

COMMONWEALTH VETERINARY ASSOCIATION



NEWS

F.ditorial



The earthquake in Maharashtra, India has left a trail of devastation, misery and suffering to thousands of people in the region where more than 3000 harmle inves have been lost and more than 10000 animals have either died or have been destroyed on humanitarian grounds. The details of the earthquake have been destroyed on humanitarian grounds. The details of the earthquake have been published elsewhere in this issue of CVA News. The calamity has one eagain stressed the need for disaster preparedness on a warfooling, as time and again stressed the need for disaster preparedness on a warfooling, as time and open countries, that to developing countries, have been hit by cyclones, huricanes, floods and earthquakes. Most of these countries are ill equipped for relativor's escapedulir in animal wellay!

The Commonwealth Veterinary Association at its last Program review meeting at Claws has set in motion a program to secure training in disaster preparedness for CVA veterinarians. This program needs to be initiated by all the national associations of those countries such as Bangladesh, Pakistan and India in the Asian region, W. Samoa and other Pacific Island countries in the Australiasian region and the Carbbean region, who are more terupently affected with such calamilies. Regional Representatives of these regions should prepare projects to deal with such calamilies including disaster training and send it to the CVA who could then seek the help of professional agencies in training veterinarians from these regions. One or two workshops on this subject could also be organized.

The CVA during 1993 had its Program review meeting in Ottawa and the resolutions of that meeting have already been implemented to a great extent. Two Regional workshops one in New Zealand and the other one in Tanzania have proved very fruitful especially the one in Africa. The details of the African workshop will be published in the next issue of the News.

With each year passing by,the CVA is becoming more and more mature both in its commitment to the profession and to its obligation to the fameway by initiating farmer oriented programs through the national associations. With the active support of the Commonwealth Foundation and a dedicated tend of Executive, Council Members and Office beavers of National Associations, the CVA is going to strive hard to fulfill is commitments and achievies to goal or

Wishing you a very happy and prosperous New Year.

January, 1994

S.Abdul Rahman Editor

Dr. S.Abdual Rahman

COMMONWEALTH VETERINARY ASSOCIATION NEWS

Volume 9 January 1994 No.1 Editorial Board Dr.B.N.Touray Dr Rert Stevenson Dr W I Prvor Dr Fazlul Hoone CONTENTS Dr. Keith Amiel Dr. Jalaludin Sved Dr.Lebohang Khomari Page Dr.William Amanfu Dr.Laura J.Bowen Editorial Inside Cover Page Dr I T Rlackburn President's Column Published and Printed by Commonwealth News Mrs Shireen Rahman Intervet Publishers 124/2, 7th B Main Road CVA News IV Block (West) Javanagar Bangalore 560011 INDIA Regional News Acia In Association with Commonwealth Veterinary Australacia Association Canada Caribbean 23 Advertising Enquiries East, Central and Southern Africa Secretary Treasurer West Africa Layout & Typeset by U.K. Mediterranean 38 Sapthagiri Graphics No.30,4th Block West Javanagar, Bangalore, India General Articles Abstracts 44 Editor



Presidents Column

Once again it is a pleasure for me to send greetings and share my thoughts with colleagues throughout the Commonwealth through the medium of the CVA News.

I am particularly pleased that our various scheduled projects are moning ahead as planned and we even breaking new grounds. The Australian Workshop billed for Wellington, New Zealand has taken place and the East, Central and Southern African Workshop will take place in Arusha at the very time that the next edition of the News is being printed. A female colleague in Zimbabwe Dr. Hove is the first recipient of the CVA Travel grant which will enable her to visit and interact with Commonwealth professional colleagues in Queensland, Australia.

If the response of the member Associations in the ECS region with regards to the payment of subscriptions is amylthing to go by, the decision of the Executive to link CVA support to individual association's financial status in the CVA, has been a prudent and effective one. In any case the ECS member associations must be commended for their demonstrated interest and commitment. It is my hope that their forthcoming regional council meeting will be able to solve the chronic problems of poor communication, low rate of subscription payment and inactivity in that region. As of now, the Canada/Caribbean remains the only region where we have problems with non-payment of subscriptions.

With the refreshing news of the successful visit to Nigeria by Dr. Willie Amanfu. the West African Regional Representative, I hope the Nigerian Veterinary Medical Association will become more involved and measure up in proportion to the individual requests received from that country. It is my wish that the planned visit to Sierra Leone will be as successful.

Our major challenge still remains the involvement of, and bringing the benefits of membership to the ordinary membership throughout the Commonwealth, especially in the rural areas of the member countries. I believe that the best way to bring this about is to organise more broad-based activities at regional and national levels. Although limitations on funding may affect our ability to do this, we should endeavour towards self-reliance through local fund raising in order to implement such activities, which may attract funding from other non-governmental organisations (NGOs) helping the same farmers that our profession is also targeting. The Executive would welcome suggestions from Councillors or any other.

Wishing all of you a Merry Christmas and hoping that the CVA will continue to prosper during 1994.

Januaru, 1994

Bakary N. Touray President

Commonwealth News

Raiiv Gandhi Initiative To Work For Peace

s a tribute to the memory of Raily Gandhi, a group of eminent personalities met in New Delhi on 1-2 May 1993 to launch the Raily Gandhi Memorial Initiative for the Advancement of Human Civilisation

At the conference convened by he Raiiv Gandhi Foundation, parscipants included former Presidents Diusegun Obasanjo of Nigeria, J.R. Javewardene of Sri Lanka and R Venkataraman of India and former Prime Minister David Lange of New Zealand .

Commonwealth Secretary-General Emeka Anyaoku was a special quest. In his address, Chief Anyaoku

of international and human relations. In the ultimate analysis, civilisation was sustained by human value. not material ones. The survival of mankind would be secure and meaningful only if the right values governed national and international conduct. Central to such a value system must be a belief in a common. numanity.

said the initiative began a new chapter in the history



The Declaration asserts that 'peace must begin in the human mind', and calls for a new ethic of non-violence in human and international relations It also seeks the reduction and ultimately the elimination of nuclear weapons, coupled with a comprehensive UN-controlled global security system. It further advocates more resolute measures against dehumanising poverty and environmental degradation, and seeks the promotion of democracy.

Canada's New Prime Minister

With the Canadian premiership passing to Ms. Kim Campbell, the 46-year-old wer from Vancouver, British Columbia. the Commonwealth has four female leaders

It is a feat which has surpassed 1980s. when Margaret Thatcher of Britain, Funenia Charles of Dominica and Indira Gandhi of india shared the Commonwealth stage. Cursently, Dam Eugenia, Dominica, Khaleda Zia Bangladesh and Mrs. Benazir Bhutto of Pakistan are the other three

Ms Campbell won her party's leadership conlest by a close ballot in mid-June. She was sworn in



shortly afterwards as the first woman Prime Minister in Canada and the first westerner to assume the leader's mantle since the late 1950s. Ms Campbell is young, dynamic and considered feisty intellectual - she did graduate work in Soviet studies and has taught at the university level.

She takes over from Mr. Brian Mulroney who announced his resignation in the spring after nine years in power.

Ms Campbell was first elected to Parliament five years ago and quickly rose to the cabinet posts. responsible for Indian Affairs, Justice and, finally, Defence.

CABI Review '93: Removing The Bugs

Although a Darwinian survivor among intergovernmental organisations, CAB International has a problem says its Director General: it is inundated with bugs.

