

SRI LANKA SCHOOL OF AGRICULTURE

KUNDASALE

A.M. de Mel

Principal

Sri Lanka School of Agriculture, Kundasale

The School of Agriculture, Kundasale started as the Girls Farm School Kundasale in October, 1948 with temporary army structures and in 1951 buildings were constructed with the intention of shifting the School of Agriculture at Peradeniya to Kundasale and to handover Peradeniya premises to the University of Ceylon in 1952. Due to some reason or other this decision was changed and in 1955 the Girls Farm School shifted to the new buildings. The medium of instruction of this school was English until September, 1958. This school was re-named as School of Agriculture, Kundasale and in the first batch of Sinhalese and Tamil boys and girls were admitted on 1st. of October, 1958 and the media of instruction altered to Sinhala and Tamil. With this change, the curriculum for the girls was brought in line with that followed at the School of Agriculture, Peradeniya, with the exception of allowing the girls to offer Home Science subjects in place of Agricultural Engineering and Plantation Crops.

The main objective of this two year general course for the certificate of the School of Agriculture had been to train personnel for the Department of Agriculture as Agricultural Instructors.

Subsequently in 1966 the general course conducted at the school was re-organized with a view to provide a specialized training with a greater practical bias in the field of specialization. During the first part of the course all students followed a general course in science subjects; Chemistry, Botany and Farm Mathematics, Principles of Agriculture and Principles of Animal husbandry, while in the second part they 'Major' in one specialized field.

Majoring fields were :

- | | |
|--------------------------|---------------------|
| 1. Crop Husbandry | 2. Animal Husbandry |
| 2. Horticulture | 4. Farm Engineering |
| 5. Rural Home Management | |
| (for girls only) | |

Shortly after the commencement of the course under the re-organized curriculum, the School of Agriculture, Peradeniya was amalgamated with the School at Kundasale.

After several years of specialized training, there was a general opinion that the middle level specialized training without adequate background knowledge of general agriculture was incapable of delivering the goods as intended before. Consequently, it was agreed upon to revert to a general course and in 1974 the present generalised course in agriculture was commenced leading to a Diploma in Agriculture. However, the course content was revised and the examination pattern was modified to make the training more meaningful.

Current Training Programme

The current two year generalized course is open to both men and women between the ages of 17 and 25 years.

The minimum educational qualifications required to gain direct admission to the school are - either (a) passes in atleast six (6) subjects at the Sri Lanka General Certificate of Education (Ordinary Level) Examination including :

- (1) Sinhala or Tamil Language
- (2) Pure Mathematics or Arithmetic
- (3) Chemistry
- (4) Biology or Botany or Zoology.

(b) A minimum of five subjects at G.C.E. (Ord. Level) examination should have been obtained in one and the same sitting with either Language or Puremathematics/Arithmetic should be one of the five subjects thus obtained.

(c) Credit passes at G.C.E. (Ord. Level) examination or equivalent or higher examination in not less than two of the following subjects :
Pure Mathematics, Chemistry, Physics, Geography, Agriculture, Biology or Zoology or Botany -

(a) Passes in at least six subjects at the N.C.G.E. Examination including :

- (1) Sinhala/Tamil Language
- (2) Mathematics
- (3) Science
- (4) Agriculture (under pre-vocational subject I or II)

(b) Posses distinctions (A,B Grades) at N.C.G.E. examination in not less than two of the following subjects :

- (1) Science
- (2) Mathematics
- (3) Social Science,
- (4) Pre-vocational subjects I or II, Agriculture.

In addition to the above direct admissions following categories of students are admitted to the school :

- (1) Department of Agriculture employees on 2 years' study leave
- (2) Corporation employees - R.V.D.B. Sugar Corporation
- (3) Other Departments - Land Commissioner's Dept.
Minor Export Crops Department.

The media of instruction at the Sri Lanka School of Agriculture is Sinhala and Tamil.

The curriculum includes the following subjects and they are examined at the end of each academic year as two parts :

Part I - First year :

1. Agricultural Chemistry
2. Agricultural Botany
3. Animal Husbandry I
4. Horticulture I
5. Crop Husbandry I
6. Agricultural Engineering I
7. Workshop Practice (for men) & Home Economics (for women) I

Part II - Second year

1. Animal Husbandry II
2. Horticulture II
3. Crop Husbandry II
4. Agricultural Engineering II
5. Workshop Practice II (for men) Home Economics II
(for women)
6. Extension Education
7. Plant Protection
8. Farm Management & Field Experimentation, Economics.

(A copy of the course content is attached herewith).

