjects was presented.

Extension Circulars—During the past two years sixteen Extension Circulars have been issued. The material for these has been largely prepared by the College departments, but edited and printed by the Extension Department. A total of 165,000 copies of these have been distributed. They have proved exceedingly popular with the farmers because of their brief, practical contents and their attractive character.

Visitors—During the past two years there has been a total of more than 26,000 visitors at the College. These people were taken charge of by the Extension Department and given the best possible attention so that they might see and learn as much as possible about the Institution. While the majority of these visitors were Ontario farm folks, still there was a large number of public and high school students and teachers and people of prominence from many countries and from various walks of life, which all help to extend the beneficial influence of the College.
News Service—Information is prepared and furnished to the press of the Province. Short articles concerning activities of immediate interest are sent each week to the daily and weekly press, while articles of greater length and more detail are specially prepared and furnished to the agricultural press, magazines, and scientific journals.

DEPARTMENT OF FIELD HUSBANDRY

A New Variety of Barley—A new variety of barley, which has been given the name of “Nobarb,” was originated by repeated selection from a progeny of a cross of O.A.C. No. 21 and Lion made in 1921.

The grain of this variety is white in color, and the beards are smooth to the touch. In plot tests extending over a period of several years the Nobarb has given an average yield of over ten bushels per acre more than the O.A.C. No. 21 variety, and has shown greater strength of straw. The length of straw of the Nobarb is slightly less than the O.A.C. No. 21, and the variety ripens two to three days earlier.

Experimental Union—Through the Agricultural Experimental Union, which serves as a medium for the outside activities of the Field Husbandry Department, ten thousand lots of carefully selected seeds were distributed to more than three thousand farmers. In this way the farmers of the Province have an opportunity to familiarize themselves with the best variety of seeds and select those which are best adapted to their soils and conditions. Marked improvements through the years have been accomplished through the co-operative experiments.

The Swede or Table Turnip—Almost five thousand cars of Swede or Table Turnips are shipped each year to the United States from Ontario. These turnips go into every State east of the Mississippi River. As a result of the experimental work conducted at the College, excellent varieties have been secured and are responsible for the success of this important crop in the counties of Western Ontario.

Soybeans for Ontario—Soybean demonstration plots were placed in each of thirty counties in 1930, and each of forty counties in 1931. On each plot one-half of the crop was harvest-
ed for hay and the other half allowed to mature for seed, or to demonstrate whether or not the crop would mature. An acre of each of two varieties was used in each demonstration.

As a result of these demonstrations there is now a much wider interest in soybean culture, and the acreage was very much larger in 1931 than in any previous year, the increase being mostly in the south-western counties.

DEPARTMENT OF HORTICULTURE

A New Apple—A new variety of apple (Spy x McIntosh) of which we have a single bearing tree, has come to the point where it has proved its quality, and young trees and scions are now being distributed to selected members of the Ontario Fruit Growers' Association. The first exhibit of fruit of this variety was made at the Royal Winter Fair, Toronto, in 1931, and attracted a great deal of attention for its high colour and fine flavour.

Provincial Rose Test Garden—Two years ago, arrangements were made for a provincial rose test garden on the campus. This is being done in co-operation with the Ontario Rose Society. More than one thousand varieties are now growing in the garden. These have come from many countries and many of them are being tried out here before being placed on the market. During the past two seasons hundreds of flower lovers have come from all parts of the Province and even further abroad to study these varieties while they are in bloom. This is now the largest rose testing project on the North American Continent.

Orchard Fertilizer Work—An eight-acre apple orchard near Simcoe in Norfolk County has been taken over by the College as an experimental orchard to determine fertilizer needs for apples. This project is conducted with the co-operation of the Department of Chemistry. A study is being made of the effect of various fertilizers on root distribution as well as the top growth of the trees, and quantity and quality of fruit produced.

Already this experimental orchard is proving a source of much interest and practical information to fruit growers in the south-western section of the Province.

Tomato Growing Project—Extensive experiments are under way on different soil types in sections of Eastern Ontario to
The O.A.C. Review

Determine best methods for the successful growing of tomatoes on these different types of soil. In this project, the Departments of Botany and Chemistry are co-operating. Ten distinct fertilizer formulae are being used in an effort to determine which is best for each type of soil. The effect of these fertilizers is being studied in regard to the amount of crop produced, earliness of maturity, and their influence on two especially troublesome tomato diseases, namely, "Blossom End Rot" and "Leather End." This work has now been under way for four years and tomato growers of those districts are now applying the results to their regular tomato growing.

Soil Fertility in Relation to Vegetables—A study of soil fertility and vegetable growing is being made at Guelph, Vineland and Harrow Experimental Stations. The object of this is to determine to what extent green manures can replace barnyard manure in practical vegetable growing, a certain percentage of commercial fertilizers being used in all cases.

O.A.C. Early Strawberry—This new variety, which was originated at the College some years ago, continues to come into more general use. It is perhaps the most winter hardy variety grown in Ontario, hence is of great value, especially in the northern sections of the Province.

Cold Storage Experiments—The cold storage rooms in the new Horticultural Building are in use for extensive experiments in the cold storage of apples to secure concise information on the control of Apple Scald. For this purpose quantities of apples have been secured from three widely divergent districts, namely, Georgian Bay, Norfolk and Northumberland Counties, and from two soil types in each of these three districts. Some of the apples from each source were stored immediately after packing, with some the storage was delayed for one week, and with some storage was delayed for three weeks. In each case part of the apples were packed in shredded oil paper and part without. These tests are being repeated with each of four of the most important commercial varieties of apples and altogether should give some very valuable information.

Another cold storage experiment with raspberries has already brought out one very interesting and valuable point as follows:—It has been clearly shown that the Cuthbert, a good
variety, but one which does not stand up well under ordinary storage, does much better under cold storage than the Viking, which is a firmer variety and decidedly better suited for shipment when harvested.

DEPARTMENT OF POULTRY

Culling and Testing of Flocks—During the past two years 1,020 flocks of poultry, containing 366,253 birds, have been culled and banded for the purpose of eliminating birds infected with Pullorum.

More than 150,000 birds selected and banded are classed as extra good specimens of the different breeds. These hens will produce hatching eggs which should give more than 3,000,000 baby chicks for the farms of the Province. The elimination of the disease has resulted in a saving to poultry raisers of more than $200,000 annually.

Cod Liver Oil and Sunshine—Research on poultry rations shows the importance and necessity for the addition of cod liver oil as a substitute for sunshine during the Fall and Winter months.

It is estimated that 200 hours of sunshine per month are required to produce good hatching eggs. Cod Liver Oil not only serves as a valuable substitute for sunshine, but increases the annual egg production and increases the hatchability of eggs by fifteen to twenty per cent.

The studies also show that a combination of milk, beef scrap and fish meal makes a better protein supplement than any one of the parts used singly.