While 80 per cent of the estimated 12 million micro-organisms in the world remain unidentified. Dr. Douglas Laing told a gathering at CABI's triennial review conference that the organisation spends too much time making identifications on the known 20 per cent. Last year, for example, CABI made 13,000 identifications at a cost of about £ 100 each. By sharing the work of taxonomy. CABI could concentrate on discovering new micro-organisms, while helping developing countries increase food productivity the lattice.

At the mid-June conference held in London, CABI also announced it will intensify efforts to penetrate Central and Eastern Europe and the former USSR where there is 'good but isolated science'

CABI also adopted measures to become self-reliant by 1995. Thirty-three member governments and observers from 22 non-member countries and 19 international organisations attended. CABI provides services to agriculture and the environment. COMMONWEALTH HEADS OF GOVERNMENT MEETING CYPRUS, 21 to 25th OCTOBER, 1993



CHOGM '93

The logo for the 1993 Commonwealth summit released by the Goot of Cyprus had the doves (part of the official emblem of Cyprus as usell as symbol of peace) responding to the messages of the Commonwealth. It is a source of strength and creativity and the doves the towards it.

" A stand can be made against invation by an army; no stand can be made against invasion by an idea

- Victor Hugo (1802-85_



L to R : Dr. Daniel N. Kisauzi, from Uganda lecturing at University of Zambia, Dr. J.T.Blackburn, Dr. F.O. Ayanwale, University of Ibadan, Nigeria, Prof. Peter Msolla, Sokoine University, Tanzania

Fifth Joint FAO/WHO Expert Consultation on Veterinary Education.

Dr. J.T. Blackburn, Program Director, CVA participated at the above meeting at Rome, Italy from 7 - 10 September, 1993.

Fifteen participants from various parts of the world including 3 from Australia and one from Canada attended the meeting. Various topics on Veterinary Education were discussed.

COMMONWEALTH FOUNDATION'S NEW DIRECTOR

The Foundation's new Director, Dr. Humayun Khan, is a veteran Pakistani diplomat.

A year ago, Dr. Khan relinquished charge as Pakistan's High Commissioner in the UK and took up research in Cambridge on Indo-Pakistan relations. The topic was a natural choice for one whose family halled from the mountainous terrains, around Peshawar, who grew up through school in India and college in Birtain, to serve his country both at home and abroad - in Moscow, Dhaka, New Delhi, Geneva and London.

Dr. Khan looks back on his lirst diplomatic posting as charge d'affaires in Moscow as "a very educative experience". His work in Geneva as Deputy Permanent Representative of Pakistan to the UNI, he describes as most rewarding where his involvement in the UNCTAD negotiations on debt relief for underdeveloped countries brought a great sense of achievement, with hope of a fairer future.

But the high watermark of his career as a Pakistani diplomat, he says, was his posting as Amhassador in India. The paradox is that those years saw some moments of great tension between the two countries "We were able to contain our differences and defuse a number of crises", he says. He left India with strong personal friendships but with "a sense of unfulfillment" for although "our goals and objectives seem clear. our pattern of relationship is such that for each step forward one goes two steps back".



So, what role does he see for the Foundation which he is now to steer? He sees a moral role for it and rests his hope on the positive strength of human nature, thus on people. The people of 50 different countries of the Commonwealth have little in common except history. Yet, they have turned the negative experience into something positive, a wonderful reflection on human nature, he points out.

"It is people who make begings" he asserts. Hence, the relevance of the unofficial Commonwealth in building a two-way process of understanding between cultures that have viewed one another through history's stereotypes. The Foundation may be small in size, but it is an important organisation of the Commonwealth', he says, in as much as it footester feedom in the exchange of experience outside obligatory structures.

In its own way the Foundation has fostered hundeds of personal friendships across all kinds of divisions. The years ahead promises many more. In the North West frontier lands that nestle among the Hindukush mountains, the word 'friend' is special and never uttered casually.

- Common Path Oct, '93

Electronic Neurostimulator For Suppressing Pain And Relaxing Horses

The 'Happy Halter' for horses is a cranial electronic stimulator lizzing advanced proprietary and patented technology. MEDI Consultants lic., which developed the "Happy Halter," claims that I will reduce stress a sociated with transportation, medical diagnosis and treatment, competitive performance events, and during the "cool down" period following strenuous workout, or just as part of regular grooming.

The "Happy -Halter" described as utilizing an advanced and unique multiple frequency blending and modulating technique, significantly stimulating the neurobiochemicals of the cerebral spinal fluid (CSF) and blood plasma with very little energy. The horse is sedated by normalization of its own natural neurochemical system. MEDI Consultants Inc. state that clinical tests have shown that the "Happy Halter" drastically alters serotonin, cortisol, adrenocorticotropic hormone and beta endorphins, which are neurotransmitters, that, when altered in the blood plasma and CSF, directly affect physiological functions.

The "Happy Halter" is marketed by MEDI Vet Inc. and comes complete with instructions, stimulus generator and required accessories for easy at-

tachment to the horse's halter. Human Listeriosis Epidemic In France

Between May and December 1992 at least 279 people in France were infected by a single strain of listeria type 4b. Sixty-three people died and 22 women miscarried.

After a long enquiry, public hath investigators identified the source as pork tongues in jelly. Testing dicitatesen tooks showed 203 lediclatesens tooks showed 203 lediclatesens tooks showed 203 lediclatesens tooks showed 203 lediclatesens took showed 203 lediclatesens took show and some cheeses. Listeria type 4b was found to be widespread in pork tongues in jelly. The same type was also found on utensits used to cut meats sold at the same counter as pork tongues.

- New Scientist 27 February, 1993.

Women in Politics

Women in Commonwealth

Guyana 36.9% Trinidad & Tobago 16.7% Dominica 16.7% New Zealand 16.5% Seychelles 16.0% Canada 13.2% Uganda 12.2%

Zimbabwe 12.0% Tanzania 11.0% WORLD AVERAGE OF WOMAN MPs - 11%

Bangladesh 10.3% Malawi 9.8% Britarin 9.23% The Gambia 7.8% Tuvalu 7.7% India 7.1% Mauritius 7.1% Namibia 6.9% St Kitts & Nevis 6.7% Australia 6.7%

All other Commonwealth Governments had less than 5% or no women in Parliament. Source: Survey of Women MPs, Inter -Parliamentary Union, 30 June 1991



Kicking a ball around can be fun for a human. For a pg.
who knows? Playing with the 'football' has a tastreward - food - a fine incentive for a pig.

The pig (in this case a sow) quickly finds that as be bell so rolled, food is dispensed. It has been filled with pa food pellets by the farmer or herdsman and, in a mame that mimics the natural distribution of food in the wid, it delivered randomly in time, space and quantity. It is possible to get a joig to push at for rowly the device for 70 event of its active day. But the herdsman, by adjusting the internal metering of the pig pelles, still controls the amount of food the pig can roceive through a small hole in the ball's lastics surface.

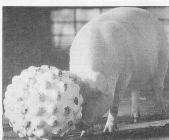
Designed by scientists at the Scottish Agricultura College (SAC) in Ediriburgh, around the natural teeding behaviour of pigs which mainly involves walking and rooting the ground, the football induces pigs to exercise in the pen counteracting what a layman might call the animal's propensity to become bored and thus to develop stereotypies (neurotic behaviours).

