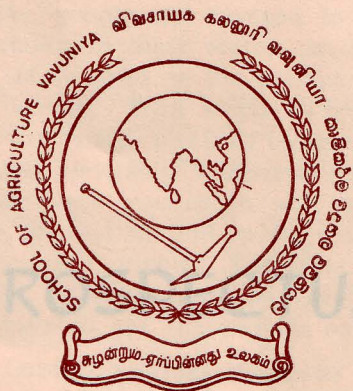


**SCHOOL OF AGRICULTURE
VAVUNIYA**



**PROSPECTUS
DIPLOMA IN AGRICULTURE**

MINISTRY OF
LANDS & AGRICULTURE

DEPARTMENT OF
AGRICULTURE

NORTH - EAST PROVINCE

1989

DIPLOMA IN AGRICULTURE

ROSPECTUS

School of Agriculture

Vavuniya

1989

INTRODUCTION

Agriculture is an important activity in the national as well as regional context. In the North East Province, nearly sixty percent of the people are engaged in crop and livestock production. Production in these sectors is in excess of need at the present level of demand in the province, especially at the present levels of income. With emphasis being placed on diversified productive enterprises, levels of income are bound to rise. Such incomes would inevitably stimulate demand and a large measure of the increased production will be easily absorbed. Besides, increased production and wider margins of profit will make export agriculture viable. Therefore, agriculture along scientific lines with steadily increasing levels of productivity is what the farmers have to set their vision on.

A holistic farming systems approach becomes necessary to push most farmers from a subsistence to a substantially profit making level. In this context, besides crop and livestock production, emphasis have to be placed on agro-forestry, fisheries and homestead enterprises. This approach will make agricultural development sustainable.

Trained and committed agriculturists are required to attain these objectives. The School of Agriculture at Vavuniya will produce such committed personnel to take on these tasks with dedication.

A survey conducted in as far back as 1977 (USAID) projected the demand for diploma holders in agriculture in Sri Lanka at 315 per annum over the period 1978 to 1982. With much development activity, this trend is likely to be maintained for some years. The demand for trained personnel emanates from the public and private (including self employment) sectors in the following fields:

1. Crop production
2. Animal Production and Health
3. Land development and land use
4. Plantation agriculture (eg. Cashew, Sugar Cane and Coconut in the North East)

5. Education
6. Agro-forestry
7. Fisheries
8. Agro-industry

It is anticipated that 75 to 100 middle level trained personnel will be required annually in the North East Province to meet the demand for trained personnel.

The management of the school will endeavour to give as comprehensive a training as possible in all fields in agriculture during the two year period. Training will also be imparted in fields allied to agriculture. It is also the intention to develop this new school so as to expose the students to all frontiers of knowledge. The students will be given opportunities to engage in a number of extra curricular activities whether they be sports or literary activities or activities related to social service. In short, it is our intention to develop a personality with not only specialized knowledge in agriculture, but also a person having been exposed to a wide spectrum of knowledge and experience, and a responsible citizen with leadership qualities.

HISTORY OF MIDDLE LEVEL AGRICULTURAL EDUCATION IN SRI LANKA

Institutionalized agricultural education for middle level agriculturists started in 1916 at the School of Tropical Agriculture in the Royal Botanical Gardens, Peradeniya. The objective was to provide practical agricultural training to prospective agricultural instructors, headmen, teachers and those who wanted to be self employed. In 1941, this school was shifted to the other side of Mahaweli Ganga where the present Inservice Training Institute is located.

In 1948, the Girls' Farm School was inaugurated at Kundasale. In 1958, this Girls' Farm School was converted to a second school of Agriculture for both boys and girls. There was a Sinhala as well as a Tamil stream in this school, while the school at Peradeniya changed its medium of instruction from English to Sinhala.

In 1966, the two Schools (Peradeniya and Kundasale) were amalgamated to one School of Agriculture located at Kundasale. In the same year, the general course was changed to provide specialization in one of the following disciplines:

1. Crop Production
2. Animal Husbandry
3. Agricultural Engineering
4. Horticulture
5. Rural Home Management

In 1974, the course structure changed to provide a general course as before.

