

DEANS COMMITTEE AWARDS

Research plays a key role in enhancing human knowledge and property and accelerating socio-economic progress. Today, Research has become the most important factor in international competition as nations struggle for scientific and technological progress.

Nairobi University, with massive support from the government and private organization, has been instrumental in spear-heading research in Kenya.

Each year, the University spends Shs. five million, allocated by the Kenya Government, on Research and travel grants alone. The amount is normally split between Research and travel grants. Research consumes about three million shillings while travel grants annually gets Shs. 1.5 million. The rest is allocated to Kenyan Lecturers abroad who wish to conduct their research locally. Travel grants enables Lecturers to participate in local and overseas symposias or conferences thereby enabling them present papers and exchange ideas with their colleagues elsewhere.

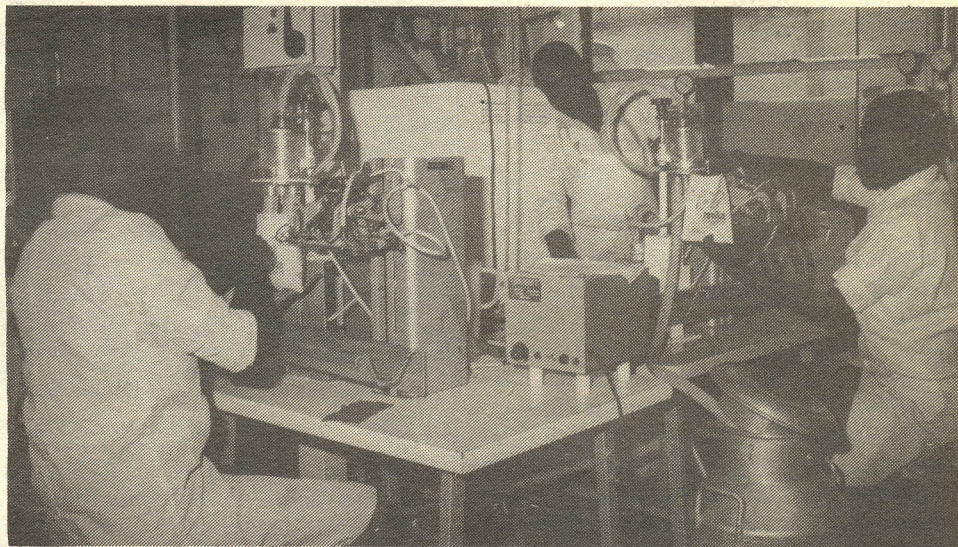
The Deans Committee is the body responsible for processing applications and requests for research and travel grants.

Mrs. A.W. Ng'ang'a, Secretary to the Committee recently disclosed to varsity focus a list of the latest recipients of travel and research grants. The awards were approved by the Committee during its resumed 179th meeting held on February 7, 1989.

the ideal temperatures at which Tilapia fish grow fastest and their nutritional value.

If successful, the results of the project would boost Tilapia farming and consumption in Africa.

Dr. S.J. Gaciri of the Department



Packaging of Mala milk at Kabete Campus: Intensive research, the key to progress.

Dr. Gabriel Mutungi of the Department of Animal Physiology has been awarded KShs.79,800/- to investigate the effects of temperature on muscle development and growth in Tilapia.

The Research seeks to establish

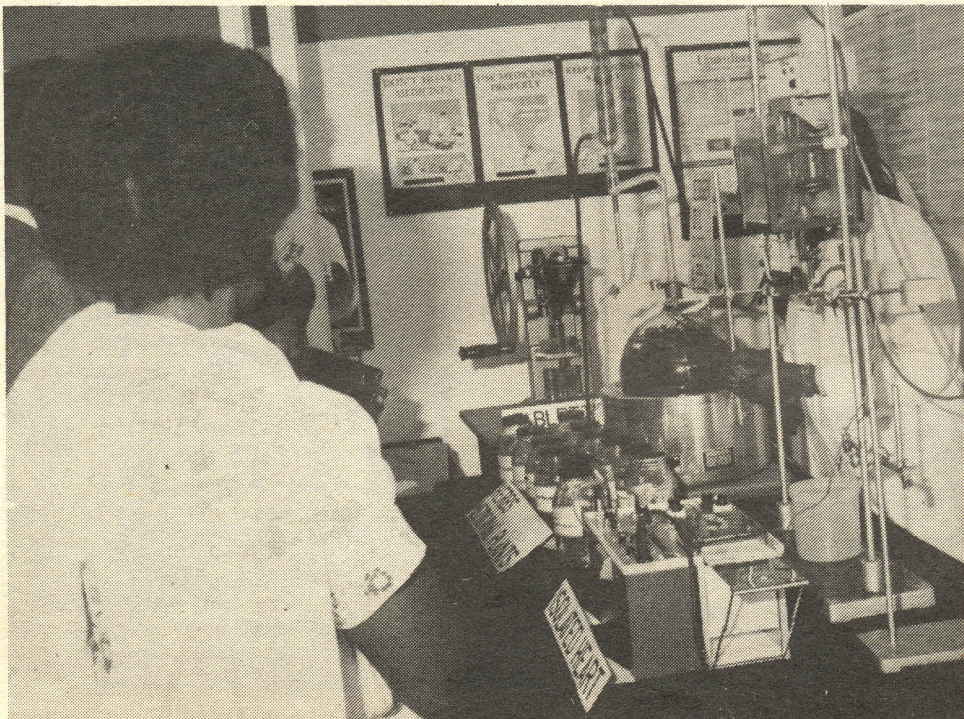
of Geology was granted KShs.27,625/- to undertake a research project entitled 'Lineament map of Kenya'. The project is crucial in interpreting and matching Lineaments to geoseismological data, correlated to geothermal areas, mineral locations and locating possible oil Basins in Kenya.