Under semi-natural, or wild conditions, sows will spend much of their active time foraging for food to satisfy their hunger. Under Intensive farming conditions, sows are also often hungry, but are largely denied the opportunity to forage which often results in stereotypies, such as chewing

> endlessly on a chain. By 'playing' with the ball, pigs are taught to imitate animals in the wild, and are healthier as a result. Football rooting also makes them fitter with less leg problems, and less aggressive.

> Pilot studies suggest that it may be used successfully with groups and similar devices will be useful in reducing behavioural problems in a variety of animal species, including dogs, and primates in zoos.

For further information, contact: Scottish Agricultural College Edinburgh, Genetics and Behavioural Sciences Department, Bush Estate, Peniculk, Midlothian, Scotland. Tel: 031 445 4811. Fax: 031 445 5687.



Commonwealth Foundation A Special Report 1966 to 1993

The Commonwealth Foundation has published a book entitled "Commonwealth Foundation A Special Report 1966 to 1993"

This elegant document is an assessment of the achievements of the Foundation. Working as it does with the unofficial Commonwealth, the Foundation sees the full of its work through the words of the individuals and groups it has had links with, through a focus on specific and selected cases and projects that it has helped and through the analyses of the large volume of facts and figures stored in its archives.

The Special Report of the Commonwealth Foundation is in-troduced by its Chairman Sir Richard Luce - "We can claim with confidence that the Foundation has successfully promoted contacts in the unofficial Commonwealth and, in disproportion to its modest size has helped people of the member countries to work even more closely together." The Report proceeds in three chapters to describe and analyse the three main sectors in which the Foundation works,

namely, the NGO sector, the Professional Associations and Centres, and Culture. Cutting across these sectors are the three main activities of building networks and links, facilitating training and exchange, and promoting the Commonwealth. Within this framework are set the various elements of narrating the stories of people and processes, responses, brief reviews and a wealth of information depicted graphically.

Primarily a grantmaking institution the Foundation has laid its figures clearly on the table and more, has analysed them from various comparative perspectives. The quantifiable, however, is not the right measure for this kind of endeavour. The report blends the quantifiable attractively with the unquantifiable by the deft and generous sprinkling of quotations and testimonials from both. governmental sources and the Commonwealth's civil society. These voices lend a special interest to the document.

This little book is going to be useful to many - those seeking general information about the Foundation, those looking for links in the Commonwealth network, the seeker of grants, other grantmaking bodies and of course, the officers and decision makers within the governments of Commonwealth countries. A pull-out on facts and figures is designed to sepue special interests.

FOR YOUR RECORD

In the five year period 1988-1993, the 32 Commonwealth Associations funded by the Foundation:

 held 102 conferences at which 11,335 people participated

 staged 209 workshops, seminars and training courses which increased the skills of 17,278 people

 implemented 174 exchanges and advisory visits

 produced 131 reports and articles documenting their findings and results.

Guyana To Provide Global Model for Rain Forest Development

The İwokrama Rain Forest Programme in Guyana, a Commonwealth initiative first proposed at the Commonwealth Heads of Government Meeting in Kuala Lumpur in 1989, is entering a new phase.

A recent meeting in London of the Interim Board of Trustees, chaired by Dr. M.S. Swaminathan of India, reported that there has been considerable progress in the last two years. This important and ambitious programme was made possible by the former President of Guyana, Mr. Desmond Hotte, when he offered to set aside 360,000 hectares of virgin rain forest in central Guyana, for a project that would develop methods of sustainable troublements of the sustainable troublement of the sustainablement of the sustainable troublement of the sustainablement of the

forestry use and conserve biological diversity.

Initial funding of US\$3 million came from the Global Environment Facillity, Managed by UNDP, the UN Environment Programme and the World Bank.

- Commonwealth Feature, Nov, 1993

COMMONWEALTH FOUNDATION FELLOWSHIP SCHEME 16 MARCH - 11 APRIL 1992

Report

Dr. Baddley Anita, Solomon Islands

Acknowledgement

As the 1992 recipient of the Commonwealth Foundation Fellowshin I wish to extend my special heartfelt gratitude and thanks to Professor Sved Jalaludin, Chairman of CVA (Australasian Region), Dr W.J. Prvor. Secretary/Treasurer of CVA and Dr. David Banks, CVA Councillor (Australia) for nominating me for the Fellowship Scheme and to OUR Commonwealth Veterinary Association (CVA) for their full support which resulted in me being awarded the Commonwealth Foundation Fellowship. Special thanks also to organisers of the Commonwealth Foundation.

Background

The Commonwealth Foundation The Commonwealth Foundationship scheme is Fellowship scheme awarded annually to members of the various Commonwealth Professional Associations to help promote Commonwealth understanding. The Commonwealth Forfessional Associations nominate candidates to the Commonwealth and the Commonwealth associations nominate candidates to the Commonwealth Forfessional replied with a nunually select the 12 recipients of the Followship.

In 1992, the 12 recipients comprised of 1 Architect, 1 Doctor, 1 TV Broadcaster, 1 Lawyer, 1 Journalist, 1 University Academician (Political Science), 1 Adult education Consultant, 1 Literacy Director, 1 Nursing Sister, 1 NGO Environment planner and 2 Veterinary Surgeons.

The other Veterinary recipient of the Fellowship was Dr. Ann Godwin of Sri Lanka.

The Fellowship Scheme enables recipients to spend one week in London with the Commowealth Secretariat, appreciating and comprehending the importance and role of the secretariat in the Commowealth today and the organisational structure and the functional implications of these secretariat aims in achieving Commowealth today and the process of the commodities of the commodit

The remaining 3 weeks is spent in 3 developing Commonwealth Member States nominated by the Commonwealth Foundation.

1992 FELLOWSHIP PROGRAMME

- London UK: Highlights
- Arrival 2 nights Briefing at Cumberland Lodge.
- Visit to Windsor castle.
 Learning and understanding
 - the Commonwealth organisation setup. These included Commonwealth Secretariate, Commonwealth Foundation, Commonwealth

Fund for Technical Co-operation (CFTC), Commonwealth Institute and Commonwealth Development Cooperation.

- Tour of the British House of Lords and House of Commons with the Speaker of the House.
- A Courtesy Call on Her Majesty the Queen at Buckingham Palace where we had the privilege of meeting and talking to her Majesty.
- Dr. Ann Godwin and myself were very honoured and thankful for a very warm welcome, lunch and guided tour of the British Vet. Association Headquarters (BVA) at Mansfield Street by Dr. Trevor Blackburn and the friendly staff of the BVA Headquarters.
- We were also taken to look at the Quarantine Facilities at Heathrow International Airport by Dr Stephance (Former Director of Weybridge Research Station, UK) who is currently with BVA's International Section.
- A guided tour was also arranged to the surburbs of London to see where the different ethnic groups live.

Southern Africa

The three nominated countries were Botswana, Namibia and Zambia. From Lon-

don we spent half a day in Johannesburg ("Joburg") before flying to Rotewana

Botswana

- Visits to Heads of the National and Local Governments.
- Discussions with Non Government Organisation (NGO) officials of their Programmes and Set-up.
- Talks with Academicians at the Botswana University and Polytech. ■ Tour of the Botswana
- Veterinary Headquarters and the Laboratories. Trip to the Botswana Wildlife
- Reserve
- Visit to two Tribal clans and to see the cave writings of Early Man.
- Visits to the sites of David Livington's missionary settlements.

