

FACULTY OF AGRICULTURE



Assoc. Prof. D R Vencatasamy
Dean of Faculty

INTRODUCTION

In the year 2002/2003, the Faculty of Agriculture continued in its endeavour to diversify its programmes so as to cater more effectively to the national needs. Following the Tracer Study on the employment status of past graduates and the Rapid Appraisal Study on the perception and training needs of stakeholders in the agricultural sector, a workshop on curriculum development and training needs was organised in November 2003 with participants from 15 institutions.

Following the recommendations of the workshop, the Faculty mounted an MSc in Agricultural Management, three Postgraduate Certificates (in Agribusiness, Poultry Science & Production and Agricultural Biotechnology) and a BSc (Hons) in Food Science with Home Economics in collaboration with the MIE. A Certificate in Poultry Production was mounted to upgrade the skills of staff working in large-scale poultry enterprise, small & medium scale producers, extension-assistants and school leavers aspiring to set up viable poultry enterprises.

Associate Professor Dr S. Goburdhun, ex-Dean of Faculty, retired in July 2003 after a fruitful career of 30 years. The Faculty of Agriculture gratefully acknowledges his contribution to the Faculty and to the University of Mauritius.

PROGRAMMES OFFERED DURING ACADEMIC YEAR 2002/2003

Postgraduate Degrees

- (i) MPhil/PhD (by research)
- (ii) MSc Crop Science with specialisation in Plant Biotechnology

Bachelor s Degrees (Full-Time)

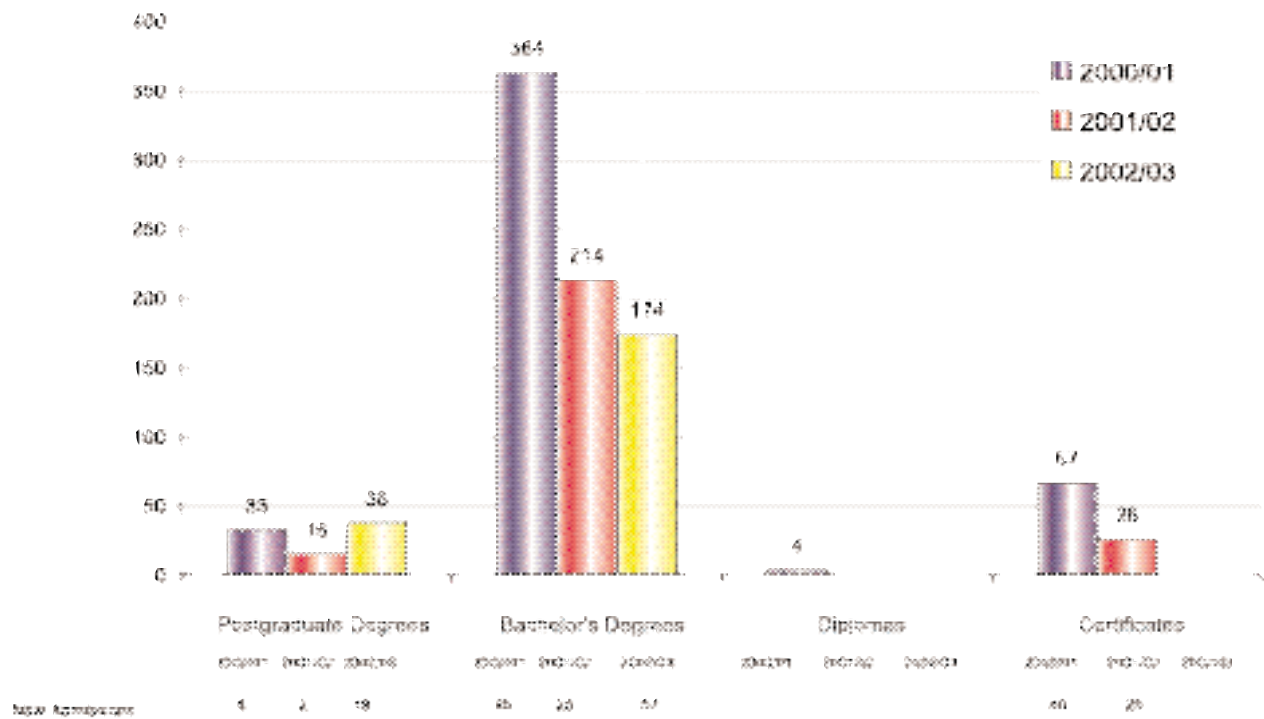
- (i) BSc (Hons) Agriculture with specialisation in Agricultural Extension
- (ii) BSc (Hons) Horticulture with specialisation in Plant Biotechnology
- (iii) BSc (Hons) Agriculture with specialisation in Agricultural Biotechnology
- (iv) BSc (Hons) Horticulture with specialisation in Protected & Soilless Culture
- (v) BSc (Hons) Agriculture with Environmental Science
- (vi) BSc (Hons) Horticulture with Business Management
- (vii) BSc (Hons) Food Science with Marketing
- (viii) BSc (Hons) Food Science and Technology