In addition to the School of Agriculture, Kundasale, where students in the Sinhala and Tamil streams were taught, two more Schools of Agriculture were started in 1981 at Pelwehara and Angunakolapalessa for boys in the Sinhala medium. At present, these three Schools of Agriculture offer a two year course leading to a Diploma in Agriculture. Besides, the Hardy Technical Training Institute, Amparai, Trinity College, Kandy and Aquinas University College, Colombo, offer a two year course in Agriculture.

NEED FOR A SCHOOL OF AGRICULTURE IN THE NORTH - EAST

The School of Agriculture at Kundasale was established in 1958, to train students in the Sinhala and Tamil streams. About 40 Tamil medium students were admitted to the two year diploma course every year till 1983. After 1983, the intake declined sharply. The reasons for the steady decline in the number of students are:

- * Students have often suffered the consequences of the ethnic conflict and parents are not willing to send their children to Kundasale.
- * Parents who are mostly from rural areas in the North and East are unable to meet the cost of sending their children to a distant place like Kundasale.

Agriculture is said to be a location specific vocation. Now at Kundasale, the agricultural technicians for the North and East (low country Dry Zone - entirely different agro climate, terrain, land use and farming systems) are trained in an environment unrepresentative of the area in which they will be called upon to work.

To overcome the difficulties indicated above, to encourage brighter and more deserving students to apply and also to improve the the present standard, it is of paramount importance that a School of Agriculture be located in the North East Province.

It was decided to site the school at Vavuniya mainly because it is central in location for students not only from the North and East but also for students from other parts of the island.

SESSIONS AND TERMS

The school of Agriculture offers a two year course in agriculture leading to a diploma in agriculture and is open for both men and women.

The academic year of the school starts in September and ends in August. School will be in session for 10 months in a year and will consist of three terms :

First term : Late September to Late December

Second term : Mid January to early April

Third term : Early May to early August

FEEES

Tuition fee

Tuition is free to citizens of Sri Lanka.

Accomadation and hostel fee

Residential facilities are provided in the hostel. Fees for board and lodging is Rs. 1500/- per term. This is payable at

the beginning of the academic year in one instalment or at the commencement of each term in three instalments. Fees will be revised annually.

Refundable deposit

A caution deposit of Rs. 250/- should be paid by each student on admission.

Union fee

Subscription is Rs. 50/- per year per student. Union fees should be paid at the beginning of the academic year.

Fee for repeating session

If a student is required to repeat the course of studies for any reason, the student will not be entitled to anyone of the subsidies provided and will be required to pay the tution fee determined by the Department of Agriculture.

ADMISSION

Applications for admission will normally be called by advertising in the newspapers in July each year. Applicants should apply as required in the advertisement. Candidates who satisfy the specified requirements will be called for an interview. The final selection for admission will be made by a board of selection.

Admission Requirements

- (i) Age between 18 and 22 years on the first day of October of that year.
- (ii) Minimum pass grade in any four of the following six subjects in one sitting at the GCE (A/L) Examination: Botany, Zoology, Chemistry, Physics, Agriculture, Geography.

CURRICULAM

FIRST YEAR

Agricultural Botany

Plant Morphology, anatomy, histology, physiology, growth and development, reproduction, genetics and breeding, methods of breeding agricultural crops. Forestry. Weeds.

Agricultural Chemistry

Properties of soils, water and mineral requirements of crops, Rocks and minerals, weathering of rocks and soil formation. Great soil groups and soils of Sri Lanka. Nutrient transformation. Fertilizers and manures, problem soils, Nature of rice soils.

Crop Production

Climatology. Soil fertility. Organic manures. Farming systems. Rice and other cereal crops.

Animal Husbandry

Present status of animal husbandry development in Sri Lanka with special reference to the North East Province. Climatic and other factors affecting animal husbandry development. Breeds of cattle, buffaloes, goats, poultry and ducks. Ruminant anatomy, nutrition, housing and feeding.