Namibia

- Call on the Prime Minister, President and some Ministers.
- Meeting with the Namibian Professional Association.
- Guided tour of the Namibian Veterinary Headquarters and the Diagnostic Laboratory.
- Visit to the Rousing Uranium Mine and to the Diamond Fields.
- Meeting with NGO's and Volunteer Group Officials.
- Trip to the Namibia Desert Research Station and to the Swakupmund Seaside Town.
- Tour of the Namibian Museum. 7ambia
- Call on the Deputy President and the Ministers
- Talks with the Professional Association of Zambia representatives.

- NGO ■ Talks with representatives. Visit to NGO projects and
- schemes Visit and Talks with Drought
 - Management Officials.
- Tour to the Victoria Falls

Tour Benefits

- The tour gives one the full appreciation of the role and importance of the Commonwealth body. The Commonwealth of Nations comprises of 50 member states and one quarter of the worlds population. The Commonwealth body as a family is able to bring together people of different cultural. racial and religious backgrounds. The Commonwealth is a living example of co-operation at an International Level.
- II. The Commonwealth secretariat and its respective arms are pursuing to promote good governance through the democratic process, human rights and sovereignty. Technical Assistance is provided to support these for social economic development and stability. Human Resource Training and Development, sustainable Environment development and other assistance required by the member states.
- III. Her Maiesty, as the Head of the Commonwealth is a Living Symbol of Unity. The role that plays in Commonwealth cannot be denied. I am very privileged to have met and spoken to her Majesty the Queen and believe me, she is a very interesting and amazing person to talk to. Her understanding and concern for people in the

- Commonwealth and the world is amazing and great. This is a major factor why she is loved and liked by the Commonwealth people and Leaders
- IV The Commonwealth Foundation is striving to co-ordinate, promote and appreciate. networking between professionals and non-professionals in both Public and Private sector, This has led to the creation of co-ordinated Liaison Units (CLU) in a number of countries.
- V The tour enabled me to make contact with Veterinary Colleges in United Kingdom, Botswana, Namibia and Zambia. One comes to appreciate the different problems faced by members of our profession, the importance and magnitude of the problem, available technology and approach for control/education. The importance of communication. idea sharing and co-operation is fundamental and essential between Veterinarians. This is what CVA is trying to create
- and maintain. VI. We Veterinarians cannot confine ourselves in our nutshell/to our profession only. We are part of the community or continent or globe. As Professor RN Johnson said, at a key note address for Commonwealth Professionals conference in Sydney 1990, "No Professional is an island." Our profession is one that Links to a lot of other Professions i.e. to the Agriculturist, Economist, Nutritionist, Human Doctor, Researcher and Farmers. We need to break that professional barrier down.

come out and contribute professional expertise to our other colleagues in the other parts of the world and to other Non Professional or Non Government Organisations. Often when Professional expert opinion is sought, the bottom line of the seekers mind is "How much will it cost me". To the Professional it is part of their survival kit. Can our Profession share some of that survival kit to the unfortunate Communities and Organi- sations in both developed and developing countries for the upgrading and betterment of humans and animals in general?

VII.It is a common trend that issues are approached at three levels, the Local, National and International. In a number of instances decision making is based on self interest: what is it there for me, my profession or my community?

The approach I saw was the "You scratch my back and I'll scratch yours" mentality. We only involve ourselves with issues and activities affecting us or whether we get anything out of it. Not all of the Professional knowledge that we have is mystique. mysterious and out of reach to the ordinary person. These are reserved areas of knowledge and practice that only the Professionals can perform and we cannot deny that fact, but a lot of it is now public knowledge. Therefore we. Veterinary Professionals cannot be and ought not to be an Island to our fellow professionals and to the community as a whole.

VIIIAs seen in Southern Africa, the Veterinary Profession is known to both the Upper class and the Lower class due to vested interest in Livestock Development. Key words in this part of the country is "Sustainable Development, Appropriate Technology and Environment Friendly". Our activities always involve one of these three categories and therefore our contribution at the Local National and International Level is fundamental. We are also here to contribute to the education not only of our clients but interested parties and to disseminate any information with regard to the preservation of our environment and the alobe.

I thank you for your time and attention in reading or listening to this very brief summary report of my Commonwealth Funded Fellowship tour to the Commonwealth Secretariat, London and the three Commonwealth's states in Southern Africa.



From the Secretary's Desk

Observer Membership - Following the docision of the Citawa Meeting to allow this category of membership, am pleased to advise that the Animal Health Section of the South Pacific Commission which is located in Fiji, has paid a subscription to become an observer member. Additionally, we are having discussions with both Fiji and the Republic of Cameron, Africa who are considerent this sets.

CVA Travel Grants. Following approval from the ECS Africa RR, the Programme Director and the President; we have just approved the first Grant to Dr. Hove of Zimbabawe who wants to undertake a short wist to the tick research centre in Queensland, Australia. We have a second one budgeted for this financial year which is still lopen to application.

Grant to Tongan Veterinary Student. Following the proposal from the Australasian Regional Meeting, CVA budgeted (\$A 1500) for some linancial support for the only Tongan veterinary student from Tonga. The student, who is studying in New Zealand, has reached fourth year and requests assistance to complete his degree program.

Commonwealth Foundation Fellowships. Four nominations were received but after receiving advice from one of the nominating councillors only two were submitted to the CF in London. They are Dr TK Addai of Ghana and Dr JMM Kamau of Kenya. Thanks are due to those who made nominations in time.









JOURNALS, BOOK AND





Write To : Dr. Douglas Mitchell, Project Co-ordinator, CVA JBAV Programme. Animal Disease Research Institute Box 640. Lethbridge, Alberta TLI 374, Canada

CVA Journal, Book, Audio-Visual Aids Program

A s this program has developed in Canada, it has become increasingly apparent that the distribution of books to the different member countries and the mailing costs involved may not be based on legitimate need or justification. As stated at the March 1993 Executive Meeting in Guelph, the Canadian Co-ordinator at Lethbridge receives all of the request letters from potential recipients. These are screened considering facts such as the status of the requester (practitioner, government employee, faculty member, or institutional representative) and the reasonableness of the request. It is then passed to one of the book depots for action (selection of books sent to those which seem most appropriate and valuable based on the information supplied by the recipient.

A review of requests received between March 1992 and August 1993 (18 months) revealed that 82 shipments had been mailed to individuals in the following countries.

Nigeria-35, India-10, Kenya-9, Uganda-4, Lesotho-3, Guyana, Zimbabwe, Trinidad and Tobago-2 each, Antiqua, Bahamas, Bangladesh, Gambia, Malaysia, Malawi, Namibia, Papua New Guinea, St. Vincent, Sri Lanka, Tanzania, Tonga, Virgin Islands, and W. Samoa -1 each

This distribution includes 23 of the 41 developing member countries, encompasses 9/15 of Africa, 3/4 of Asia, 4/6 of Australasia, and 6/16 of the Caribbean. Of the 35 mailings to Nigeria, two shipments were sent to four individuals and three shipments to one individual.

These figures suggest that there is a need to conduct more stringent methods of assessment to ensure that the distribution of books is implemented more equitably and fairly to all member countries, based on their needs and their commitment to the CVA.