Examinations

To qualify to appear for the two examinations, a student should have an attendance of at least 80 % of the total, theory and practical classes conducted during the year. All subjects at the two examinations are compulsory and a student is entitled to the Diploma in Agriculture Certificate only after he completes all the subjects.

A student to pass in any particular subject should obtain a minimum of 35 % marks individually in theory and practicals together with a minimum aggregate average of 40 % in both theory and practicals. 25 % of the practical marks is contributed on the performance at practicals during the course of the year and the balance 75 % of the practical marks is contributed on the performance at the practical examination.

A student who obtains an average between 60 % - 69 % gets a Credit Pass and above 70 % get a Distinction in that particular subject. A student who fails to obtain the minimum requirements for a pass is given another two chances to sit for that subject.

Divisions are awarded on the overall performance of a student at both Part I, Part II examinations.

1st. Division is awarded to those students who obtain over 40 marks in each subject and with a general average of 70 % marks,
2nd. Division is awarded to those students who obtain an overall

40 % in each subject with a general average of 60% marks. All others who are successful in all subjects will be given a pass division.

Any student who has failed one or more subjects in Final Part I will be allowed to proceed to the 2nd year. A student can however sit the subjects he has failed while doing his Final Part II examination. Such students will not be granted to improve grades in subjects they have already successful and they are not entitled to a 1st or 2nd Division.

Facilities available:

Staff: The teaching staff comprises of the Principal, 17 lecturers, 4 lecturer demonstrators, and a supporting staff of Agricultural Instructors, Farm Mechanical Instructors, Carpentry Instructors, Laboratory Assistants, Games Mistress etc.

Other Staff: Secretary, 6 Clerks, Store Keeper, Lady Warden, Warden Boys' Hostel, Assistant Librarian and other labour grades.

All the lecturing staff are graduates in Agriculture. Some of them possess post-graduate qualifications.

School Farm:

The school farm where the school is located has a total extent of 260 acres. The area under the administrative control of the Principal which in actual practice provides the facilities for teaching is as follows :

(a) Highland - irrigable	5 acres
(b) - unirrigable	20 "
(c) Lowland - irrigable	3 "
(d) Extent under permanent crops	11 "
(e) Extent under pasture	15 "
(f) Extent under nursery	1/2 "

Source of irrigation is well.

Livestock Section

Dairy - capacity for 44 cows

Breeds of cattle available - Freishian, Aryshire, Sindhi

Poultry - capacity for 1500 birds

Breeds - white leghorn, RIR

Piggery - capacity for 25 pigs

Breeds - large white/landrace, large black

Goatry - capacity for 30 goats

Breeds - Saanan

Buildings

1. Administrative Block

a. Assembly hall with 300 seating accommodation

b. 2 Nos. lecture halls to accommodate 150 students

c. Chemistry Lab. - facilities for 40 students

d. Botany lab. - facilities for 30 students

e. Horticulture lab. - facilities for 30 students

f. Library/Reading room with 25 seats.

2. Home Economics lab. - facilities for 25 students.

a. Cooking section

b. Needlework section

c. Handicraft section

3. Crop Section - field store

4. Horticulture section - field lab/potting shed

5. Hostels -

a. Abeywardena hall - for 150 students

b. Illangakoon hall for 90 students

c. Wijerama hall for 40 students

d. Model house for 30 students *- Temporary measure.

6. Workshop

a. Carpentry section

b. Smithy section

c. Machinery section

d. Lecture room & stores - to accommodate 40 students at a time.

7. Principal's office

8. Stores & Engineering section
9. Quarters for officers:
- a. Principal's bungalow 1
 - b. Lecturers' quarters 8
 - c. Wardens' quarters 2
 - d. Secretary's quarters 1
 - e. Clerks' quarters 5
 - f. Librarian's quarters 1
 - g. A.II. quarters 4
 - h. Store keeper's quarters 1
 - i. Quarters for minor employees 25

Machinery & Equipments

- a. 4 wheel tractors 2
 - Massey-Ferguson tractor 1
 - Inter-national B 275 1
 - Disc harrow 1
 - Disc plough 1
 - Tine tiller 1
 - Trailers 2
- b. 2 wheel tractors 3 with attachments
 - Kubota 1
 - Iseki 1
 - Yanmar 1
- c. Water pumps 2
- d. Power sprayers 2
- e. Hand sprayers 2
- f. Rotary weeders 10
- g. Seeders 10
- h. Hand tools
 - Mammoties 200
 - Hand forks 20
 - Pruning knives 20
 - Crowbars 11
- i. Surveying and levelling equipment for 25 students
- j. Teaching aids-slide projector, overhead projector, Epidioscope
- k. Office equipment - type writers (English 01)
 - Sinhala 02
 - Duplicating machines - 01
 - Steel cabinets - 02
 - Tamil 01

PROPOSALS

Admissions:

At present facilities are available at the school to accommodate only intake of 150 students annually for the Diploma Course - both Sinhala and Tamil media. Of this intake 50% of the places are now reserved for officers of Government Departments and Corporations. Only the balance 50% is available for direct entrants.