Poultry Vaccination, Culling Schools, Judging—Poultry owners have been assisted in many ways. Twenty-five flocks, containing 32,000 birds, have been vaccinated for Chicken Pox. Ten culling schools, one to four days each, have been conducted. Poultry instruction and demonstrations have been given at twenty Poultry Short Courses, while members of the Staff have served as judges at Shows and Competitions.
Equine Friendship
Original Drawing by D. H. Pasfield, '35.
Weed Control by Chemicals

W. M. Gammon, '30

ORDINARY annual weeds which reproduce only by seed, occasionally become serious pests, but they may be dealt with by customary farm practices. The perennial noxious weeds which spread by means of root-stocks, as well as by seed, present a far greater problem. Good farming practices have failed to check completely the spread of such noxious weeds as Wild Morning Glory, Canada Thistle, Twitch Grass, Perennial Sow Thistle and many others of this type.

The fleshy perennial root-stocks act as storehouses of plant food, and persistently send out new shoots as old ones are cut back by mowing or cultivation. Most thorough efforts are required to exhaust the stored plant food found in the roots of well-established perennial noxious weeds. Cultivation often causes a great spread of these fleshy root-stocks and a larger weeds infestation in many cases is obtained instead of complete control.

There is an urgent need for less laborious and more efficient methods of dealing with creeping perennial weeds. Chemical weed-killers may satisfy this demand. The ideal chemical weed-killer is one which involves the least expense for material and labour, the least damage to the soil, and no danger of
poisoning to livestock or people, and one which is immediately effective.

During the last decade a large amount of experimental work has been carried on with the arsenical weed-killers. Many of these were found effective, but there was always present the great danger of poisoning livestock. The chlorates have largely replaced the arsenicals. The sodium and calcium chlorates are used chiefly.

The writer, under the supervision of Professor J. E. Howitt, of the Botanical Department, has carried on considerable experimental work with chemical herbicides during the past two summers. Over twenty chemicals were used on four hundred plots of noxious weeds each season. Some of the more important weeds experimented with were: Ox-eye daisy, field bindweed, perennial sow thistle, field mustard, white cockle, chicory, twitch grass, poison ivy, field buttercup, bladder campion and blueweed.

The results so far have proven definitely that certain chemical weed killers, if properly applied, will give a hundred per cent. kill of certain weeds. Due to the excessive cost, the majority of the chemical herbicides can only be used on small patches of weeds.

It has been shown that with the chlorates there is usually a residual effect left on the soil if more than two applications are applied to the weeds. The chlorates produce a damaging effect on the soil until decomposition of the materials has occurred.
This happens rapidly where the soil temperatures are high. The soil recovers its normal fertility, in the majority of cases, one year after the time of application.

Definite amounts of the chemicals cannot be prescribed for all conditions. The required quantity has been found to vary slightly with the kinds of weeds treated, and greatly with the amount of vegetation present. It is essential that a sufficient quantity be utilized in the first application to assure a maximum kill, and thus reduce the labour costs of subsequent applications. It is generally accepted that all of the foliage of the plant must be adequately covered with the chemical.

It was found that the sodium chlorate was one of the most effective and cheapest herbicides. "Atlacide" and "Weed Cop" were the most effective of the commercial weed-killers.

Ox-eye daisy and wild carrot were killed by giving one application Atlacide or Weed Crop, at the rate of one pound per gallon of water per one hundred square feet, or by one application of sodium chlorate at the rate of one pound per gallon of water per four hundred square feet. These materials should be applied just as the daisy commences to bloom. It is interesting to note that the ox-eye daisy can be eliminated from pastures without serious damage to the grass, at a cost of eight dollars per acre for material.

Three applications of Atlacide, Weed Cop, or sodium chlorate were found necessary to kill twitch grass and field bindweed. The amount of material required was one pound per gallon of water, of Atlacide, or Weed Cop, per one hundred square feet, or one pound of sodium chlorate per gallon of water per four hundred square feet. The first application was given when the weeds were in full bloom, the second three weeks later, and the third a month later.

At least two applications and sometimes three of Atlacide or Weed Cop were necessary to kill perennial sow thistle, the rate of application being two pounds per gallon of water per one hundred square feet. The first application was given just as the thistle commenced to bloom, and the second three weeks later. If new top growth appeared after this, another application of the same strength was given.
Two hundred pounds of sodium chlorate crystals per acre, applied after a severe frost in the fall, gave a hundred per cent. kill of Canada thistle for two years in succession.

Poison Ivy and chicory were sometimes killed with one application of Atlacide or Weed Cop at the rate of one pound per gallon of water per one hundred square feet, but frequently new growth appeared and a second application at the same strength and rate as the first one, was necessary to obtain a one hundred per cent. kill.

Blueweed and Burdock were killed by one application of Atlacide or Weed Cop, at the rate of one pound per gallon of water per one hundred square feet, or by one of sodium chlorate at the rate of eight ounces per gallon of water per one hundred square feet.

It was found that paths and miniature golf courses could be kept free from grass and weeds by one application of Atlacide at the rate of three pounds per gallon of water per one hundred square feet, or two pounds of Formite per two gallons of water per one hundred square feet.

One cannot make any recommendations for the use of sodium chlorate without giving the precautions necessary to reduce the fire hazard to a minimum. When sodium chlorate is combined with organic matter it becomes highly inflammable, ignites easily and burns with explosive rapidity. However, if the following precautions are followed, the danger is reduced to a minimum.

First, remember that sodium chlorate is almost as dangerous as dynamite, and that it should be handled with the same care and caution that this material receives.

Second, never allow sodium chlorate to become mixed with sulphur or other organic material.

Third, store the steel drums of sodium chlorate in a dry place, and when using the material, take the drum to the field and remove the sodium chlorate as required.

Fourth, always wear rubber boots when spraying. If clothes should become damp with the spray, wash thoroughly in cold water before they dry.
Fifth, never use sodium chlorate near buildings, hedges, or other places where there may be danger of fire.

Sixth, use sodium chlorate with great care near valuable shrubs and trees. These may be seriously injured if the weeds near them are sprayed heavily with sodium chlorate.

The chlorates gave best results when applied to the weeds as a fine spray under pressure from a small portable garden sprayer. Orchard sprayers can be used successfully on large areas.

In conclusion, I may say that it is quite possible these chlorates will be used on large areas in a few years. The cost is now almost prohibitive, but it is quite possible if their use becomes general the manufacturers may be able to reduce their prices. There is also the possibility of the discovery of a cheap chemical that can be used successfully as a herbicide.
YEAR '30

YEAR MEMORIAL

The memorial bronze, "L'essoucheur," has been placed in the main entrance hall of the new Administration Building, in the alcove, and in direct line with the main entrance. Its position is such that it cannot but be noticed by any visitors entering the building. To date a pedestal and plate have not been purchased, but the memorial has been placed on a small table, suitably draped. A card has been printed, as below, to serve for the time being, in lieu of a plate.—

L'essoucheur
(The Land Cleaner)
by
A. Suzor-Cote
Presented to
The Ontario Agricultural College
by
Year '30 Alumni

We feel that when mounted upon a suitable pedestal, with plate, the bronze cannot help but create a most favorable impression upon all who view it, and reflect great credit upon the Year.
MARRIAGES

The ranks of Year '30 benedicts grow apace. We have two new Year marriages to report; and rumors of several others to take place before long.