Bearing in mind the fact that the operation of this program is dependent on the voluntary contribution of books and labour by donors and those who are working at the depots, it is essential that we minimize the workload

but at the same time seek ways and means of achieving the most equitable response to requests for books.

With these thoughts in mind. I would like to identify the key elements and concerns which require discussion and decision:

- 1. Publicity. The fact that no requests have been received from 18/41 member developing countries suggests that information about the program may not be readily available to potential participants.
- 1.1 Action required: Regular updates in CVA news: semi-annual updates from Co-ordinator to country representatives; distribution of program information from representatives to recipients orally or through newsletters.
- 2. Screening of Requests. Responsibility should remain in the hands of the Co-ordinator who will ensure that particular individuals and countries to not receive support which is disproportionate to their needs and the program budget. It would be beneficial if council members and country representatives provide the program co-ordinator with background information on veterinary schools, government departments, and other institutions which they consider deserve assistance.
- 2.1 Actions required: Co-ordinator to monitor list of recipients and countries annually. Council and country representatives to provide Coordinator with an overview of the veterinary profession and veterinary institutions in their countries, highlighting needs and concerns.
- 3. Co-ordination with BVA. This is necessary to ensure that no unjustified duplication of effort and resources occurs.
- 3.1 Actions required: Regular (quarterly) exchange of information about programs between UK and

CVA Journal, Book, Audio-Visual Aids Program =

Canadian Co-ordinators. Consideration to be given to division of responsibility by region, e.g., E. Africa, W. Africa, Asia, S. Pacific, Caribbean. Council to investigate possibility of establishing program in Australia/N. Zealand.

4. Receipt of Shipments. Although a reasonable number of acknowledgements have been received, we have had two letters indicating non-receipt after an

CATTLE

BUFFALO

- interval of 6-12 months. Do country representatives know of any problems in clearing parcels through Customs? In Ghana, I believe, some payment may be necessary.
- 4.1 Actions required: Recipients to be sure to acknowledge receipt - or non-receipt-of parcels as requested in air mail letter sent at time of mailing.

CHICKEN

DUCK

FAO Statistics on Livestock Population

(FAO Statistics on Livestock Population of Countries in Asia-Pacific Region, 1992.)

SHEEP

GOAT

WORLD TOTAL	1,289,629	142,176	864,919	1,131,443	562,979	f1,390,000	560,133
Vanuatu	123	Cartains 2	60	200	11	300 -	
Tonga	10	Marin le Ma	60	****	9	200 -	
Samoa, W.	31	Wille, Mr WI	57	- 110000	1	600 -	
Guinea	105	*	1,000	4	2	3,000 7	
Papua New							
New Zealand	8,450		400	53,500	700	10,000F	55
Fiji	158	- 1	15		123	2,700	65
Australia	24,065		2,530	151,008	730F	54,000F	320
OCEANIA							
Vietnam	3,282	2,929	12,583		481F	28,600	
Thailand	6,820	4,793	5,100F	153	144	136,000	17,300
Sri Lanka	1,814	981	102	31	526	9,900 36	
Philippines	1,656	2,569	8,032	30F	2,449	63,000 8,268	
Pakistan	17,745	18,273		27,000	38,564	164,000	1,450
lepal	6,400F	3,160F	598F	925	5,355	71,000 390	
Myanmar Burma)	9,400F	2,080F	2,400F	282F	1,015F	24,000F	3,566
Mongolia	2,849		185	15,063	5,126	300 -	
Malaysia	658	190	185	15.083	5.126	300 -	. 5,000
Laos	916F	1,123F 190	2,400	200	315	148.000	5.000
Korea REP	2,126		4,528 1.398F	3F	143	8.000 310	/30
Korea DPR	1,350		3,300 4,528	390 3F	300F	21,300 - 75,000F	756
Japan	4,980	A Business	3,300	390	300	21,300 -	
ran	6,900	300	10.966	45,000 31F	23,500 36F	335,000	1,050
ndonesia	10,400	3,550F	7,000F	5,900F 45,000	23.500	170,000F	1,650
India	195,950	75,487	10,500F	55,600F	112,500F 11,400F	410,000F 600,000F	9,000° 29,500
China	82,759	21,984	379,739	111,353	95,032	2,200,000F	
Cambodia	2,247F	794F	1,729F			7,700 3,500	368.624
Bhutan	413	4	73	59	38	300 -	
Bangladesh	23,7000F	820F		700F	14,000F	62,000F	11,500
ASIA				24/20/20/20	(C) (1/2)	100000000000000000000000000000000000000	

F = Forecast

COUNTRY

Number in Italic =1991 figures from Selected Indicators of Food and Agriculture Development in Asia-Pacific Region (1981-1991), FAO Regional Office for Asia and the Pacific, Bangkok, Thailand. Source: FAO Quarterly Bulletin of Statistics, Vol. 5, No. 2, 1992.

CVA REGIONAL NEWS

Asia

The undulating countryside of Latur and Osmanabad was awash with colour. Bright vellow stretches of sunflower and mustard contrasted with the rich black of the soil and the soft spread of green the late rains have encouraged. The time was ripe for the sowing of jowar, the primary rabi crop of the region. Exactly at 3.56 a.m. of September 30, 1993, the earth turned over in the dark of the pre-dawn upheaval that engulfed the entire Marathwada region in south eastern Maharashtra, India. As the inexorable tentacles of this earthquake among the worst calamities India has witnessed this century, reached out to jolt many people sleeping snugly in Karnataka, Andhra Pradesh, Kerala, Tamil Nadu, Guiurath and Madhya Pradesh, the rest of India, indeed, the world awoke to more than just the fact that the sesemic activity had registered 6.4 on the Richter scale

With its epicentric south of Umarga in Osmanabad district, the nearest big town being Solapur, the shock waves went out in five spells lasting over two minutes. The first tremor set in at 3-56 a.m. and lasted 47 seconds. The second at 4-41 a m lasted 54 seconds, followed by three more: 6-24 a.m., 12 seconds: 6-34 a.m., 22 seconds: 7-48 a.m., 2 seconds.

Disaster at Midnight



Dead and survivors among the ruins





On a hospital bed, 18 month old who was rescued after 5 days under the debris with her mother whose leg was fractured.

Camps setup with sunflower crop in the background





Orphaned children feeding at a makeshift shelter



Administrating glucose to a buffalo

Every second pushed up the casualty figures and more than 50 villages around an area of about 70 sq.km on both sides of the Terna river in Latur and Osmanabad districts were wiped off the face of the earth. Khillari, a densely-populated village 45 km from Latur in Ausa taluk was the worst affected.

In certain areas such as Sastoor, Rajegaon, Ekondi, Holi, Taushigadh, Mangrul, Killariwadi, Kate Chincholi, Guval, Udhampur and Peth Sanghvi, almost the entire population was wiped out.

The rich black cotton soil of the district is cultivated with sunflower, mustard and sugarcane. It was the time of the sowing jowar (Millet) and all tithe farmers had got the fields ready for ploughing.

After the quake visitors saw only the sound of the stricken villages of the walling of women and the sight of cornations. Homeless women sain in a huddle under trees or improvished shelters made out of bedsheets or sarees, walling for succour. Relief came from relatives in safe villages, who reached out to extend sympathy and solace, and from

private initiative by voluntary agencies and social workers. For several hours, the survivors went without drinking water or food.

