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THIRD ANNUAL ANNOUNCEMENT

... OF THE ...

NOVA SCOTIA

School of Horticulture.

CIRCULAR OF INFORMATION.

WOLFVILLE, NOVA SCOTIA.

1895-96.

“THEORY WITH PRACTICE.”

KENTVILLE, N. S.
ADVERTISER BOOK AND JOB PRINTING OFFICE,
1895.

CALENDAR.

1895.

Friday, Nov. 1st. Enrollment of Students.
Monday, " 4th. First Term begins.
Tuesday, " 5th. Recitations and Lectures begin.
Thursday, Dec. 19th }
Friday, " 20th } Terminal Examinations.

1896.

Wednesday, Jan. 8th Second Term begins.
Thursday, Feb. 6th }
Friday, Feb. 7th } Interterm Examinations.
Monday, April 28th. }
Tuesday, " 29th. } Final Examinations.
Wednesday " 30th. }
Thursday, May 1st. Closing Exercises and Annual
Dinner.
Monday, Nov. 3rd. Fourth Year, opening of School.

DIRECTION.

All correspondence concerning School Matters will be promptly attended to if addressed to

E. E. FAVILLE, DIRECTOR.

Wolfville, N. S.

OFFICERS OF SCHOOL.

EXECUTIVE COMMITTEE.

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|----------------------------|---------------------------|
| W. C. ARCHIBALD, Chairman. | J. W. BIGELOW |
| COLIN W. ROSCOE | R. W. STARR |
| HENRY CHIPMAN | S. C. PARKER |
| R. S. EATON | E. E. FAVILLE, Secretary. |

MEMBERS OF COUNCIL BOARD.

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|------------------------------|-----------------|
| CHAS. BURBILL..... | Weymouth. |
| HON. GEO. LAWSON, LL. B..... | Halifax. |
| J. M. ROSS, LL. B..... | Pictou. |
| HON. JAMES D. SPERRY..... | Petite Riviere. |
| HON. J. H. SINCLAIR..... | New Glasgow. |
| GEO. A. COX..... | Shelburne. |
| JOHN DONALDSON, B. A..... | Canard. |
| HON. J. M. MACK..... | Liverpool. |
| ARTHUR KENDALL, M. D..... | Sydney. |
| JACOB HART..... | Whycocomah. |
| PERCY BLANCHARD..... | Baddeck. |
| CHAS. E. STARR..... | Boston. |
| C. B. WHIDDEN..... | Antigonish. |
| CHAS. E. BROWN..... | Yarmouth. |
| HON. D. W. DIMOCK..... | Truro. |
| ALFRED PUTNAM..... | Maitland. |
| G. B. MCGILL..... | Middleton. |

EXECUTIVE COMMITTEE N. S. F. G. A.

J. W. BIGELOW, President.
C. R. H. STARR,
G. E. DEWITT,
HENRY CHIPMAN,

S. C. PARKEE, Secretary.
JOHN STARR,
A. MCN. PATTERSON,
GEO. B. MUNROE, Treas.

MEETINGS.

The annual meeting of the Council Board is held the second week in January, also a second meeting in May, at close of school year. The Executive Committee of Board meets the first Friday of each month and other meetings will be held when occasion requires.

GENERAL STATEMENT.

The Course in Horticulture and its kindred branches is designed to meet the wants of those who are desirous of excelling in the profession of farming, orcharding, floriculture and science, who feel the need of more and better preparation for their work. It is now a forgone conclusion concerning the value of advanced definite knowledge regarding Agriculture to those who follow farming as a life work or as a speculation; equally true is this observed in fruit growing. A trained mind on the farm is as essential as in any vocation. Education there has proven to pay, as else where in life. The course of study upon inspection contains a thoroughly practical and scientific course, that the young man cannot afford to miss, no matter in what line he may be working. The question is can he afford to miss it. Tuition is free, making the expenses exceedingly low, so that any energetic young man can if he chooses find means of securing funds necessary to enable him to take the course of two years; the increase, each year, of equipment, apparatus and appliances adds greatly in facilitating thorough work in details. The months during which the school is in session afford an opportunity for students to attend when they can be spared from the farm. The natural facilities and excellent green house equipments make the practical work easy and the field practice carried on invaluable.

SITUATION.