Bachelor s Degrees (Part-time, In-Service)

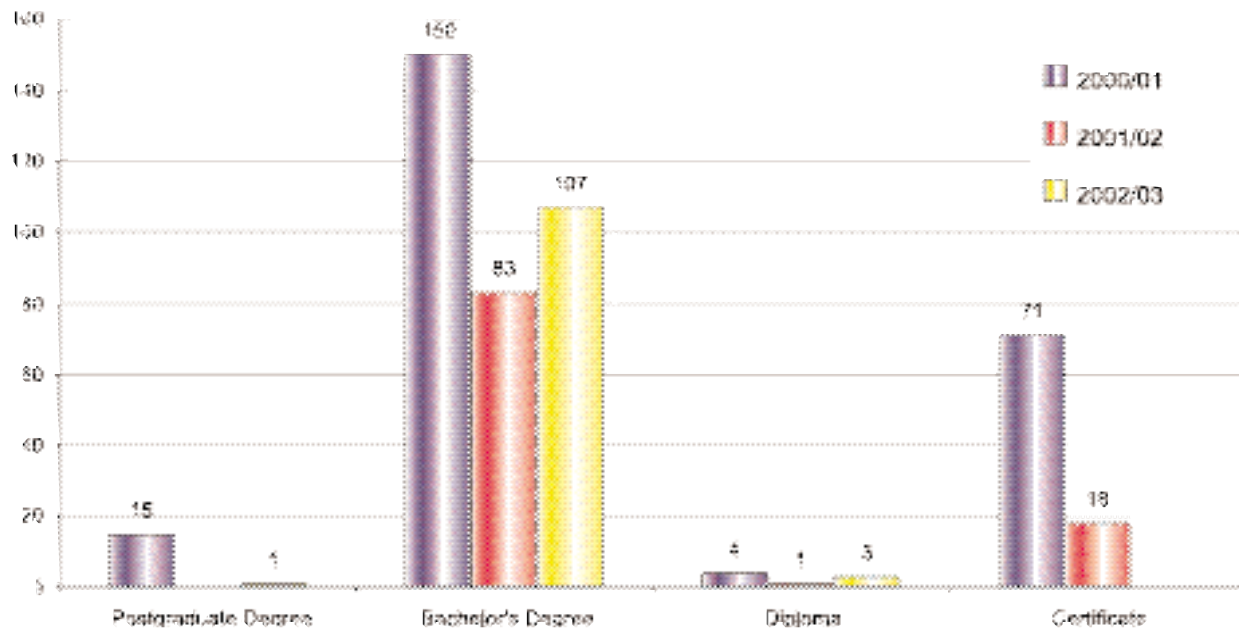
BSc (Hons) Agriculture with Food Science