The demand to enter this school has increased tremendously within the last few years and number applied to gain direct admission this year has been 3900. Further there are several other government departments and corporations who wish to get their officers trained at this school. Under these circumstances it is unjustifiable and undesirable for the future development of the country to refuse admission to a very high percentage of qualified youth due to inadequate facilities at this school. Further, this is the only institution of this nature which offers middle level training opportunities in Sri Lanka.

Therefore, it is very desirable that the following steps be taken immediately :

- (a) Provide more facilities at Sri Lanka School of Agriculture Kundasale to take in more students. The intake may be restricted to a total intake of 250 per year, so that the total number of students undergoing training at a time both 1st. years and 2nd years do not exceed 500.
- (b) Even though the intake to Kundasale school is increased to 250 per year, yet there will be large percentage of applicants who will not be able to gain admission to this school. Therefore, it is desirable to open a second school of agriculture with facilities to accommodate another 150 students.

Educational Qualifications for admission

One of the reasons for the large number of applicants seeking admission to this school is due to the fact that the present minimum educational qualifications stipulated is too low. It is necessary that the admission requirement to this school be raised to :-

(a) G.C.E. (O.L) six passes in one sitting with Credit passes in the following subjects : Chemistry, Botany or Zoology or Biology - * including Sinhala/Tamil language, Arithmetic/Mathematics

OR

(b) N.C.G.E. six passes in one sitting with A or B grades in the following subjects :- First language, Mathematics/ Arithmetic, Chemistry/Biology/Science/Agriculture.

As pointed out earlier in this document this institution provides training for officers of government departments and corporations. They now represent 50 % of the intake. They are admitted on the performance at an examination, conducted by the Department of Agriculture. Most of these officers do not have the back ground knowledge of basic sciences, which is considered to be an essential requirement to teach applied sciences. In order to maintain a uniform level of teaching and to avoid declining of standard it is necessary to modify the system of selecting these officers for training at this institution. I wish to suggest the following amendments to the scheme of selection :-

- (a) Since most of these officers are passed out of the Practical Farm Schools, pass in science subjects - Chemistry, Botany or Biology or Zoology, Agriculture should be included as the admission requirement to a Practical Farm School in the future.
- (b) Departmental examination for admission to this institution should include a special paper in basic sciences - Mathematics, Chemistry, Physics, Botany, Zoology.
- (c) Officers and Practical Farm School Scholars should be selected atleast 3 months before the commencement of sessions and they be given a 3 months intensive training in Chemistry, Biology, elementary physics and mathematics.

DIRECT ENTRANTS

Presently direct entrants are selected at an interview held at district level. This is not a satisfactory system of selection. This procedure should be discontinued and a competitive written entrance test should be held, conducted by the Department of Examinations and selected on the results of this examination in the order of merit.

Additional Staff Requirements

The present teaching staff cadre consists of 17 lecturers and 4 lecturer demonstrators. The intake of student for the 1979/81 course has been doubled the normal intake to 270. Therefore, it is necessary that the teaching staff and other facilities should be maintained in keeping with the intake. I suggest that the cadre of lecturers should be increased to 25 (18 Sinhala and 7 Tamil).

Lecturers are expected to manage sections under them in each of the fields of specialization to:

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| Crop husbandry | - | Paddy cultivation, Minor Export crops, other field crops |
| Animal husbandry | - | Bairy husbandry, poultry husbandry, pig husbandry, goats, |
| Horticulture | - | Pomology, vegetable cultivation, Floriculture, and bee-keeping, nurseries. |
| Farm Management and Economics | | |
| Farm Engineering | - | Workshop, Engineering laboratory |
| Plant protection | | |
| Agric. Extension Education | | |
| Home economics | - | Needlework/Handicrafts, cookery, food preservation. |

Facilities in each of these sections have to be improved to cater to the increased intake for the 2 year Diploma Course as well as for the proposed short term courses. These sections have to be supplied with additional supporting staff.