Miss Florence Ann Simpson, of Charlottetown, P.E.I., and M. W. Chepeshuk were married on April 2nd, 1932, at Knox College Chapel, in Toronto. We understand that several of the boys in Toronto witnessed the ceremony. The very best of wishes, Mike! The new bride and groom are residing in Barrie.

Miss Charlotte Whitehouse and E. R. Renouf were married early in May. "Sliv." has made good his boast that the city of Washington hasn't got the only Whitehouse. To you also, Sliv, the very best of wishes!

BIRTHS

In our latest news letter, we wondered if it would be necessary to add another column to our next letter. It certainly is. The first Year '30 baby has arrived! Miss Jocelyn Ruth Smith was born November 25th—and is "Dutch" the proud father! Oh! Oh! And he may well be, as Year '30 members who have seen the "Duchess" Smith, Jr., have had much to say about her charms.

YEAR LIST

Herb. Atkinson—Dept. of Agriculture, Clinton. Has been very busy on short course work all winter.

Hasty Banks—Spent the winter taking post-grad. work in Michigan, but will be back to Vineland Exp. Station soon, for the summer.

Ab. Barr—Department of Agriculture, Kemptville. We hear rumors that the eventful day is close.

Len. Birk—Chemistry Department, O.A.C.

Lowe Butler—Low left the College shortly after New Year's to take post-grad. work in Genetics at Cornell University,
Ithaca, N.Y. His address is School of Graduate Studies, Cornell University, Ithaca, N.Y.

Lime Chapman—Ontario Research Foundation, Queen’s Park, Toronto. Lime had an operation for appendicitis this spring, but is now fully recovered. He is now with the Agricultural Section of the Ontario Research Foundation, and is at present working in the Ottawa district and looking up old girl friends at Kemtpville in his spare time.

Mike Chepesiuk—Dominion Live Stock Branch, Toronto. Mike is busy establishing a home at Barrie, Ont.

Ken. Deacon—Glenburn Farms, Unionville. Have not seen Ken. for some time, but “Chappy” reports him well and busy. Had a newsy letter from him a short time ago.

Dan Dempsey—108 Erie St., Stratford. Dan took the three months’ Dairy Course here at the College this winter.

Allan Dempsey—R. R. No. 1, Belleville. Haven’t heard from Allan since last fall. We surmise that asparagus is one of the big things of his life at this season. We wonder, when does the big event take place, Allan?

Lynn, Fair—Department of Agriculture, Arthur. Lynn was quite a frequent visitor here this winter. A few months ago he was sent up to North Bay, and he hasn’t sent us his address since. He’ll probably be back to Arthur before long.

Mac. Gammon—Botany Department, O.A.C. Still killing weeds. Golf course greens are his specialty just at present. We wonder, will he get a free season’s ticket? Mac. made frequent week-end trips to Kitchener this winter.

“Pete” Griesbach—R. R. No. 1, Collingwood. Is finishing up his matriculation this spring, preparatory to going to College of Education next fall.

M. G. Griffiths—Assistant Director of Athletics, at St. Andrew’s College, Aurora. Finds the little shavers a bit difficult to handle, but says the rest are easy.
"Smitty" Hamill—Ingersoll, Ont. Farming near Woodstock. We would like very much to hear from you, "Smitty."

M. P. Harrison—Assistant Live Stock Superintendent, Department of Agriculture, Fredericton, N. B. No recent news.

Don. Hewer—Division of Bacteriology, C.E.F., Ottawa. Haven’t seen Don. since the banquet last fall.

Syd. Howe—Land of Lanark Creameries, Perth, Ontario, or Box 442, Perth. We are sorry to hear of the death of Mrs. Howe’s mother. In a recent letter, the “Boiler” states that his busy time is again approaching. He reports a backward spring, and regrets the fact that he was just single long enough to be above the income tax exemption for last year.

George Hull—Teaching at Etobicoke High School, Toronto. We hear he likes it fine.

Tommy Jukes—Department of Biochemistry, University of Toronto (Room 331 in the Medical Building). Tommy is doing very well at Toronto. He is giving a paper at the Canadian Chemical Association Convention, which is being held at Hamilton, June 1st, 2nd and 3rd. In addition to his academic work, we hear that Tommy also finds considerable time to devote to the girl friend.

Vic. Langton—Department of Agriculture, Markdale. Is more or less involved, so we hear.

Jimmie MacIlwraith—Poultry Department, O.A.C. We hear Jimmie has an appointment on the permanent staff of the Poultry Department. Which will it be, Jimmy, Stenography or Chemistry, Physiology and Cookery?

Jack McCalla—Is located at Vineland Experiment Station, but almost invariably week-ends at Guelph, or is it Mac. Institute? Is still working on his Cyanamid Fellowship which was renewed this spring.

Ernie McClellan—Department of Agriculture, Essex. Ernie’s interests must be chiefly in the Kent-Essex peninsula, as we haven’t seen or heard of him in this part of the country for a long time.

Joe McKeen—Dairy Department, College of Agriculture, Truro, N.S. Joe is again back to Truro after his trip home to Ireland last fall. He apparently had a most delightful trip home.

Brad Pett—Department of Zymology, University of Toronto, or 34 Classic Ave., Toronto. We are very sorry to report the death of Brad's father a few weeks ago. We extend to Brad our deepest sympathy. Brad has been getting on very well at Toronto this winter, and will likely get his M.A. this fall. He will probably be at his home, 212 Brant Ave., Brantford, Ont., during midsummer.

Doug. Petty—Doug is managing a truck farm near Port Dover.

George Pritchett—Estate Office, Ormesby, Yorkshire, England. George has been awarded a two year British Colonial Service Scholarship, the first year to be taken at Trinity College, Cambridge, England, and the second at the Imperial School of Tropical Agriculture, Trinidad.

"Sliver" Renouf—Department of Agriculture, Brighton, Ontario. Our most recently married man! Will be engaged in tomato work in the Brighton area all summer.


Irwin Thomas—Dominion Parasite Laboratory, Belleville, Ont. Spent the winter taking post-grad. work at Macdonald, but is back at Belleville again. We understand Irwin has all his credits for his Master's degree, having only his thesis to complete.