STUDENT STATISTICS FACULTY OF AGRICULTURE

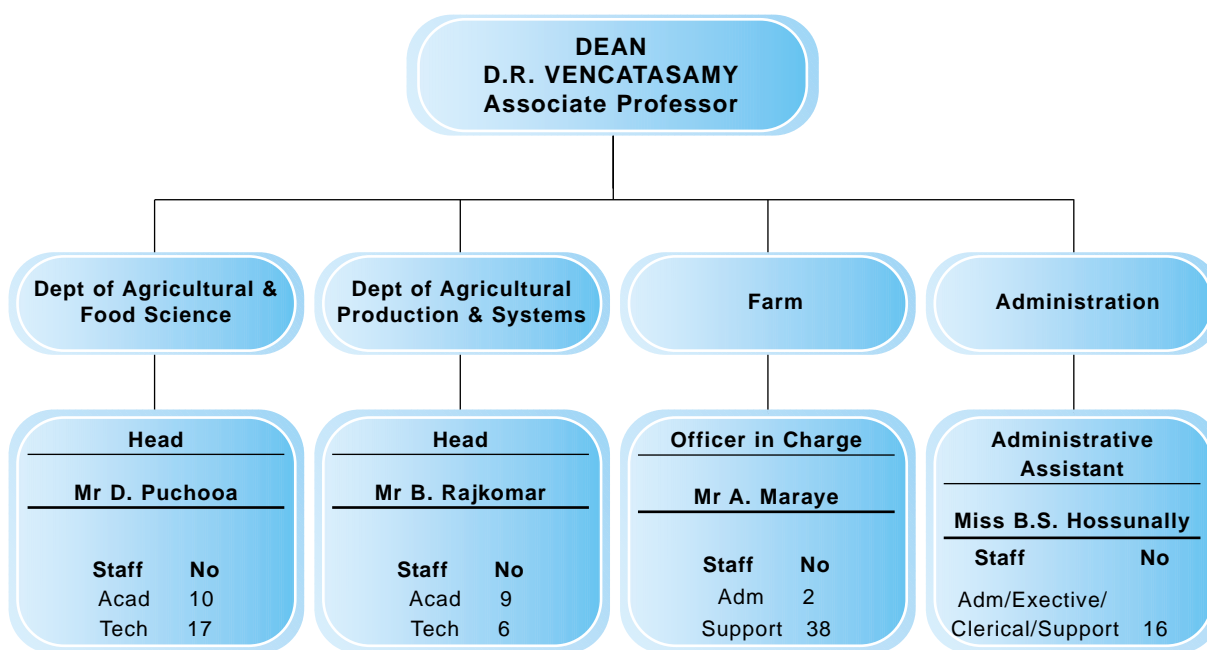
Students Enrolment including New Admissions over Academic Years 2000/2001-2002/2003



Students output over Academic Years 2000/2001-2002/2003



STRUCTURE OF THE FACULTY



INFRASTRUCTURAL DEVELOPMENT UNIVERSITY FARM

The Farm continued in its development. In addition to the purchase of a furrower for the tractor, the production of cockerels on a free-range basis was successfully undertaken.

Furthermore, Roselle and Gooseberry were harvested on a large scale. One of the main derivatives of these plants will be the production of jam.

The sale of farm produce amounted to Rs 342,311 for the year.

NEW EQUIPMENT ACQUIRED

The following new equipment were acquired during the year 2002/2003:

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| <ul style="list-style-type: none"> - Chromameter - Carbon Dioxide Gas Analyser - Climatic Chamber | } | <p>These will be used mainly
for the Enviropak project</p> |
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MAJOR EVENTS

The Ministry of Agriculture, Food Technology and Natural Resources in collaboration with the Faculty of Agriculture, organised a talk on Sensitisation on Plant Biotechnology, which was delivered by Dr C.S. Prakash, Director of the Centre for Plant Biotechnology Research, Tuskegee University, USA on 1st August 2002.