The School occupies a healthful and delightful location, being situated in Wolfville (a Town of about fifteen hundred inhabitants) in Kings County, one of the chief fruit counties of the far-famed Annapolis Valley, the great fruit belt of Nova Scotia, where orchards and gardens are found in all stages of growth and development. The railroad facilities for reaching Wolfville from all parts of the Province are excellent. The Dominion Atlantic Railroad run several trains daily connecting with trains and boats at important points. The School is situated on University Avenue, facing Acadia University, the Campus and the Town, affording also an excellent view of Minas Basin and Cape Blomidon in the distance, with gardens, orchards and fruit plantations in the immediate vicinity. It is thus the finest location in the Province for Horticultural study and work.

SCIENCE CLUB.

The Science Club in connection with the School hold their meeting each Thursday Evening and serve to help students to impart information as well as the receiving of it. The Club is operated by the students, practical and scientific questions are placed each night under discussion and a program is carried out in the way of papers, addresses, illustrated experiments etc. A number of valuable lectures will be given by members of faculty and others upon special topics. All students are asked and advised to join this society. Productions of merit are published in some of the leading newspapers of the Province.

EQUIPMENT.

In and about the Institution may be found the library, conservatory, orchards, gardens, laboratory and Manual Training Hall.

LIBRARY.

In the School library may be found the leading Horticultural literature and kindred branches selected with great care. Among the many volumes may be found:—

Nicholson's Volumes, Illustrated Encyclopedia of Horticulture.
Darwin's Volumes, Domesticated Plants and Animals.
DeCandolle's Origin of Cultivated Plants.
Downing's Fruit Trees of America.
Marsh's Earth as Modified by Human Action.
Storer's Volumes of Agricultural Chemistry.
Gregory and Harris' Works on Fertilizers.
Johnson's How Plants Grow.
Johnson's, How Plants Feed.
Fuller's Propagation of Plants.
Barry's Fruit Garden.
Freno and Fuller's work on Forestry.
Downing and Kemp's works in "Landscape Gardening."
Rawson's Market Gardening.
Warings' Draining for Profit.
Grape Culture, by A. S. Fuller.
Harris on Insects.
Weed on Insecticides and Fungicides.
Emerson and Flint's Manual of Agriculture.

White's Cranberry Culture.
Sempers On Fertilizers.
Grenier's Practical Chemistry.
Bailey's Cross Breeding and Hybridizing.

Among the other works in the library collection may be found numerous treatises on the scientific and practical phases of Orcharding, Botany, Geology, Chemistry, Zoology, Entomology, with works on Horticulture by such eminent men as, Strong, Thomas, Lindly, Johnson, LeConte, Henderson and others; also a large number of files of the important Horticultural and Botanical periodicals may be found. In addition there are over thirty Horticultural periodicals from all parts of the world. Reports from Washington, D. C. and the various Experiment Stations throughout the United States are kept on file, affording a vast fund of information.

DONATIONS TO LIBRARY ACKNOWLEDGED.

Mrs A. H. Johnson, Entomological Society Ontario, Prof. S. B. Green, R. W. Starr, Annie Johnson, C. E. Starr and J. W. Bigelow.

CONSERVATORY.

The green house in connection with store room and pits afford excellent opportunities for commercial nursery practice in fall and winter care of nursery stock. It serves as an aid in the study of vegetable forcing, germination of seeds, care of plants, development of insects, study of their habits and their treatment among green house plants. A laboratory with space for students to work is used for instruction in propagation of plants, pollination and many green house operations.

ORCHARDS AND GARDENS.

There are accessible orchards and gardens near the buildings, containing all the fruits that thrive best in the various parts of the Province in considerable variety and stages of growth, sufficient to illustrate methods of cultivation. Here, practical work of transplanting, planting, spraying, pruning, budding and grafting is carried out, and ornamental shrubs studied and treated. Nursery grounds are attached with root cellar, work room, etc., where care of nursery stock is taken up. A portion of the grounds is set aside for vegetable and flower gardening where practical work in market gardening is

illustrated with hot beds and forcing house. Floriculture made a study, with a large variety of plants for illustration, over 300 different varieties are used, among which are a number of rare exotic plants. The grounds surrounding the School, were laid out by Superintendent Powers of the Halifax Gardens, and when completed will be the Model Garden of the Province. The opportunity for landscape work is afforded. A competent gardener is kept in charge of grounds and building.