Norm. Walker—At home at Burlington. Haven't seen or heard from Norm for some time.
OTHERS

Pop Cowie we hear is back in Wales. His address: West Grove, Merthyr, Tydfil, Wales. E. J. Doyle, A. G. Douglas and Ted Needham were all awarded their degrees this spring. Doyle is working with the Chemistry Department here and Ted Needham is Farm Manager at R. R. No. 4 Stouffville, Ont. "Spike" Galbraith is doing very well in post-graduate work at University of California—knocked the first semester's work for 8 A's and 2 B's. Hoot Gibson spent the winter at the Poultry Department here, but is now farming at R. R. No. 4, Bowmanville, Ont. George Hassan is taking post-grad. work at the University of Saskatchewan, Saskatoon. George Howell is working hard at the Poultry Department here. "Prof." Loveless is a proud father. We hear his fellowship at the College of Agriculture, Burlington, Vermont, has been renewed. Prof. and family will be visiting in Ontario during the month of June. Don. Mackenzie is working on his M.S.A. thesis at the Chemistry Department here this summer. He is very much interested in a certain Macite who hails from Georgetown. Bob Morrison, Poultry Department, O.A.C. Visits a certain home in Guelph very frequently, ostensibly to study music, but we know better. "Stew" Mitchell is at present at home, 24 Mont St., Guelph. Bill Morwick, attending College of Education this year, and we hear, has been engaged by the Waterdown H. S. board for next fall. Stelle Pettigrew is at home in Guelph. Andy Taylor is at home on the farm, R. R. No. 5, Galt. We hear that "Fisherman" Crosby and Miss E. Shaver, Mac '29, were married recently. Bill Tym is with the City Renderers, Mill St., Montreal.

We have no special news or changes of address to report on other former Year members.

YEAR '23 NEWS

Hutt, Dr. F. B.—University of Minnesota, Dept. of Agriculture, University Farm, St. Paul. Professor of Animal Genetics. Work is mainly with poultry—research with and teaching about. On June 30th, 1930, Ted, true to form, brought home the bacon—Alice Jean Bacon, (now Hutt) of St. Paul. To show what money at par looks like, Ted forwarded a couple of premium American Bills for year funds.
Silcox, W. B.—College of Agriculture, University of Minnesota, attached to the Extension Division and the Division of Agricultural Economics (a two-division product of a two-division year). Is still single, so finds time to discuss dairy matters with farmer audiences. I believe he has his Ph.D. from Wisconsin.

Hutt calls attention to recent Reviews—incidentally as an ex-editor he is still a booster for it—listing C. L. Carr as Chemist of the Freeman Dairy Co., Flint, Mich.; C. G. Riley, Forest Pathologist for Quebec, C. E. F., Ottawa; R. L. Payne, Fruit Spray Service, Farm Bureau, Middleton, N.Y., and understands that Norm Laughlin has left Yuba City, Cal.

Sorley, Donald—Has safely weathered recently two crisis which we trust will never need be repeated—(1) fine big barn burned last New Years, (2) married, recently, to Miss Hopkins, who changed her place of abode thereby but slightly.

Kinchsular, H. R.—Still at Sudbury Collegiate—has a home kindergarten department of 4 little Kinches born with boxing gloves on.

McMillan, Scotty—With the Willoughby Farm Agency, Toronto.

Bodie, J. R.—Part owner of the Meaford Creamery.

McLeod, J. H.—In Belleville on Entomological work.

Blach, Reg.—Has the sympathy of all the fellows in the death of his mother while on a visit to him from England. At the same time his wife was in the hospital with an appendix operation. Despite his troubles, Reg. writes most interestingly, in part, as follows. "I'm afraid I haven't a lot of news about '23 from these parts. I seem to be almost the sole representative around here. My district covers the Maritimes and the Gaspe Peninsula, but as I spend most of my time in the woods, I do not see the one or two members that do infest these parts. McCharles I saw in Truro about a year ago, looking a little broader even than ever and just as cheerful. Caesar Smith I ran into in Ottawa last February. He was down on a conference regarding Deportations in which he seems to be doing a wholesale business.
We got together for lunch at the Chateau with Jones and Jack Dawson, I forget at whose expense, but it wasn't mine. We also had a night at Jones' house—Jones has not changed except for an air of prosperity which makes him look younger. Jack hasn't changed much either in spite of the fact that he is the father of a family. I have a little girl myself. After leaving O.A.C. I took Masters' and Doctors' work in Forestry and Entomology at Syracuse, N.Y., and worked in North Carolina, Idaho, Wyoming and Montana on forest insect problems. However, two years ago I tore myself away from the Rockies and came down here to take over this Laboratory—anxious to get back over the border again where the beer is cheaper and safer. I have work just now in Cape Breton Island and the Gaspe Peninsula, so anyone who wants a good holiday should come down and look me up, which reminds me that I ran into Doug. Adams last summer in the wilds of Cape Breton. He was casting an optimistic fly into an enticing but depopulated stream which I knew only too well. He and his wife and party came to our camp for supper and we had a lot of fun. I had lunch with Fred Presant and Cecil Fricker in Toronto a year ago, but that's past history. More recent and momentous was a meeting with Evie in Montreal last February. He burst into my room with the breath-taking news that he was about to marry on the following Saturday. Since then I have been able to get no word of him."

Crossgrove, R. F.—Broker, Concourse Building, Toronto 2. To get balances out of the red, Bob, in a recent letter advises as follows: "I have just undertaken the financing of one of the most promising gold discoveries of the past year. On my desk, I have a report on its operation. It would be well worth your while to send for it. You are certainly overlooking one good opportunity if you do not invest in this enterprise." We hope Mrs. Crossgrove has recovered from a rather serious illness, and that Margot, now two, will a few years hence follow her mother's footsteps to Mac Hall.

Marston, Russ.—Doing a mighty good piece of work on corn breeding at the Michigan State College. This is in connection with corn borer control.

Ivyce, D. E. J.—Won a Ph.D. and international fame developing
a new process for granulating honey. Honey by his method can now be processed commercially to a delightfully smooth and creamy consistency that the milk and honey of the good old days never dreamed possible. Dyce is now Master of Bees at the O.A.C. He has a queen of his own, and Ralph is a very live young worker, aged 2.

Blow, Thos. H.—Is very happy to be back in Canada and Guelph again as District Manager for the Ontario Equitable Life Insurance Company of Waterloo.

Andrew, Jack—Two paragraphs from Jack’s letter indicate his retained pleasant conversationalism and his having become imbued with irrepressible Western optimism. “I had a pleasant surprise about a month ago. On going into a restaurant for lunch I met H. A. Derby. Pete and I had not met for several years and needless to say the meeting was very pleasant and there was no lack of conversation. The following day he visited me in the office and we discussed all the old boys who had been omitted on the previous occasion. Though not a member of year “twenty-three,” I believe many of the boys will be interested in hearing something about Cap. Gandier.” Cap. is now in Edmonton in charge of relief in the draught area as administered by the Department of Agriculture. Even the depressing experiences to be met with in assisting destitute people has not been sufficient to deprive “Cap” of his smile. Incidentally, I am pleased to state that the dried out area in Alberta has been relatively small and that in the month of April, 1932, rain fall amounting from one to three inches occurred over the dry area. At present crop prospects in this Province are better than they have been for a number of years.”