Dr M. Pillay from the IITA Eastern and Southern Africa Regional Centre (ESARC), Uganda gave a talk on Challenges and Progress in Musa Breeding at the International Institute of Tropical Agriculture (IITA) on 7th August 2002.

The Faculty of Agriculture in collaboration with the Ministry of Agriculture, Food Technology and Natural Resources organised a talk on Integrated IPR, Research, Policy and Development, which was delivered by Dr S. Kochhar, ITEC Consultant to Government of Mauritius on Seed and Plant Legislation on 6th February 2003.

Following the tracer study and rapid appraisal study carried out the previous year, the Faculty organised a workshop on Training Needs Assessment and Curriculum Development on 6th November 2002. Representatives from the various Agricultural/Food institutions participated in the workshop and a report on same was prepared and submitted to Central Administration.

ON-GOING AND NEW RESEARCH BEING UNDERTAKEN BY ACADEMIC STAFF

Boodhoo, K.

1. A comparative study of the growth and carcass characteristics of cockerels and broilers (on-going) under intensive fed conditions.
2. Genetic characterisation of native chicken in Mauritius and Rodrigues using molecular techniques (Project Proposal submitted to FARC for funding).
3. An appraisal of the Agro-Industry in Rodrigues (Project Proposal submitted to MRC for funding).

Goburdhun, D./Aumjaud, B./Santchurn, J.

1. Enviropak Environment-friendly packaging solutions for enhanced storage and quality of Southern Africa s fruit and nut exports. (An EU/ACP funded project).

Facknath, S.

1. Study of environmentally-friendly pest control methods for Organic Farming and Sustainable Agriculture in Mauritius.
2. Development of botanical pesticides for Integrated Pest Management.

Puchooa, D.

1. FARC funded projects on the Micropropagation of plants of economic importance.
2. Mass propagation by tissue culture of palms and orchids.

POSTGRADUATE STUDIES

The following students continued with their MPhil/PhD projects during the academic year 2002/2003.

Mr K.J. Bheenick on New Information and Communication Technology-based information systems as tools for Communication and Development in Mauritius .

Miss G. Bojnauth on In vitro regeneration of *Asparagus officinalis* .

Mrs S. Buldewo on DNA-fingerprinting of *Anthurium* varieties .

Mrs S. Facknath on Host-Plant relationships of *Liriomyza* with special reference to *Solanum tuberosum* .

Mrs A. Gungoosingh-Bunwaree on Microbial flora of raw sugars .

Miss L. Forget de Villerfaux on Application of molecular markers for the genetic analysis of modern sugarcane varieties (*Saccharum spp. L.*) .

Mr M.H.R. Khoodoo on The development of a molecular diagnostic tool for the detection of *Xanthomonas campestris* pv. *Dieffenbachiae*, the causal agent of anthurium bacterial blight .

Mr B. Lalljee on Micronutrients status of soils of Mauritius and strategies for their correction .

Miss M. Levantard on An integrated approach for transplants production and stand establishment in tomato (*Lycopersicon esculentum*) .

Miss B.H. Meeah Khan on A study on the improvement and conservation of cucurbit seeds .

Miss A. Nain on Identification of banana varieties using molecular markers .

Ms R.D. Pather on Diuron transport by run-off from a sugarcane field in the super humid region of Mauritius.

Mr D. Puchooa on Investigation of the tissue culture response of litchi (Litchi chinensis).

Mr A.S. Rojoa on Desiccation studies on wild coffee germplasm .

Mrs G. Ramasawmy-Chellen on Potassium supplying capacity of soils under sugar cane cultivation .

Mr S. Seeruttun on Weed competition and prediction of field losses for a rational weed management in sugarcane .

Mrs N. Taleb-Hossenkhan on The determination of the molecular basis of resistance in potato to the pathogen phytophthora infestans, the causal agent of potato late blight disease .