Horticulture

Planting materials, nursery management, vegetable production, orchard management, harvesting and storage of fruits. Fruit physiology and growth regulators.

Agricultural Engineering

Fundamentals of engineering, surveying and levelling, farm buildings, theory of engines, types of engines, power transmission, fuel, cooling, lubrication, electrical and hydraulic systems. Two wheel and four wheel tractors and selection criteria for tractors. Appropriate technology.

Food Science

Biochemistry. Nutrition. Food processing and preservation. Dairy chemistry.

Workshop practice (For men)

Classification of materials, simple metal work, carpentry, blacksmithy, workshop practice and metal casting. Maintenance of agricultural machinery and equipment.

SECOND YEAR

Crop Production

Principles and production of field crops - pulses, oil seed crops, spices and condiments, root and tuber crops, fibre crops, sugar cane and Tobacco.

Cultivation of minor export crops - coffee, cocoa, cinnamon, cardamom, nutmeg, cloves. Plantation crops - tea, rubber, coconut, cashew and palmyrah.

Animal Husbandry

Pig husbandry: Selection, management, housing and breeding. Goats: breeds, selection, housing and management. Milk and milk products.

Animal Health

Diseases and their causal agents. Mastitis, metabolic disorders, nutritional deficiencies, and veterinary first aid. Animal legislation. Artificial insemination.

Horticulture

Cultivation practices of vegetables (local and exotic), major fruit crops, minor fruit crops, floriculture, fruit subsidy scheme. Homestead development. Sericulture. Beekeeping.

Agricultural Engineering

Alternative sources of energy, tillage equipment (primary and secondary), mechanism of seeders, transplanters, sprayers, dusters, weeders and inter-cultivators. Hydrology, soil and water management, irrigation and drainage, soil conservation, water pumps, harvesting equipment, harvesting and processing machinery.

Plant Protection

Principles of Plant Protection, general entomology, Agricultural entomology and pest control. Pests of important crops and their control. Post-harvest storage pests. Diseases and their causal organisms. Physiological diseases, Nematodes and nursery diseases. Weed management.

Agricultural Economics and Farm Management

Basic concepts in presentation of data. Introduction to economics. Price theory, Production economics, Socio-economic surveys. Economy of Sri Lanka with special reference to the agriculture sector. Agricultural marketing, credit, crop insurance and floor price scheme. Subsidies.

Farm management: Concepts, role of a farm manager, farm planning and budgeting. Custody and care of farm property and produce.

Agricultural Extension

Principles of agricultural extension, adult education, agricultural development, organizations and functions of departments involved in agricultural development. Communication process, adoption and diffusion of innovations. Rural sociology leadership, extension programme and planning, Training and Visit System of extension. Extension teaching methods and materials. Farm women and young farmers in agricultural development.

Workshop practice (For men)

Maintenance and minor repairs of four wheel and two wheel tractors. Tillage equipment. Seeding and weeding equipment. Dusters, sprayers, water pumps, irrigation equipment, harvesting and processing machinery.

SCHEME OF EXAMINATION

Attendance

To qualify to appear for the final examination of Part I and Part II, a student should have a minimum of 80% attendance in theory as well as practical classes in each subject every year.

Continuous evaluation

There will be separate evaluations for theory and practicals in each subject during normal theory and practical periods. The evaluation in theory will be in the form of short tests such as quizzes, multiple choice questions and oral tests. Continuous evaluation in practicals will be based on performance in practical work, demonstrations, assignments in laboratories and field. Forty percent of the marks for the final grade is reserved for such continuous evaluation.

Final Examination

At the end of the first year, a final examination (Part I) will be held on the subjects taught during the year. Similarly, a final examination (Part II) will be held at the end of the second year. Sixty percent of the marks are reserved for the final examinations.

Qualifying Marks

Pass marks is 40 percent for both theory and practicals. The final grade for a subject is computed on the following basis: $\frac{2}{3}$ of the theory marks + $\frac{1}{3}$ practical marks.