LABORATORIES.

The laboratories for use of students are equipped with apparatus, making it possible to carry on a large range of experiments in Chemistry of soils, plants, etc. Practical Chemistry may be made a specialty. Botany work in laboratory is carried on chiefly by means of a set of microscopes, studying fungi, plant structure, bacteria, insects etc. Special attention is given to the study of "smuts," "mildews," "black spot," "black knot," and all destructive fungi. This work becomes the basis of class room work.

In addition we find a museum which contains many collections of interest in the way of native woods herbarium photographs used in lectures, charts and specimens in a large variety to illustrate different subjects, preserved specimens of different fruits, a large collection of insects both injurious and beneficial.

MANUAL TRAINING.

Students are enabled to take the work in Manual Training Hall, filled up with drawing rooms for designing, rooms for carpentry and blacksmithing so arranged that all students become readily acquainted with proper use of tools, construction of buildings and the many needful requirements to be met in farm work. STUDENTS CANNOT AFFORD TO MISS IT.

ADMISSION AND CLASSIFICATION.

The School is open for the admission and classification of all students above the age of fourteen years, possessing a good moral character. Those who are desirous of taking the full course must give evidence of a knowledge of the branches taught in our common schools. Examinations will be grant-

ed upon application, or certificates from institutes meeting the requirements will be taken. Tuition is free to all students.

COURSES OF STUDY.

There are two courses of study. A two years' course leading to a proposed degree and a special course.

The two years' course is composed of the first and second years' work of the school. Each school year is divided into two terms, or periods of three months each. The first year, as may be seen by an inspection of the course, comprises the fundamental or foundation work of a broader knowledge of all the subjects relating to horticulture treated in this year. Principles are thoroughly mastered and their applications enforced by practical work. Certificates of proficiency are granted for this year's work.

In the second year the work which is of a more advanced character also combines theoretical and scientific study with experiments and practical illustrations.

The second, or special course, is arranged for those students who are in possession of a large part of the practical knowledge of Horticulture but feel the need of a more thorough knowledge of its underlying principles and of the more improved methods. Students in this course have the privilege of selecting their work. In these courses optional studies as a necessity are granted but no Horticultural study can be omitted. A large number of students take this course each year.

FIRST YEAR,

FIRST TERM.

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| HORTICULTURE. (See Note A). | PHYSICAL GEOGRAPHY. (Note E). |
| LABORATORY PRACTICE. | MANUAL TRAINING. |
| ENGLISH, | MATHEMATICS. |
| BOTANY. (Note B). | DRAWING. (Note D). |
| ELEMENTARY CHEMISTRY. | |

NOTE A.—**Horticulture.**—Lectures on fruit culture, methods of pruning, training, planting; discussion of varieties of plants; preparation and care of seeds during winter; methods of planting; shipping of trees and plants. Practical work in identifying varieties of trees and fruit, with practical classi-

fication. Work in winter care of fruit trees and small fruit, covering the work of mulching, cutting scions, and treatment of them in root cellar. Indoor or winter grafting in grafting rooms, etc.

NOTE B.—**Botany**.—Since botany treats of plants existing in nature, and horticulture of their improvement, this science readily becomes the basis of all work in horticulture, and a knowledge of this branch is necessary to the frame work of the subject, treating of the formation of root, stem, leaf, pollination of flowers, dissemination of seeds, etc.

NOTE C.—**Physical Geography**.—This study treats of the elevation of land, its adaptability for fruit culture, effect of ocean currents, climate, winds, storms, etc., on vegetation; causes of rain, snow, dew, &c.

NOTE D.—**Drawing**.—Drawing is taught in the first term of the first year, the aim being to fit the student to illustrate laboratory work in botany, especially all microscopic work, and to design plans of orchards, greenhouses, etc.

SECOND TERM.