Hinrichs, George—Would be glad to have all consider this a personal invitation. “I just finished planting out 20,000 evergreens and shrubs in the nursery, and for sentimental reasons I ordered a few Norway Spruce from E. D. Smith and Sons, of Winona, Ontario, so that I would have some “Canadian born” plants in my collection. I am building a little stone house at the nursery property, where I will live after July 1st, and although it will be a very, very small house there will always be room for year ’23 members and their wives who might do me the honor of visiting me while they are in this part of the country.”
Derby, H. A.—After a few years in Alberta on Dairy work, securing his "Dr.'s" is now Director of Research for the Dairy Corporation of Canada, Ltd., 80 King St., W. Toronto. Is married, has a girl two years old.

George, W. B.—Baldo is still lecturing at the Agricultural School at Kemptville; has been married for a couple of years, and so far has only his wife to support.

Jack Fraser and Mickey Scott complete the galaxy of year '23 luminaries on the Kemptville staff.

Kirkland, Lloyd—Is superintendent of the Toronto Creamery of the U. F. O. at 28 Duke St., Toronto. Mrs. Kirkland and the creamery are his sole responsibilities.

Hillier, Keith R.—Is inspector for the Dominion Seed Branch, gets his mail at 287 Huron St., London. He and Mrs. Hillier are the proud possessors of a model son and a model new home.

Banner, W. K.—Is attending the College of Education in Toronto; gives his address as 130 Hogarth Ave. We presume that the same address will find his wife and his son and daughter—ages unknown.

Pilkey, C. G.—139 Linsmore Cres., Toronto. Cliff is teaching in one of the Collegiates while Mrs. Pilk keeps the home fires burning with the two young sons to help her keep the wood-box filled. The Pilkey smile was a dominant character.

Garner, J. A.—Aubrey is Agricultural Representative for Kent County, located at Chatham. The few evenings he has free he spends with his wife and two young sons.

Presant, F. W.—Is a big noise in the Toronto Elevators Ltd. Like most of the gang has a wife of his own who has for company, little Joan, about two years old.

Horning, H. R.—41 Melrose Ave. Hal has "gone to seed" since setting up his seed store at 52 Peter St., Toronto. He didn't give us his wife's address, but did mention that there were no little Hornings.
Cockburn, W. M.—Trying to show the farmers of Carleton County how to make money with 4c pork, has kept eggs up to 1c a piece at Carp, where he resides. Gordon and Donald are a great help to their mother, atoning for many of the delinquences common to husbands.

Beattie, Gordon—Expects to be in Canada in the summer of 1933 and to participate in the decennial reunion.

Tierney, Jos.—City View, R. R. No. 1, farming.

Rowat, Bill—Manotick, Insurance.

McLean, George—Manotick, General Store.

Graham, Fred—North Gower, farming.

Richmond, A. G.—Politicians cite the possibility of amalgamation of our two major railways. By a single typographical error in our last letter, an even greater transmutation was accomplished. Art is with the Canadian Pacific. Mrs. Richmond is one of London's popular soloists.

Huntsman, C. M.—In his travels on Ontario Poultry Breeding Station work carries a copy of our recent year list and calls on all within range. Truly an act to enthuse an Executive to new efforts in keeping year members in touch with each other.

Smith, J. B.—Paused in his research with eggs not containing the needful “spizzerinkum” to hatch, to be the necessary adjunct in a colorful Easter wedding ceremony in which Miss Moses, of Mitchell, played the role of beautiful bride. Welcome to the latest year '23ite and will the somewhat extensive world family of Smiths move over to make room for the new member!

Seun, Elgin—And his wife and child were crashed into while stopped on the highway to assist another motorist. All are making fair recovery from most painful and distressing injuries.

Booth, Harold E.—Box 377, Charlottesville, Va., doing Dairy Herd Improvement Work.
Gray, E. Les.—Department of Agriculture, Edmonton, Alberta, doing splendid work as Field Crop Commissioner in that Province. In his home sphere boasts a wife and two children.

Alexander, V. A.—R. R. No. 1, St. Catharines, proprietor of Niagara Nurseries. On highway, three miles west of the city—married, one son.

Blaney, N. M.—2451 Sterling Place, Altadena, Calif.
Brink, J. E.—Principal, Sydenham High School, moved from Iroquois at Christmas.

Cole, H. A.—Assisted last winter with the Lincoln County Three Months Course—popular with both classes.

Featherston—Plant Inspection Office, Niagara Falls, Ont.

Murray, H. R.—We listed him twice in our last letter, and were still a jump behind—is Associate Professor, Hort. Department, Macdonald College, in charge of Research in Olericulture.

McCallan, S. E. A.—Boyce Thompson Institute, Yonkers, N. Y. Research on fungicidal action of Lime Sulphur.

Rutherford, A. N.—Combines with his farming operation, real estate, trucking and tourist accommodation.


McDermid, J. L.—Says "the 1933 reunion sounds good to me, and I would do my darnest to attend." He was in Guelph in September, 1931, for the first time since graduation, but would enjoy a visit much more with the old gang back. Mac exemplifies the adaptability of the year by occasionally giving extension talks from the Baptist pulpit.

North, F. G.—Last reports state has left position in Chatham and interested in locating water power grist mill proposition.
Snyder, Jos.—Was located at Lambeth, near London, with a road construction machinery Co., but now is in partnership in Goderich Dairy, Goderich.

Nicholson, W. G.—Same location as previously listed but address changed to Underwood. Farming and poultry raising. Provincial vice-president of the United Farmers of Ontario.

Snyder, G. R.—Graduated with '28, doing fertilizer extension work with the Chemistry Department, O.A.C., Guelph.

Collier, S. G.—Carstairs, Alberta—40 miles north of Calgary. Managing the Carstairs Branch of the Central Creameries of Calgary. Married with two children, Shirley Grace, aged two, and Kenneth Gordon, a 1932 arrival. Live in the house by the side of the road, but if any '23 men are up that way they are to “go in” not “go by.”


Goudie, E. B.—Seaforth; married; dairy farming with whole milk route in the town.

Fricker, H. C.—With the Book Department, T. Eaton Co., Toronto.


Thompson, A. F.—Chemist, Lindsay, Ontario.

Wood, T. J.—Lakefield; farming in summer, teaching in winter.

Beattie, D. M.—Dairy and Cold Storage Branch, Dominion Department of Agriculture, 59 Victoria St., Toronto—stationed there since 1929 as Dairy Produce Grader. One daughter.

Joss, S. L.—Secretary of the United Dairymen’s Co-operative. Belleville. Has a bouncing baby son which in due time will be tried out as centre half.

CHANGES IN THE GRADUATE LIST

'09  W. R. Thompson—Is Assistant Director of the Imperial Institute of Entomology. Address: Farnham House, Farnham Royal, Bucks, England.

'10  J. G. Lloyd-Jones—Deceased.

E. Robinson—Is farming at Courtenay, Vancouver Island, B. C.

'11  R. B. Coglan—Is a physician and surgeon in Raymond, Washington, U. S. A.