In a war like mobolisation, the army set up peace action stations in the affected areas and gave a mighty push to salvage operations.

The task was too daunting for the civil administration.

The relief operations were hampered by VIP movement and rain. This led the army to seal off the place for idle onlookers.

Even disposal of the dead was fraught with difficulties. All that the Government provided were shrouds to cover the bodies with. Wood was in short supply, broken door frames used for cremation. Mass cremation was common, and any open space served the purpose.

Life in relief camps was tough, both for the rich and poor. Incessant rains caused ankle-deep water collections inside the make-shift houses, made of tin or canvas,



Bodies being pushed into a mass grave at Sastur.

rendered the black cotton soil all around the camp slushy. Like such camps any where, hygiene was lacking.

The death roll was the highest in the following villages (figures in brackets is the total population of the village). In Lattur district Khillari : 1 995 (13 208) Khillariwadi : 255 (506) Talani : 1406 (2 630) Limbala Dau : 513 (1 884) Mangrul : 848 (2,113), Ganiankheda: 156 (531), Gubal: 169 (1,127) and Nandurga : 239 (2.606). In Osmanabad the worst-hit villages are Sastur : 1.223 (5.821). Petsandvi : 504 (3.457). Tawsi Gad: 464 (3.184). Hobli: 282 (2.033). Murshadour: 197 (869). Chincholi Rebe : 190 (615). Ekondi Lohara: 149 (933). Udatour: 122 (884), Salegaon: 111 (2.184) and Chincholi Kate : 106 (595)

The official figure is contested by several voluntary groups working in the area as being an underestimation. In fact, to those who have visited any of the affected villages, it is surprising that there were any survivors at all.

The government has distributed seeds to the farmers and fodder to the surviving cattle. The land has to be joughed and bullocks put to work. There is a local Marathi saying that 'When the time comes, one must plough even if it mears putting one's foot on the back of a dead body'. This was proved to be no ture than in Maharashtra during the first week of October immediately after the earthquake.

The toll of animals is also great. Though the official figures out the toll of animals to be around 3000 evewitness have said that more than 10,000 animals mostly cattle have been killed. With priority being given to human lives veterinary aid was initially slow. A team of veterinarians and students from Bombay Veterinary College and the Maharashtra Govt deputed 120 yets and 30 temporary hospitals were established. These yets with the help of other paravets attended to the injured animals mostly fractures and wounds. With continuous rain small ruminants developed pneumonia and died.

In Latur, the worst affected arrea, over 1064 animals, 123 cows, 82 bullocks, 140 buffaloes, 81 calves, 586 sheep and goats and 49 other animals such as ponies, donkeys and dogs had died

During the first 10 days of the earthquake 3941 animals had been treated for wounds, fractures etc., over 25,000 animals were vaccinated against Foot and Mouth diseases, Hemorrhagic septicemia, 'and Black Quarter. Temporary veterinary hospitals were established in 75 villages using tents given by American Aid.

At Omarga, 3 animal camps had been organised to house the stray animals and fodder was provided to them and 25 Veterinary First Aid Centers manned by 15 Veterinarians worked round the clock for 5 days to treat 2988 animals and vaccinate 12177 animals.

The list of animals which died at Omarga was 150 native cows, 11 crossbred cows, 99 bullocks, 50 buffaloes, 534 goats, 97 sheep and 34 others a total of 1044. The death toll is probably more

The RSPCA flew 42 crates of medicine worth Rs 70 000 Other voluntary organisation such as Staff and Students of Bombay Veterinary College, National Institute of Animal Welfare, Nivasa Animal Welfare Society, Nasik, Animal Welfare Board of India rendered great help. The official figures of damage to veterinary institution is Omarga District 8 Veterinary hospitals and 3 staff quarters were completely distroved, and in Lattur 1 polyclinic and 5 veterinary hospitals and 14 residential quarters of veterinariane

A total of 2 million rupees is estimated for rebuilding work of veterinary hospitals and residential quarters in this areas.

USAID sent 488 tents, eight norryloads of plastic tarpaulins, and nearly 5.000 water containers. The British Government sent blankets and 468 tents, apan sent 800 blankets, water blooms, water purifiers, 60 generators, cord reels and emergency medical kits. Pakistan sent 148 tents. CARE (Cooperative for American Relief Everywhere) International has already committed \$30.000 towards relief, according to R.C. Mahajan, Coordinator for Earthnuake Relief of CARE.

Donations have poured in from all parts of the country and the world Relief work has won praise from the Amsterdam based Medicins Sans Frontieres. This international humanitarian, organisation found the relief work speedy and efficient.

Dr.Peter Jordans, a physician from the Netherlands, who paid this compliment, has seen relief work in the aftermath of wars and disasters in Cambodia

Ethiopia, Liberia and Somalia over the last 15 years. He, along with 11 doctors, has distributed a planeload of relief material worth Rs.7 millions in 20 villages in Lattur and Osmanabad districts

He has said that "Doctors in other disaster-struck countries ask us what they should do, but here it is the other way round". "I have never seen so much supply of potable water in a disaster area or experienced so few problems with food. Your disaster management is so good".

At the time of going to the press, rebuilding process has started and is going on slowly.

- Photographs Courtesy Frontline

Foster Animals - Women Feed Orphaned Jackal Cubs

wo ladies, working in a sugar cane field in Maharashtra, India found four new born Jackals. sucking in vain, with cries, at the teats of a Jackal mother. The mother Jackal had died after giving birth to the infants. The women, moved by the cries of the famished young ones picked them up one by one and started breast feeding, one breast for the Jackal and the other for their own child. These Jackal infants were thus saved and reared by the village ladies rendering an illustrious example of mother-craft. - Animal Citizen, 1993





News from Bangladesh

or CVA Asian Regional Conference will be held at Dhaka on 3rd and 4th August 1994. The theme of the conference will be "Veteriany Education in Developing Commonwealth Countries". Details of the conference will be communicated by the regional representative CVA Asian Region Dr. Fazlul Hooue.

Livestock development workshop was held at Chitlagong on 12th and 13th Sept. 1993. It was inaugurated by Mr. Abdullah - Ai - Noman Hon. Min. of Fisheries and Livestock, Bangladesh. A similar workshop was also held at Dhaka on 3rd and 4th Nov. 1993

Dr. Fazlul Hoque Promoted

Dr. Fazlul Hoque, Joint Director, Dept. of Veterinary services and Regional Representative, CVA Asian Region has been promoted as Additional Director (Livestock Research, Training and Evalua-



Helping Bangladesh Get Ready To Face Tommorow's Disasters

The Commonwealth Secretariat held its first in-country 'training of trainers' course on disaster management in Bangladesh in May and June, and is, now considering a similar programme for the Pacific.

The course was designed to develop trainers in the official sector and disaster-related organisations, and the 25 participants in the 18-day workshop in Dhaka were drawn from government, the media, educational institutions and NGOs.

Bangladesh, a low-lying delta country heavily dependent on marginal subsistence agriculture, has among the highest incidences of natural disasters in the world. Preparing for and dealing with flooding, cyclones and the resulting epidemics - on what resources are available to one of the world's poorest

countries - is an enormous challenge to the Government.