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| HORTICULTURE. (Note E). | BOTANY. (Note H). |
| LABORATORY PRACTICE. | LABORATORY PRACTICE. |
| CHEMISTRY. (Note F). | SURVEYING. |
| LABORATORY PRACTICE, | INJURIOUS INSECTS (Note I). |
| SOIL DRAINING. (Note G). | MANUAL TRAINING. |
| MATHEMATICS | ENGLISH. |

NOTE E.—**Horticulture**.—Treating of methods of cultivating soils; seed sowing—transplanting and planting of trees and small fruits; out-door grafting, budding, cross-fertilization of flowers. Best methods of spraying fungi and insects. Practical work in the field, pruning, grafting, application of commercial fertilizers at time of planting, preparation of ground for plants, in fact, putting into practical use knowledge obtained during first term.

NOTE F.—**Chemistry**.—Student becomes acquainted with scientific experiments of such a nature as to afford a knowledge of this science as applied to plant and animal economy. A study of oxygen, nitrogen, hydrogen etc., and their combinations and uses for plants and animals. Discussions of reagents used in the detection of certain substances in the materials of plants, soil, etc. A complete knowledge of form-

ation of acids, bases, salts, gases, etc. Preparation of fungicides and insecticides.

NOTE G.—Soil Drainage.--This study takes up the various tests for the need of drainage, practical effects of draining land, calculating depth of drains, position of main and laterals, laying tiles, map drawing, showing location of tile in fields drained, practical field work in spring, draining orchards, running levels, layout system of drains etc.

NOTE H.—Botany.--This subject continued with more practical application. Sap circulation, nomenclature, fixation of names, origin of plants, history, development, etc. Parts of flowers and plants distinguished, discussed and studied.

NOTE I.—Injurious Insects.--Entomology in this connection is treated in an elementary way by means of lectures on the common insects, their habits, treatment, etc.

In the first year optional studies may be taken but no horticultural study can be omitted.

SECOND YEAR.

FIRST TERM.

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| HORTICULTURE (See Note J). | ECONOMIC ENTOMOLOGY (Note L). |
| LABORATORY PRACTICE. | PRACTICAL PHYSICS. |
| COMMERCIAL LAW. | CHEMISTRY. |
| BOTANY PLANT PHYSIOLOGY (NOTE K). | |
| LABORATORY. | LABORATORY. |

NOTE J.—Horticulture—Treating of principles of vital force in germination of plants. Winter, summer, spring and fall pruning; why we do this? Commercial handling of fruit and fruit trees, landscape gardening, floriculture, top working fruit trees, construction of green houses, heating, care, etc. Practical work in preparing plants for winter keeping, work in green house, proper storing of vegetables, celery, cabbage, etc.

NOTE K.—Botany.--Text-Book in this year, with work in laboratory, with specimens of plants, fungous growths, etc. Studying cellstructure and contents such as starch, nucleus, etc. Examination of different fungous growths, observing spores and their formation, assimilation, transpiration and absorption of plants and many other interesting studies that come under this head.

NOTE L.—Economic Entomology or insects and their economic treatment. The life history of insects injurious to fruits and vegetation, and their economic treatment explained. The best methods of destruction of such insects as potato bug, codling moth, canker worm, wire worm, currant worm, etc.

NOTE M.—**Chemistry** continued with an advanced study of production, adsorption and fixation of food of plants, action of nitrates, their reductions, etc. Chemical changes brought about in different soils,

SECOND TERM.

HORTICULTURE (Note N). EVOLUTION OF HORTICULTURE (Note P.)
LABORATORY. GEOLOGY (Note Q).
CHEMISTRY OF SOILS (Note O).
LABORATORY. THESIS (required).

NOTE N.—**Horticulture**.—In these closing lectures of the course, a general survey is taken of all the work done and principles covered. Forestry is here taken up, and its value pointed out and discussed. Work in caring for and selecting ornamental trees. Scientific experiments made with plants in green house. Thesis work, taking up practical subjects. A certain amount of time devoted to preparation of this thesis counted as laboratory work.

NOTE O.—**Chemistry of Soils**.—Lectures in connection with laboratory work embracing the chemistry of air, soils and fertilizers and their action on roots of plants, determining what the plant takes from the soil and the cheapest and best way to replace that loss. Preparation of composts for different soils, discussion of nitrification and its work in the orchard.

NOTE P.—**Evolution of Horticulture**.—Students are given references for reading in Library, outlines submitted, and synopsis of work done in reading on various methods of propagation and advancement of horticulture in various countries.

NOTE Q.—**Geology**.—This is a study of Economic Geology comprising lectures and recitations upon geology of clays, soils, loams, etc. Essays on different topics taken up in Economic Geology. Study of fossils. Preparation of rock sections.