F. D. Shaver—Is manager of Glenorchy Farm, R. R. No. 3, Toronto, Ont.

'17  A. A. Redmond—Is doing Lab. work in a milk plant in Chicago. Address: 4125 North Kostner Ave., Chicago, Ill., U. S. A.

'21  R. M. Lewis—Is a graduate student at Cornell University. Address: Slaterville Rd., Ithaca, New York, U. S. A.

'22  A. E. Armstrong—Poultryman for the Quaker Oats Co., Exp. Farm, R. R. No. 1, Libertyville, Ill., U. S. A.

G. N. Emigh—Deceased May 23rd, 1932.

J. W. Thompson—Is teaching at Nutana Collegiate, Saskatoon, Sask.

'23  N. M. Blaney—Is Director of Statistical Research for the Asphalt Institute 200 Sansome St., San Francisco, Calif., U. S. A.

T. H. Blow—Is District Manager for the Ontario Equitable Life, 39 Quebec St. West, Guelph, Ont.

W. H. Boucher—Is a Dairy Recorder with the Sask. Dairy Branch (not a Graduate), Melfort, Sask.
E. S. Manning—Is Department Supervisor, Division of Chevrolet Motor Co., Flint, Mich., U.S.A.

24 O. E. Cameron—is agent for the Sun Life Assurance Co., Kitchener, Ont. Address: 32 Bingeman Ave., Kitchener, Ont.

D. R. A. Wharton—Is living at 31 Gramercy Park, New York City, N.Y., U.S.A. Completed his Ph.D. at University of Chicago, 1929.


26 J. M. S. Lang—Is a Junior Assistant at the Scottish Plant Breeding Station, Edinburgh, Scotland.

29 A. Bartlett—Tree Specialist with Cedar Vale Tree Experts, 1130 Bay St., Toronto, Ont.

H. L. Ford—Is a Swine Grader with the Dominion Live Stock Branch, Peterboro, Ont.

H. Watson—Golf construction work with Stanley Thompson, Star Building, King St. West, Toronto, Ont.

30 A. N. L. Butler—Is a Graduate student in the Department of Plant Breeding, Cornell University, Ithaca, N.Y., U.S.A.

31 W. J. Cowie—Has returned to Wales. Address: West Grove, Merthyr Tydfil, Wales.

D. E. Gibson—Is farming at R. R. No. 4 Bowmanville, Ont.

S. Trevor—Bacteriologist, C-o Institute of Public Health, London, Ont.

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NAMES, ADDRESSES AND OCCUPATION OF GRADUATES

1932

J. W. Becker—Chemistry Department, O.A.C., Guelph, Temporary Assistant.

J. H. Boyce—Division of Forage, Crops, Central Experimental Farm, Ottawa, Ont., Assistant.

L. C. R. Briggs—R. R. No. 1, Lyn, Ont.

F. A. Burwell—1820 Roys Ave., Elkhart, Indiana.

C. H. Castell—69 Huntley St., Toronto, Ont.

H. C. Christensen—Hamilton Creameries Ltd., Hamilton, Ont. Superintendent.

H. K. Claus—Ridgeway, Ont. Farming.

H. W. Cole—Division of Extension and Publicity, Central Experimental Farm, Ottawa, Ont. Extension Work.

M. A. Colville—Beaverton, Ont. Farming.

A. G. Douglas—Mount Forest, Ont. Farming.

E. J. Doyle—Chemistry Department, O.A.C., Guelph. Temporary Assistant.

W. R. Dunlop—Lindsay Creamery Co., Lindsay, Ont. Head Buttermaker.

R. J. Dunsmore—R. R. No. 1, Barrie, Ont. Farming.

S. Finbow—Beamsville, Ont. Farming.

M. K. Funston—Poultry Department, O.A.C., Guelph. Graduate Student.

W. J. Garnett—Horticulture Department, O.A.C., Guelph. Assistant.


F. Gfeller—Cereal Division, Central Experimental Farm, Ottawa, Ont. An Assistant.

T. W. Gourlay—Industrial Farm, Burwash, Ont. Instructional work.

S. Henry—Animal Husbandry Department, O.A.C., Guelph, Ont. Graduate Student.

A. H. Jones—Apt. 1, 53 Kenwood Ave., Toronto, Ont.


R. H. Keith—67 Glencairn Ave., Toronto, Ont.

E. W. Kendall, Jr.—Entomology Department, O.A.C., Guelph. Temporary Assistant.


R. B. Malkin—Box 302, Barrie, Ont.

J. D. McConachie—Grimsby, Ont.

E. N. Needham—R. R. No. 4, Stouffville, Ont. Farm Manager.

C. A. Neil—R. R. No. 8, Parkhill, Ont.


J. H. Pettit—Poultry Department, O.A.C., Guelph. Graduate Student.

W. L. Putman—Grimsby, Ont.

H. E. Richardson—Canada Packers Ltd., Walkerton, Ont. Creamery work.


R. C. Rosborough—Chemistry Department, O.A.C., Guelph, Ont. Temporary Assistant.

A. M. Ross—Division of Forage Crops, Central Experimental Farm, Ottawa, Ont. An Assistant.

M. D. Shearer—Animal Husbandry Department, O.A.C., Guelph, Ont. Experimental work.

S. A. Simmons—39 College Ave. W., Guelph, Ont.


W. C. Wallace—Belle River, Ont. Farming.
THE O.A.C. REVIEW

A. M. Weir—Animal Husbandry Department, O.A.C., Guelph, Ont.
Graduate Student.


W. J. Wilson—C-o Quinte Milk Products, Wellington, Ont.

MAC ALUMNI NEWS

"RECENT AND OTHERWISE"

'24 Evans, Ruby—Married and is now Mrs. R. L. Demaray, Cuba.


McCormac, Maie—Married, and is now Mrs. H. Beladeau, Montreal.

McCrae, Edna (Teddy)—Is now Mrs. Mark J. Morton, and is busily engaged in operating the Royal Grill, Guelph. Proud possessor of a daughter.

Raymond, Dorothy—At home, Brantford.

Tucker, Florence (Tucky)—Is now Mrs. Wilbur Johnston, Ottawa.


Johnson, Lila—Is now Mrs. Arlington Fleet, Montreal.

McKeil, Margaret (Babe)—At home, 51 Lyon Ave., Guelph.

Silvertliorn, Edna (Tiny)—Is now Mrs. L. Meredeth, Toledo.

'26 Clapp, Mabel—Is now Mrs. F. O. Lewis, St. Thomas.

Clark, Jean—Married to Mr. W. Hamilton of Guelph.

McCarthy, Lillian—Is now Mrs. O. Ziegler, College Heights, Guelph.


Rae, Agnes—Is now Mrs. J. G. Wharry, Boston.

Seldon, Marion—Is Mrs. J. M. Roxborough, Simcoe.

'27 Loeliead, Margaret—At home, Maple Ave., Brantford.

Ritchie, Leone—Is now Mrs. L. Snyder, Brantford.
Trusdale, Laura—Married, and is now Mrs. L. Young, Brantford.