Minister of Information Nazmul Huda welcomed this new initiative to improve capacity to respond to disasters, which, he said, had become a way of life in Bangladesh. He instanced the cyclone of 1991 which inflicted massive damage to life and property as well as vast destruction to crops, livestock and cattle through constant flooding, 'Our national economy suffered adverse effects from such disasters.' he said, adding that management training of this kind would help 'to produce preparedness and initiate programmes on cyclones, floods and other natural hazards for the people."

The aims of this new training programme are to:

■ improve preparedness, emergency responses. construction and recovery skills:

- improve personnel management skills;
- prepare trainers to train front-line people from different back grounds in management skills;
- brief trainers on information management, instruction methods and the planning of training in disaster management.

The training workshop was funded by the Commonwealth Secretariat in collaboration with the South Asian Disaster Management Centre (SADMC) and the International University of Business Agriculture and Technology (IUBAT). The Secretariat's Management Training Services Division normally funds training outside a recipient's home country.

News from Sri Lanka

The Sri Lanka Veterinary Association's 46th Annual Congress and Scientific Session is scheduled to be held at Kandy, on 17th & 18th December 1993. Details of the conference will be published in our July issue

News from Pakistan

The First Pakistan Veterinary Medical Association, Punjab International Poultry Conference will be held at Lahore, from 29th to 30th March 1994. The theme of the conference willbe Tuture Prospects of Poultry Trade in Pakistan." 17th Federation of Asian Veterinary Associations Council of Representative meeting will also be held at the same time. Commonwealth Veterinary Association has donated A\$ 1000 for the equipment of Veterinary Hospital to be re-established in the affected area

Australia's population equals a quarter of a percent of the world's population but, in terms of scientific research productivity Australian rank fifth in the world in Agriculture-Verteniary Science, seventh in Engineering and technology, sixth in Environmental, Oceanic and Earth/Sciences, and leads Germany, Japan and France in Citingal Machine

ABC Radio:Science Show

CVA REGIONAL NEWS

Australasia

Commonwealth Veterinary Association Australasian Region Workshop, Wellington, New Zealand, 15th - 17th June. 1993

▲ workshop for members of the Australasian Region of the Commonwealth Veterinary Association (CVA) was hosted by the New Zealand Veterinary Association in Wellington in June.

The theme of the workshop was 'Animal Quarantine in the Asia - Pacific Region and its Influence on Trade for Pacific Island Nations', Participants were invited to consider common quarantine issues with a view to reaching a mutual understanding of regional problems and solutions. There was an emphasis on discussion of issues and recommendations for resolution. Delegates visited the Somes Island quarantine facility.

The Australasian region of the CVA includes Malaysia, Singapore, Hong Kong, Australia, New Zealand, Fiji, Papua New Guinea, Western Samoa, Vanuatu, Solomon Islands, Kiribati and Tonga.

Representatives of each of the Commonwealth countries in the region attended. Other veterinarians attending represented the South Pacific Commission. USA and FAO

Key recommendations were that member countries:

- facilitate trade in livestock and live stock products through the adopting of mutually agreed qualitative and/or quantitive risk analysis:
- m endorse the GATT recommendation that in livestock trade issues, differential consideration be given to developing countries;
- menhance their capability to generate information on animal health status from passive and active surveillance systems based on clearly identified purposes and targeted need for data:
- enhance international disease reporting through adoption of Handi STATUS:

- gain access to international electronic data networking facilities:
- standardise and adopt appropriate diagnostic tests with due consideration for OIE/FAO/WHO recommended procedures:
- seek assistance from potential donors to arrangetraining programmes to improve guarantine management, disease reporting and risk analysis; recommend the adoption of a regional animal
 - health code for Pacific Islands to provide for minimum standards for the importation of livestock products into the region;
- recommend the adoption of minimum standards for meat hygiene and processing and for disease surveillance:
- recommend establishment of an office to co-ordinate disease reporting and information exchange systems between Pacific Islands in the
- recommend that the CVA supports the need for regular meetings of heads of veterinary services in the region.



Guinea; Mike Nicols, Vanuatu; David Banks, Australia; Bill Pryor, Australia. Front row : John Bowskill, Tonga; Bryony Jones, Kiribati; Syed Jalaludin, Malaysia; Ken Lameta, Western Samoa; Derek Timbs, New Zealand.

Director of Eurogroup for Animal Welfare Visits New Zealand

Mr. David Wilkins, the new director of Eurogroup for Animal Welfare, visited New Zealand recently as a keynote speaker for the RNZSPCA Jubilee Conference. David's visit was supported financially by NZVA, ANZCCART and MAF.

Mr. David, who is a former Chief Veterinary Officer of the RSPCA in UK, would like to see veterinarians taking a stronger lead in animal welfare issues. For progress to be made in animal welfare, Mr. David believes the lay person's ideology needs to be combined with the expertise of the veterinarian. In Northern Europe there is a move within the veterinary profession to restore the principle of putting the animal's interests first, and the commercial interests of the client second. This move has been largely stimulated by the public awareness and concern about animal velocities in the control of the client second. This move has been largely stimulated by the public awareness and concern about animal velocities in the control of the client second.

- Vetscript Sep. 1993

Reading Is Sometimes An Ingenious Device For Avoiding Thought.

- Arthur Helps (1813-75)

The Eurogroup for Animal Welfare was established in 1980, as a result of a campaign led by the RSPCA. The organisation is based in Brussels, and has close links with the European Community and the Council of Europe.

The Eurogroup's mission is to identify areas of concern in the treatment of animals, and lobby for the introduction and enforcement of legislation in the European Community.

Eurogroup acts as a two-way channel of communication between animal welfare organisations in the EC, on the one hand, and the institutions of the EC and the Council of Europe, on the other. It also has links with animal welfare organisations outside the EC.

David Wilkins represents the Eurogroup on the Council of Europe Standing Committee on the Protection of Animals Kept for Farming Purposes. Dr Barry O'Neil, New Zealand's Veterinary Counsellor in Brussels, attends these meetings as an observer.

Meet The People Behind The Voices At Vet House

The faces behind the publication of Vet. House are:

In the front row are secretary Vivienne da Silva (left) and manager Iona Miglietta (right). Behind them are financial manager Linda Nel (left) and VetNews editor kim Trollio (right).

Ecotourism Now 'The Buzzword,'

Ecotourism which combines sightseeing with conservation has now become 'the buzzword,' giving developing nations an opportunity to exploit their natural resources for tourism without damaging the environment

> - Commonwealth Feature Nov. 1993



Mr. Hilly New PM of Solomon Islands



A family businessman and former Deputy Prime Minister of Solomon Islands has become its new Prime Minister.

The Hon Francis Billy Hilly (left), from Ranonga and Simbo in the Western Province, has also served as Minister for Health and

as Minister for Health and Medical Services. He holds a Bachelor of Arts degree in Administration and is leader of the Independent Group. He was born in 1948 and was first elected to Parliament in 1976.

New Deputy Chancellor of Univ. Queensland

With his wealth of experience outside as well as inside Universities, new Deputy Chancellor Dr Graham Alexander, AO, sees and believes first in the benefits of active graduates associations and networks.

After 43 years with the State's Department of Primary Industries, culminating in nine years as it control tor-general, and extensive involvement as a University Senator and faculty board member, he has helped not close links between the University and the Government department. The retailonship bore rich fruit recently the involvement of both in two co-operative research centres established in Queensland in Queen State.

Dr. Alexander graduated in veterinary science from the University of Queenstand in 1950, obtained his PhD from Oregon State University in 1959 and served on the University of Queenstand's Agriculture and Veterinary Science Faculty Boards, as well as on the Council of the University College/University of Southern Queenstand.