Dr. Kimani Waithaka received KShs.65,842.40 to continue his research project on the cassava Tissue culture.

Cassava is the fourth most important source of food energy in the tropics. It is a major staple food, and an important and cheap source of calories.

Dr. Kimani's project seeks to explore the possibility of manipulating genetic composition of existing cassava varieties. This would be a major breakthrough in the introduction of disease resistant and high yielding cassava varieties. Kenya which has vast areas of arid and Semi-Arid land would benefit tremendously in terms of food production (cassava), if the project succeeds. Dr. Kimani is a lecturer in the department of Crop Science.

Dr. T.I. Kanui of the Department of Animal Physiology was awarded KShs.29,815/- to investigate the implications of thermotherapy in medical science and the possibility of popularising it in medical practice and application.



A medical scientist explains a point to curious members of the public during last year's Nairobi International Show.

Thermotherapy is a traditional method for the alleviation of pain of diverse origins in many communities. Thermal treatment is perhaps the only cheap, easily available and effective analgesic in rural areas. It has no side effect when properly administered and yet is rarely prescribed by medical practitioners.

The project is also being funded by the University of Edinburgh and NORAD KEN 046 project.

Dr. J.O. Midiwo received KShs.98,000/- to continue his research on "chemical screening of Kenyan authentic plants". The results which he hopes to obtain would increase understanding of the chemical composition of polyoium secondary chemicals.

This may improve existing technology for chemical control of snails which spread bilharzia. Bilharzia is a major disease in the tropics and Kenya in particular. Dr. Midiwo is a Lecturer in the Department of Chemistry.

Dr. Kimani is investigating possible application of plant cells and tissue culture biotechnology in propagation, genetic improvements and disease control. With the help of genetic mapping and engineering, scientists are now able to improve crops by transferring genes from wild strains.

Dr. M.S. Chuol of the Department of Botany was awarded KShs.50,000 to conduct a research on the "Bryophyta Flora of Mt. Kenya". The study seeks to improve our understanding of the lower plants and the role they play in maintaining climate equilibrium along mountain areas.

Mt. Kenya, for instance, is an important water catchment area which gives rise to numerous river systems that serve countless farms found at lower altitudes. Consequently any improvement on our knowledge of existing plant life in such areas would boost our conservation efforts not only of the plants but also of the catchment areas.

From the Department of Human Anatomy, Prof. James K. Kimani was awarded KShs.189,670/- to undertake a research project on the "Structural organization and innovation of the Giraffe Blood vessels with comparative Data from the Camels."

Prof. Kimani aims at investigating the structure, growth and development of the Giraffe's blood vessels and the heart. Giraffe has been a subject of speculation and erroneous conclusions because of its unique Haemodynamics due to the long neck.

Prof. Kimani's research aims at correcting such erroneous conclusions. In medical science, the giraffe is a suitable example of a natural hypertension. Understanding of the mechanisms that underlie its mode of adoptive hypertension will throw light in treating human hypertension.

The project is largely departmental and a number of Junior academic staff and B.Sc. students will participate under Prof. Kimani's guidance.

Dr. Stephen M. Njiro of the Department of Veterinary Pathology and Microbiology received KShs.91,880/- to undertake a research project entitled "Immuno Suppressive Properties of

Spirostachys venenifera pax".

Venenifera pax is a Kenyan plant believed to have the potential for immuno suppressive agents used in transplantation surgery. Dr. Njiro's research would be a significant contribution to the kidney transplant operations technology. If successful, it would establish the effectiveness of *spirostachys venenifera pax*, as an immuno suppressive chemotherapeutic agent.

Humanity already benefits from the genetic heritage of little known species. Some 25% of the pharmaceuticals in use today contain ingredients originally derived from wild plants.

RESEARCH ABSTRACT

CREDIT AND SAVINGS IN RURAL KENYA

AN EXAMPLE FOR KISII

by Philip Raikes

Academic and professional writing on rural credit in Africa and Kenya focuses almost solely on lending through state - or donor-funded institutions. A premise of much of this literature is that credit programmes are needed because lack of credit inhibits agricultural modernization. This paper questions every aspect of this statement. Firstly it is unclear how much of this "rural credit"

"The combination of formal and informal rural banking structures and mechanisms, which is emerging, seems increasingly capable of meeting the needs of those normally served by such structures"

even increases the funds available to agriculture; when combined with investors' own funds, it may have the opposite effect. Secondly, it is still less clear that the effects of such programmes are positive, especially for poorer peasant farmers. Direct effects are hard to assess, since they are over-shadowed by weightier

factors affecting crop production, like international price-trends and the impact of marketing, through increasing the indebtedness of co-operatives, which then lower prices or provide poorer services to their members.

The main aim of the paper is to show the falsity of the underlying premise; the lack of local credit. In the area studied, a wide variety of mechanisms for borrowing, lending and saving accounts for a far large volume of transactions than donor-funded programmes, even at their late-1970s peak. Much of this is short-term credit, at interest-rates which are often too high for investment in production (as opposed to trading). But this reflects, as much as it director, the structure of investment opportunities. It is certainly not a lack of credit. Nor is it "just" consumer credit, though one can doubt the usefulness of that distinction, when peasant farm and household are so intimately linked that transactions in one sphere must affect those in the other(s). The combination of formal and informal rural banking structures and mechanisms, which is emerging, seems increasingly capable of meeting the needs of those normally served by such structures. But it seems to offer little or the poorest rural strata except the prospect of indebtedness and quite possibly consequential loss of land.