'29 Blackwell, Minnie—Formerly dietitian at Newport Hospital, married to Mr. Joseph Arthur Ober, Jr., of Boston, September 5th, 1931.

Hislop, Inga—Review Rep. of '29. Dietitian Royal Island Hospital, Kamloops, B.C.

Peterson, Emma—At home in Romola, following the closing of the Agricultural College at Raymond, Alta.

Reid, Lily—Teaching Home Economics at Macaulay School, Edmonton.

Smith, Betty—Dietitian in a Hospital in Alexandria, Virginia.

Vicars, Nora—Assistant Dietitian at Tranquille Tubercular Sanitarium, B.C.

'31 Barber, Mrs. Annie—Superintendent of Macdonald Hall.


Bovair, Evelyn (Billie)—Taking Pupil Work at Toronto General Hospital.

Chatwin, Ina—Attending U. of T.

Couse, Willa—With Simpson's Arcadian Court, Toronto.

Crawford, Ruth—Assistant Dietitian, O.A.C.

Hewitt, Grace—Attending U. of T.

McMillan, Marg.—At home.

McQuillan, Marg.—Attending U. of T.

Moore, Alice—Taking Pupil Work in Philadelphia.

Laidlaw, Margery (Peggy)—At home, Lindsay.

Rowe, Freda—Taking Pupil Work in Toronto General Hospital.

Rollins, Augora—At home, Sarnia.

Webster, Leah—Assistant Dietitian, McMaster University.
CHANGES IN THE GRADUATE LIST

'98 M. N. Ross, is landscape architect in Arden, N. Carolina.

'08 L. A. Bowes, is living at 454 Walden St., Vancouver, B.C.

'17 H. Clark, is farming at Manilla, Ont.

'18 J. N. Timms, is with the Detroit City Gas Co., Detroit, Mich. His address is 1731 Hubbell Ave., Detroit, Mich.

'21 D. E. Arsenault, is an Inspector of the Dairy Produce for the Dominion Dairy Branch, 99 Dalhousie St., Quebec.

'22 A. G. Clarry, is living at 191 Annette St., Toronto, Ont. W. J. Lowrie, is teaching at the Chatham Collegiate, Chatham, Ont. J. C. St. John, will be teaching in September at the High School, Norwich, Ont.

'23 W. K. Bunner, has completed his course at the Ontario College of Education at Toronto. His present address is C-o Rev. W. A. Bunner, Bowmanville, Ont. G. E. R. Hervey, is Entomologist at the New York State Experiment Station, Geneva, N.Y. W. B. Silcox, is on the Staff of the Department of Agricultural Economics, University of Minnesota, St. Paul, Minn. H. E. Young, is a chemist with the Canadian Canners, Ltd., Hamilton, Ont.

'24 J. M. Hamilton, who secured his Ph.D. from the University of Wisconsin, is Plant Pathologist at the New York State Experiment Station, Geneva, N.Y.

'26 F. K. B. Stewart, is with the Ontario Fruit Branch. His address is 18 Market St., Hamilton, Ont.

'27 D. F. Putnam, is a Research Assistant in the Dept. of Botany, University of Toronto, Toronto, Ont.

'29 A. Dixon, will be teaching at the High School in Hagersville, Ont., in September. A. L. Harrison, is a Graduate Student in Plant Pathology at Cornell University. He has a Fellowship at the New York State Experiment Station, Geneva, N.Y. F. D. Sawyer, will be teaching in September at the Galt Collegiate, Galt, Ont.

'31 E. A. Carter, is with the Canada Packers Ltd., Toronto, Ont.
W. V. Drury, is travelling for F. W. Fearman Co., Hamilton. His address is Box 141 Allandale, Ont.
W. V. Morwick, will be teaching in September in the High School, Waterdown, Ont.
E. F. Walker, will be teaching in the St. Catharines Collegiate, St. Catharines, Ont., in September.

'32 L. C. R. Briggs is in Dairy Work with the Canada Packers, Clinton, Ont.

GRADUATES WHOSE ADDRESSES ARE UNKNOWN

Note.—Will anyone knowing the addresses and occupations of these graduates, please communicate with the Registrar, Ontario Agricultural College, Guelph.


MARRIAGES

The marriage took place at Shelburne on June 18th of Miss Annie Louise Lindsay, daughter of Mr. T. C. Lindsay, and Mr. W. Morris Jelly, formerly of year '32.

DEATHS

GORDON MARTIN EMIGH—1898-1932

Gordon Martin Emigh was born in Burgessville in 1898, and left his home for the O.A.C. in the fall of 1918, graduating in the spring of 1922.
Gordon was a keen student, and an active member of his year. During his Freshman year he won the scholarship awarded for proficiency in Agriculture, Horticulture and Poultry and, in his second year his varied interests by acting capably as Secretary of the Apiculture Club.

After graduation Gordon returned to Burgessville, near which centre he became a successful fruit grower and was at the time of his death President of the Burgessville Fruit-Growers Association.

Besides his parents, two sisters and a brother (an Associate of the O.A.C.), he left to mourn his loss, his wife and three children.

**A. S. HILL**

On Friday, May 27th, Year '31 sustained an irreparable loss through the untimely death of A. S. Hill, affectionately known to us as "The Weed-Cop." Archie was born at Sealey's Bay in 1909, and received his preparatory schooling in that district. He came to the O. A. C. in the fall of 1927 to join Year '31, and whose triumphs and tribulations he delighted in sharing. His interest in nature and its kindred science culminated in his entering the field of Botany in which he specialized. His enthusiasm and joy in his work ensured his success, and upon graduating he was highly recommended by his Department and immediately received an appointment with the Dominion Government as Junior Plant Pathologist. Archie never failed to voice his satisfaction in serving his employers.

Archie is one of whom it can be said "once a friend, always a friend." His personality was such that his room was always a place where one could be sure of an understanding welcome. Archie will be remembered at all times when members of '31 get together.

Year '31 extends their sincerest sympathies to Archie’s family and all who knew him.

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**ALUMNI**

**YEAR '32**

The '32 Alumnae committee request that each member of the year write to the Secretary-Treasurer, H. W. Cole, Experimental Farm, Ottawa, giving the necessary information to make possible a news letter which may be mailed August 1st.

Come on '32! Let's hear all about it and make our first news letter a real success.
The O.A.C. Review is published by the students of the Ontario Agricultural College Students' Publishing Association for ten months of the year.

STAFF 1931-1932

Editor-in-Chief—N H. Wass. '33.
Board of Directors—Prof. G. N. Ruhnke, '23, (Faculty); Mr. C. D. McArthur, '21, (Alumni); W. J. Garnett, '32, (Advisory Editors); F. K. Anderson, '33, B. E. Twamley, '33, (Associate Editors).

DEPARTMENTAL EDITORS


Business Manager—Mr. N. S. Northmore.
Advertising Manager—W. L. Whyte, '33.

CORRESPONDENCE.