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|-----------------------------|---|---|
| Crop husbandry | - | 2 A.II. per section |
| Animal husbandry | - | One laboratory Assistant per section |
| Horticulture | - | One clerical hand per section
One audio-visual technician
One care-taker per section. |
| Farm Management & Economics | | One A.I. and one clerical hand |
| Plant Protection | - | One A.I., one Lab.Asst., One care-taker. |
| Agric. Extension Education | | One A.I., one photographer, one audio-visual technician, one care-taker. |

Home Economics	Two A.II. (female) and lab. Asst. One care-taker.
Farm Engineering	Four Farm Mechanical Instructors, (3 Sinhala and 1 Tamil) 3 Mechanics, one Welder, one carpenter, 1 blacksmith, 1 care-taker, 3 tractor drivers.

In the past the cadre of lecturer was found to be attractive due to higher initial salary (when compared to other cadres such as A.OO., R.OO. etc). and other fringe benefits offered to them.

Now all the staff grade technical officers - A.OO., R.OO., Lecturers, S.M.SS., Agric. Economists etc. are included in a common service - Sri Lanka Agriculture Service, and the facilities and opportunities offered to officers at other places have become more attractive than at this institution. As a result post of lecturers has become less attractive and even the present lecturers have offered their services to other divisions.

Therefore in order to make the lecturers cadre more attractive and also to retain the existing lecturers at the school, I recommend the following:

- (a) To provide opportunities for the lecturers to serve in the research or extension division for 3-4 years and return to the school.
- (b) To offer a separate scheme of post-graduate training for lecturers and to serve the school for at least four years after the training.
- (c) To provide an incentive allowance of Rs.250.00 per month.
- (d) To provide short term refresher courses or further training locally or abroad.

This is true of the lecturer demonstrators and the other training supporting staff as well. Their brother officers working in the extension, research and farms divisions enjoy better privileges and facilities such as travelling, fringe benefits, farm allowances, scholarships etc. Therefore in order to make these posts attractive and to retain good officers, they should be offered an incentive allowance and a scheme of scholarships.

A scheme of staff training should be drawn up on the following lines. :

- Principal : Specialized training in -
1. Institutional managerial skills
 2. Curriculum planning.
- Lecturers : 1. Training in pedagogy
2. Subject matter training in post-graduate level.
- Agricultural)
Instructors &)
Lecturer demonstra-)
tors)
- Practical training in specific disciplines.

A committee should be appointed to study and recommend necessary amendments to the syllabus once in two years.

The committee should comprise of :

1. D.D. (Edu. & Training) - Chairman
2. Principal, School of Agriculture
3. 2 from the University of Ceylon
4. One D.A.E.O.
5. One Research Officer
6. One officer from Dept. of Education.

Examinations

The present system of setting Theory papers by the external examiners is satisfactory. But in the case of practical examination 25% of practical marks contributed on the performance at practicals during the course of the year and this is allocated by the lecturers. The balance 75 % is contributed on the performance at the practical examination conducted by the external examiners. It has been noticed that the general tendency was to give high marks by the lecturers. This nullifies the importance attached to the practical examination and students do not show much interest towards the practical examination since they could reach the minimum pass level of 40% by obtaining a more 15-20% marks at the practical examination. Further, only 4 hours are allocated to examine about 40 students. This is thoroughly inadequate as skills acquired , especially on field practicals cannot be judged within this short time.

Therefore, in order to make the practical examination meaningful, I suggest the following :

- (a) 25% of practical marks allocated to the lecturer to be reduced to 10%. This too should be given on assessing individual projects assigned to students. Each student should be assigned 10 projects per year per subject in addition to normal practicals.
- (b) Time allocated for the practical examination should be increased.
- (c) 75% of marks contributed on the performance at the practical examination should be increased to 90% and every attempt should be made to assess skills acquired by the student.

Additional Buildings:

- Central: One hostel to accommodate about 160 boys and one hostel for 40 girls. Cooking utensils to be provided with cooks and servants, for the students to buy their own provisions and organise their food arrangements.
- II. Theatre to screen films and slides (to accommodate 100 students) with a dark room equipped with developing and printing equipments)
 - III. 2 Lecturer halls to accommodate 125 students in each.
 - IV. Additional living quarters for staff.
 - V. One central seed stores with cold room.
 - VI. Seed processing Unit with equipment and threshing floor.
 - VII. One central sales room for the sale of produce from each division.
 - VIII. Permanent display room to exhibit the activities of each division for the benefit of visitors to the institution.

Divisions: Each division should have :

1. One lecture hall with amenities to accommodate 35-40 students
2. Laboratory with equipments.
3. Office room and stores
4. Sectional library.