Miss S. Venkatasamy on Dioecy in endemic Diospyres species on the island of Mauritius .

New proposals submitted

Mr M. Chooneea on The effect of irrigation of fertilisation regime in Mauritius, namely nitrogenous fertiliser .

Miss B.R.B. Heetun on Application of organic supplements to improve crop productivity .

Mr N. Mawlah on Seed-borne bacterial pathogens for the production of clean seed in bean (Phaseolus vulgaris).

Mr Z. Mungloo on A study of quality systems implementation in the food organisations in Mauritius .

Mr M. J. Soogund on Edible coating effects on storage life and postharvest quality of tomato (Lycopersicon esculentum) .

Miss S. A. Vytelingum on An evaluation of the Mauritian Food Control System in an attempt to determine its equivalence to other Food Control Systems .

The registration of the following students was upgraded to PhD:

- (a) Mrs S. Facknath
- (b) Mrs N. Taleb-Hossenkhan
- (c) Mr H. Khoodoo

The following two candidates submitted their theses:

- (a) Mr D. Puchooa (PhD thesis)
- (b) Miss R.D. Pather (MPhil thesis)

EXTERNAL EXAMINERS

Name	University	Programmes	Date of Visit
Prof. H.F. van Emden	University of Reading	BSc (Hons) Horticulture with spp. In Plant Biotech. + BSc (Hons) Horticulture with Business Management	7th to 13th June 2003
Prof. D.L. Pyle	University of Reading	BSc (Hons) Food Science with Marketing + BSc (Hons) Agric. with Food Science	5th to 13th June 2003
Prof. C. Garforth	University of Reading	BSc (Hons) Agric with spp. in Agricultural Extension + BSc (Hons) Agric with Environmental Science	7th to 13th June 2003

STAFF MATTERS

Appointments

Miss R. Nowbuth was appointed Assistant Lecturer/Lecturer in the field of Agronomy and Horticulture and assumed duty on 7th October 2002.

Dr (Mrs) V.M. Ranghoo-Sanmukhiya was appointed Assistant Lecturer/Lecturer in Biotechnology and assumed duty on 3rd January 2003.

Miss D. Sookun was appointed Technician/Senior Technician in the field of Agricultural Biotechnology with effect from 3rd March 2003.

Mr O. Accajeea, Mr D. Moheeputh and Mr G. Murday were offered appointment as General Field & Office/Premises Worker/ Nurseryman/Gardener and assumed duty on 2nd June 2003.

Promotion

Miss B. F. Peerbux was promoted from Clerk/Word Processing Operator to Senior Word Processing Operator with effect from 27th March 2003.

Retirement

Dr S. Goburdhun, Associate Professor retired on 24th July 2003.

Resignation

Miss R. Nowbuth, Assistant Lecturer/Lecturer resigned on 28th July 2003.

Mrs S. Jagambrum, Technician/Senior Technician resigned on 28th July 2003.

STUDY ATTACHMENTS/VISITS

Attendance at Seminars/Conference/Workshop

Mr K. Boodhoo, Assistant Lecturer/Lecturer was granted special leave from 8th to 11th April 2003 to attend the UNFCCC Workshop on the use of the guidelines for the preparation of national communications from non-Annex I Parties at Le Berjaya Hotel.

Dr (Mrs) F. Driver was granted special leave on 6th and 7th February 2003 to be part of the Audit Team of SGS, which is a University-based Consultancy.

Mrs D. Goburdhun, Senior Lecturer proceeded to Réunion Island from 24th to 27th February 2003 to deliver lectures in Food Toxicology to students of IUP Agroalimentaire, Université de la Réunion.

Dr (Mrs) Y. Jaufeerally-Fakim, Senior Lecturer was granted special leave

- (i) from 28th to 30th October 2002 to attend a 3-day workshop on Biosafety and Risk Assessment in Agricultural Biotechnology at the MSIRI.
- (ii) from May to June 2003 in connection with a post-doctoral attachment at the Jodrell Laboratory of the Royal Botanical Gardens at Kew, UK.