Gradings

A candidate will be given grades for each subject on the following basis :

- A - 70 marks and above
- B - 60 to 69 marks
- C - 50 to 59 marks
- S - 40 to 49 marks
- F - Below 40 marks

Class Categories

A candidate should pass in all subjects. Students being awarded the diploma will be placed in the undermentioned class categories based on the average marks obtained in the final examinations :

- Above 70 percent - First class
- 55 - 69 percent - Second class
- Below 55 percent - Pass

Repeat candidates in Part I and/or Part II of the final examinations will not be placed in the First or Second class categories.

Certificates

A diploma certificate of the school will be awarded to successful candidates.

Referred students

A student who fails in one or two subjects will be referred in those subjects. The student will be allowed to repeat these subjects at the next examination.

Failures

If a student fails in more than two subjects, the student will be deemed to have failed the whole examination.

Re-correction of answer scripts in the subjects in which students have been referred or have failed will be allowed in Part I and Part II of the examinations provided the student applies to the Principal within 2 weeks of the release of the results. A deposit of Rs. 100/- per subject should be made with the Principal who will keep this money in deposit account. This deposit will be refunded to the students who pass in the subject after recorection. Only students who pass the practicals but fail in theory will be eligible to apply for recorection. Answer scripts in repeat examinations will not be recorected.

Repeat examination

Repeat examination will be held for students who have failed or are referred in Part I or Part II of the final examination. A maximum of two repeats will be allowed. Applications for the repeat examinations should reach the Principal within 2 weeks of the release of results of recorected answer scripts.

GENERAL

Candidates should note that admission to the school implies that the candidate agrees to abide by the rules and regulations of the school. If the Principal and staff are of opinion that any student's work or conduct does not merit his remaining at the school, the student is liable to be discontinued at any time during the sessions.

1. Admission to the school does not in any way guarantee employment in the Department of Agriculture nor does the Department of Agriculture undertake to find employment for students who pass out of the school.

2. Students' Unions are responsible for organising the extra curricular activities and promoting general welfare of the students. Membership in the Union is compulsory for all students. Union fees will not be refunded. Members of the staff are associate members of the Union. Participation in the activities of the Union enables Students to take part and develop their talents in games as well as in literary, religious, social and dramatic activities.
3. Well equipped Chemistry and Biology laboratories and a Workshop will be made available at the school.
4. Practical training will be given due emphasis. Important units of the School Farm are Crop Production, Animal husbandry, Horticulture and Agricultural Engineering. Students get ample opportunities for working in the school farm and develop their skills.
5. Eminent professionals will be called to deliver special lectures in their fields of specialization.
6. Tours will be arranged for students to visit places of agricultural interest in the island.
7. Students will be required to participate in indoor and outdoor games.
8. The code of discipline of the school will be strictly followed by the students.

ACADEMIC STAFF

Principal: Mr. S. RAJADURAI B.Sc (Agric.) Hons, M.Sc.

LECTURERS

1. Mr. SABARATNAM VIGNESWARAN
B.Sc (Agric.), M.Sc.
 2. Mr. KANAGASABAI SELVANATHAN
B.Sc (Agric.)
 3. Miss JEYAKUMARY SIVALINGAM
B.Sc (Agric.), M.Sc.
 4. Miss SASIPPTRABA KANDASAMY
B.Sc (Agric.)
 5. Miss LALITHAKUMARY NALLATHAMBY
B.Sc (Agric.) Hons.
 6. Mr. N. KETHARANATHAN
B.Sc (Agric.)
 7. Miss ANANTHINI KANAPATHIPILLAI
B.Sc (Agric.) Hons.
 8. Miss KALAIARASY SINNIAH
B.Sc (Agric.), M.Sc.
 9. Mr. P. ALVAPPILLAI
B.Sc (Agric.) Hons, M.Sc.
 10. Miss ANPALAKI JEYABALASINGAM
B.Sc (Agric.) Hons, M.Sc.
- Administrative Officer: Mr. P. T. SRITHARAN, B.Sc

27 - 09 - 1989