Subscribers can have the Review forwarded to them on application to the Business Manager. They are requested to notify him at once, on a change of address, as otherwise they cannot expect their copies to reach them.

The subscription is $1 annually to anywhere in the British Empire or the United States, $1.50 to residents in foreign countries. A special rate of $5 for six years is allowed.

All subscriptions and complaints concerning the despatch of the Review should be addressed to the Business Manager. The Editor cannot reply to communications on such subjects.

TO CORRESPONDENTS

Correspondents are requested to write clearly on one side of the page only.

The Editor invites criticisms and suggestions.

The Editor cannot accept letters in which the real name of the author is not enclosed, even if not for publication. All contributors should enclose with their MS. an address which would find them in case of need. If they do not do so they must be prepared to find considerable alterations in their productions.

The Editor is not responsible for the opinions of his correspondents.
The Macdonald Institute Graduation Exercises were held in Memorial Hall on Friday afternoon, June 17th, 1932. Dr. G. I. Christie, President of the O.A.C., presented certificates and diplomas to one hundred and one students. Eight students who received the Macdonald Institute Teacher’s Certificate in Home Economics, were presented by Miss Mayme C. Kay. Fifty-seven students who received the Macdonald Institute Associate Certificate were presented by Mr. H. D. Branion. Nine students who received the Macdonald Institute Management Certificate were presented by Miss Jean Millar, and twenty-seven students who received the Macdonald Institute Homemaker Diploma were presented by Dr. Annie Ross.

Mary R. Wither, of the Normal Class, was awarded the Jean Clark Bradley Memorial Scholarship, the presentation being made by Miss Hilda Mather, 31.

Mary L. Jarvis, of the Institutional Management Class, was awarded the Students’ Council Scholarship, the presentation being made by Mary E. Wither, President of the Students’ Council.
Helen C. Clark received the Macdonald Institute Alumnae Prize for the student taking the highest standing in the Normal Class, the prize was presented by Mrs. D. B. Shutt, Vice-President of the Macdonald Institute Alumnae.

M. Elizabeth MacBeth received the Macdonald Institute Alumnae prize for the student taking the highest standing in the Associate Class, the prize was presented by Mrs. R. D. Fowke, Secretary of the Macdonald Institute Alumnae.

Gladys Wilson received the Macdonald Institute Alumnae prize for the student taking the highest standing in the Institutional Management Class, and Helen M. Gallagher received the Macdonald Institute Alumnae prize for the student taking the highest standing in the Homemaker Class, these prizes were presented by Mrs. G. B. Whiteside, Treasurer of the Macdonald Institute Alumnae.

Rev. A. J. McGillivray, of Knox Church, Guelph, addressed the Graduating Classes. Three other items on the programme which were appreciated very much were—"A Farewell," sung by Prof. Blackwood, the march played by Mrs. K. Fuller, and the Valedictory address given by Irene Davis of the Associate Class.

Col. the Hon. T. L. Kennedy, Minister of Agriculture for Ontario, and Mr. Geo. Lee, North Bay, Chairman of the Temiskaming and Northern Ontario Railway Commission, were honoured guests for the occasion.

A Garden Party was held on the Macdonald Campus immediately after the graduating exercises.
ATHLETIC NEWS

F. G. Baldwin

As part of the programme for Alumni Day, which was held at the College on Saturday, June 25th, an interesting ball game was played on the campus.

Football is getting under way early this year, a game having been staged on the campus on June 30th, by two Guelph teams.

The Poultry Department ball team has the makings of a first-class team, although they were beaten in their game at Zimmerman.

The O.A.C. is well represented on the Senior Guelph hardball team, with Gordon McNeill, Pollock and Richardson.

This year the athletic schedule for the season 1932-33 has been sent out to graduates and undergraduates throughout the country early in July.

Mac. Institute Scholarship Winners, 1932.
Golf

By William Martin

The growing popularity of the "old and ancient game" among the students and Faculty of this college gave us the idea that an article on the subject would be timely and interesting. As this issue of the Review is termed the "Summer Number", the article is at least seasonable. Our thanks are due to Mr. Martin, who is the pro. at the Cutten Golf Club, for this excellent contribution.

Do you play golf? Do you intend to take up this interesting game? The time-worn slogan "It pays to play" holds good especially where golf is concerned. Far from being a so-called "Old Man's game", golf is rapidly forging to the foreground as the national source of recreation for the younger generation. Athletes in all other lines of sport endorse it enthusiastically as a body builder and a source of mental relaxation. This game calls for a co-ordination of mind and muscle demanded in few other sports. It is not a game where mere brute strength is required; it calls rather for speed and suppleness combined with absolute muscular control. The golf swing as executed by an expert is a series of physical actions, blending so smoothly that the maximum of strength and speed is attained at the moment of impact with the ball. To a casual observer very little physical effort seems to be used. In reality, practically every muscle in the body plays its part in the swing.

Golf is practically the only game in pursuit of which the player runs up against Mother Nature in all her whims and vagaries. To a seasoned golfer the course is never the same on two consecutive days. It may be because of the direction of the wind, the prevailing weather conditions, or the condition of the ground. Overcoming these changeable conditions brings added zest to the game, quoting for example the man who can overcome the added handicap of a very wet course and a stiff breeze.

The ultimate measure of excellence in golf is the score card, and while the player struggles to improve his technique, and to learn how to hit the ball with more power and accuracy, he does so because he wants to be able to write down threes and fours on the score card.
instead of fives and sixes. Every golfer measures his ambitions in
terms of his score, that is, the ability to break 100, or 90, or even 80,
for the eighteen holes. Failing time and again to do this, they put it
down to lack of knowledge in hitting the ball. In ninety cases out of
one hundred, this assumption is incorrect.

To be able to recover from a bad situation without loss is of more
value than the ability to avoid making the mistake which put your ball
there. This is the outstanding difference between the expert and the
average golfer. Where the expert uses his head and generally recovers
without much loss, the average golfer will add two, and sometimes
three strokes at each hole by expecting to accomplish too masterly a
shot, instead of playing a simple shot. There should be a definite
purpose in making every stroke, and that is, to make the following
shot a simple one.

Touching lightly on the psychological side of golf, it would seem
that 90% of all golfers develop a “fear complex” on the course. It
is a mental attitude inviting inevitable disaster to the shot, and must
be overcome before definite progress can be made in improving the
playing ability. This fear complex, or complete lack of self con-
dfidence is particularly noticeable on short shots when the player strikes
the ball, or behind it, with a short jerky hit. The player must over-
come this attitude and play all his shots boldly and with confidence,
tempered with discretion. The improvement will be at once noticeable,
and proves that in golf, as in any other game, confidence begets com-
petence.

A final word! Getting started right in golf is the only short cut
to a good game. After that it is just a matter of practice.
This is a Good Habit

Eating a bar of Neilson's Jersey Milk Chocolate every day—about 4 in the afternoon—is a good time—will give you that extra energy to finish the day's work with a swing. Vigor and good health are in this delicious chocolate and besides everyone loves it.

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