In second year optional studies may be taken but no horticultural study can be omitted.

NOTES ON COURSE OF STUDY.

The course of study as laid down is designed to give instruction to the student in the sciences that underlie practical horticulture in conjunction with such optional or elective studies as will aid more thoroughly in sustaining both the scientific and the practical phases of successful farmers the

better to place the student on an intellectual level with the educated in any profession. The explanatory notes are but surveys of some of the essential points brought out in the courses. Horticulture is treated in lectures with references to works in library. In Botany, lectures are supplemented with the use of the works of Gray, Goodale and Bessey as text books, with references to the works of Sachs, DeCandolle, Darwin, DeBarry, Bostin and others. Chemistry is treated in classroom by lectures and text books, with reference to the works of such authors as Johnson, Storer, Boussingault and others. "Waring's Draining for Profit," is the text book used in Soil Drainage. In addition, lectures are given on practical work and the results of experiment.

In Geology, Physics and Entomology, class work is conducted with text books and lectures.

In English it is quite necessary that students pursue this sufficient to aid them in expressing themselves properly in speech and in essays written during the year upon special subjects. The full course is supported by such practical illustrations as: (1) Orchards and gardens, (2) Collection of injurious insects, (2) Propagating rooms, (4) Facilites for field work, (5) Forms of abnormal growth, (6) Equipment with modern Horticultural implements.

GOVERNMENT,

Students in attendance are expected to be punctual, systematic and industrious in their work in class room and laboratories, and gentlemanly in their conduct. The school offers no inducements to those who are idle or disinclined to study. Such students are advised not to come.

STUDENTS' EXPENSES AND EQUIPMENT.

Tuition is free to all Students. Board may be had in private family or hotel from \$2.50 to \$3.50 per week, but it is better for Students to board in one of the Student Boarding Halls (Chipman Hall or Academy Home) near the school, where they may find board for \$2.60 per week, including washing. The rooms are furnished with stove, chairs, table,

bedstead, mattresses, washstands and bookcase. Each Student should provide himself with the following articles :—

1 Looking-glass, 1 Wash basin and ewer, 1 Slop Pail, 4 Towels, 4 Table Napkins, 6 Sheets for single bed, 1 Lamp, 3 Pillow cases, Bed Clothes (Blankets or comfortables, as required).

Kerosene and fuel can be obtained from the janitor in the building.

Room rent is from \$7 to \$8 per year, depending on location of room. Students are earnestly advised to bring from home such articles as will make their room comfortable and cheerful. The current expense of Students in either of these halls, for one year, is about as follows :

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| Board and washing per week | \$2.60 |
| Lighting, heating and incidentals per week | .35 |
| Room rent per year | 8.00 |

No reduction will be made on board bill for an absence of less than one week at a time. Notice of absence should be given the Steward upon leaving.

Text books used may be obtained at cost rates. Stationery may be purchased at the town Book Store at reasonable charges.

Breakage in laboratory practice will be charged to the Student.

Gymnasium fee for practice in University gymnasium is \$2.00 per year.

Students expecting to board in the town should notify the director a few days before school opens.

ADDITIONAL NOTES.

Students have access to the University Library.

Acadia Athenæum Reading Rooms, containing a list of current newspapers and leading magazines, are open to those students subscribing for Acadia *Athenæum* at \$1.00 per year.

Necessary expenses in the School for one year are from \$85.00 to \$90.00.

Parents of students and the public in general are cordially invited to visit the School and inspect the work.

In addition to its natural advantages for the study and practice of Horticulture, students will find Wolfville thorough-

ly a college town. Wolfville is a social centre; it has five different churches. The moral standing is high being strictly a temperance town.

Students expecting to attend should notify the director a few weeks in advance.

The instructors make it an aim to interest themselves in the students' welfare.

There are various Literary Societies which students have the opportunity of joining.

Numerous donations have been acknowledged as given by leading fruit growers of the Province interested in the furthering of the work and aiding the institution.

Students taking the course of study complete, are fitting themselves for a profession that is already taking rank as such all over the world.

All letters of enquiry will receive prompt attention if addressed to

E. E. FAVILLE, DIRECTOR,
Wolfville, N. S.