Mr B. Lalljee, Senior Lecturer was granted special leave

- (i) from 18th to 20th December 2002 to attend and present a paper at the 2nd International Conference on Sustainable Agriculture, Water Resource Development and Earth Care Policies, New Delhi, India.
- (ii) from 13th to 16th May 2002 to participate in the Editorial Board Meeting of the Journal of African Soils in Bloemfontein, South Africa.

Mr D. Puchooa, Senior Lecturer was granted special leave

- (i) from 28th October to 1st November 2002 to attend a workshop on Biosafety at the MSIRI.
- (ii) on 6th March 2003 to attend a 1/2 day seminar on Biodiversity and Traditional Knowledge and a meeting on Plant Breeder s Rights and Geographical Indicator at the Ministry of Agricultural, Food Technology and Natural Resources, RØduit.

Mr B. Rajkomar, Senior Lecturer was granted special leave

- (i) on 6th March 2003 to attend a 1/2 day seminar on Biodiversity and Traditional Knowledge and a meeting on Plant Breeder s Rights and Geographical Indicator at the Ministry of Agricultural, Food Technology and Natural Resources, RØduit.
- (ii) from 24th to 28th March 2003 to participate in the FANRPAN Regional Dialogue on Agricultural Recovery and Trade Policy Measures for Southern Africa in Gaborone, Botswana

Mr R. Ramchurn, Senior Lecturer was granted special leave to attend the 27th World Veterinary Congress at Tunis, Tunisia from 23rd September to 4th October 2002.

Mr A. Ruggoo, Assistant Lecturer/Lecturer has been granted an additional year of study leave without pay with effect from 16th January 2003 to continue with his doctoral studies.

Mrs J. Santchurn, Assistant Lecturer/Lecturer was granted study leave from 31st July to 31st December 2002 and from 21st July till 31st December 2003 to allow her to proceed to RØunion Island in connection with her PhD.

Mrs B. Tatayah, Assistant Lecturer/Lecturer was given special leave to attend a 1/2 day seminar on Motivation to entrepreneurship, resource utilisation and enterprise performance at the Mauritius Research Council on 15th October 2002.

Dr D.R. Vencatasamy, Associate Professor was granted special leave from 6th to 20th May 2003 to attend a conference on Vulnerability and Small Islands Developing States: Exploring Mechanisms for Partnerships held in Montego Bay, Jamaica.

VISITORS

Name	Date
Dr M. Pillay IITA Eastern and Southern African Region Centre Uganda	07.08.02
Dr C.S. Prakash Director of the Centre for Plant Biotechnology Research Tuskegee University, USA.	08.08.02
Dr S. Kochhar, ITEC Consultant, India	06.02.03

PUBLICATIONS

Aumjaud, B. (Mrs)

Bahorun, T., Aumjaud, B., Ramphul, H., Rycha, M., Luximon-Ramma, A, Trotin F, & Aruoma ,O.I., (2003). Phenolic constituents and antioxidant capacities of Crataegus monogyna (Hawthorn) callus extracts. Nahrung Food 47 (3), 191-198.

Munbodh, R.S. & Aumjaud, B. Quality attributes of Marquise strawberry cultivar , 6th Meeting of Agricultural Scientists, MSIRI, (May 2003) .

Govinden-Soulange J. (Mrs)

Govinden-Soulange J. (2003). Effect of light and cytokinins on secondary metabolism in cell suspensions of *Psiadia arguta* (Pers.) Voigt. University of Mauritius Research Journal (In Press).

Besse, P., Da Silva D., Humeau, L., Govinden-Soulange, J., Gurib-Fakim, A., Kodja, H. (2003). A genetic diversity study of endangered *Psiadia* species endemic from Mauritius Island using PCR markers. *Biochemical Systematics and Ecology*. 31: 1427-1445.