He was elected the University's 13th Deputy Chancellor in February, succeeding Mr Ivor Cribb, AM, who had served in the role since 1985.

Now manager of his own agricultural research and consultancy company, Dr Alexander believes the informal as well as the formal networks built between universities and industry are vitally important - hence his enthusiasm for graduate associations and networks.

He cites the case of students from Asia, who study at the University of Queensland and then return home, as a positive example.

"One of the important things about this is the link it provides with Asia - there are many graduates of this

Vet School Now Horsehold Name

THE ODD name Vet School is becoming a familiar one in the show and campdrafting circuits, showcases of the Australian Stock Horse.

Vet School Polly, Vet School Gemstone, Vet School Mutiny, Vet School Fidget are all prominent in the tight competition for perfection in the working horse. And they are all named after their alma mater, the Equine Unit at The University of Queensland's School of Veterinary Science.

Researchers Bruce Wilson, Dr Kerry Dowsett, Jack Groenedyk and Andrew Tribe at the Equine Unit at Pinjarra Hills, Brisbane, are continuing a 15-year project aimed at making the Unit one of the foremost Australian Stock Horse studie in Australia. They have made extraordinary strides, especially in the past year.

Legalisation of artificial insemination by the Australian Stock Horse Society in Expetember 1993 has meant semen from some of the best stock-horse sires in the country is now available to the Unit without the difficulties, risks, and costs involved in transporting stallions.

Show and working qualities, however, are not the sole aims of this saademic stuft. Its 30 mars ab the sole aims of this saademic stuft. Its 30 mars ab just at the Unit, have been selectively bred for ease of handling, specially for undergraduate postgraduate work. Stud manager fix Wilson said that, although annual sale of stud animals made breeding project commercially viable, the Unit considered its first priority was students.

"Many of our first-year students have never been involved with horses, so our horses have to be extremely quiet and very trainable," he said.

"There must be as little danger involved with the handling of the animals as possible.



University there and they are very proud of their association with the University," he said,

"The collaboration also produces great cross-cultural links, and of course, a better understanding of our Asian neighbours.

"Many people quite senior in those governments have studied here. These are strong, positive links."

Contact 1993

New Zealand Veterinary Association's Annual Conference

The 1993 NZVA Conference in Taupo was officially opened by Peg Loague, President of the RNZSPCA.

In her opening speech Mrs Loague commented on the wide range of special interest groups within the association and put out the challenge for interested members to form a poutly branch. This year the RNZSPCA is concentrating on intensive farming, and finding there is not a lot known about the conditions, health and welfare of poultry, she would like to have veterinary support for the campaign for improved conditions in eap production.

The relationship between veterinarians and local branches of the SPCA was another topic that Mrs Loague discussed. She acknowledged that whereas in some places the relationship was excellent, in others it falls down. While not apportioning blame, she made the point that if the approach by both parties is courteous, conscientious and considerate, the working relationship is almost invariably harmonious and astiskivino.

'Over more recent years, a strong bond has developed between the New Zealand Veterinary Association and the Royal New Zealand SPCA. This can only augur well for the members of both organisations,' said Mrs Loague.

She explained how members of the executives of both organisations are getting together to hold informal meetings whenever the opportunity arises without incurring added travelling costs.



'We are all in this business

of animal welfare and as supposed allies, should surely be keeping abreast with each other in our efforts and endeavours, encouraging, guiding, explaining and generally helping. There are so many things on which believe there is a need for close liaison and planning, matters on which co-operation between our two organisations would provide a much greater impact to those who need to listen."

'Communication has got to be one of the most important words in the English language, and it is only by planning together and communicating well that we can feel the assurance of support and guidance in our endeavours, whoever is initiating the particular project.'

President's address

on his speech at the 1993 conference, NZVA President Jim Edwards talked of his pride in being a member of the veterinary profession. He acknowledged the profound changes undergone and the battles that are being fought to maintain control of traditional areas of responsibility. He talked

of the recent battles that vets have had to fight and urged vets to see themselves as tall poppies in our society. Battles for control of drugs have affected the rural sector, but urban veterinary practices have also come under pressure.

"Looking at the current fees for comparable procedures in the veterinary and medical fields, why do we sell ourselves so short?" he asked. "We maintain significant facilities with high cost structures for which there is no subsidisation."

Another issue he referred to in his speech was the Veterinarians Bill, which has finally come before parliament. 'We are pleased with the Bill because it sets very high standards for a person to become and remain registered as a veterinarian. The Bill also introduces the legalisation of the registration of veterinary specialists.' Mr. Edwards believes that this change will benefit both veterinarians and the public However, whereas the Bill demands a high standard of education as a prerequisite for registration, ongoing funding cuts are restricting access to veterinary education to students who have wealthy parents or who are prepared to become heavily in debt. 'Where is the nation's investment in future excellence?' he

asks.

- Vetscript Oct '93

CVA REGIONAL NEWS

Canada Caribbean

New Prime Minister of Belize



Belizeans have elected a new Prime Minister after a narrow election win on 30 June.

Esquivel, a 53-year-old businessman who served as Belize's second post-independence Prime Minister from 1984 to 1989.

When Mr Esquivel was first elected in 1984, he was also one of the youngest Prime Minister in the Commonwealth.

He replaces George Price who has been



Director of Commonwealth Foundation

Dr. Humayun Khan, Director of Commonwealth Foundation, visited Jamaica on August 3, 1993 on his way to a regional Non Government Organization (No. G.) Forum in Guyana. In a meeting with him the C. V.A. Regional Representative Dr. Keith Amiel Gassacest the need to continue funding professional associations as a way of stabilizing the technical and professional resources available to Commonwealth developing countries. He pointed out that this was essential to achieve meaningful sustainable economic growth. The Commonwealth Foundation currently assists some thirty (30) Commonwealth professional associations and nineteen (19) professional centers.

Left to right: Mrs. Jacqueline DaCosta, President, Professional Societies Association of Jamaica, Dr. Humayun Khan, Director of the Commonwealth Foundation and Dr. Keith Amiel, Regional Representative, Canada and the Caribbean of the Commonwealth Veterinary Association.



Left to right: Dr. Keith Amiel, Regional Representative, Canada and the Caribbean of the Commonwealth Veterinary Association, Colonel M. Nunes, C.D., Chairman of Jamalea Branch of the Royal Commonwealth Society and Dr. Humayun Khan, Director of Commonwealth Equidation.

CIDA Linkage Between University Of Prince Edward

The University of Prince Edward Island (UPEI) and the Atlantic Veterinary College (AVC) have received funding from the Canadian International Development Agency (CIDA) to conduct on international co-operation project in Mexico. The five-year project, which is expected to cost over one million dollars is the largest project undertaken by the university. The primary objective will be to assist the Faculty of Veterinary Medicine at the University of Tamaulipas to improve the quality of education, upgrade diagnostic services, and enhance the delivery of veterinary services to rural communities in the state of Tamaulipas in Northeastern Mexico.

The CIDA project will mainly consist of training faculty and students from the University of Tamaulipas at the Atlantic Veterinary College. Ten faculty members will come to UPEI for six months of hands-on training in ambulatory clinics, fish diseases, and veterinary diagnostics. Also, five junior faculty, or prospective faculty, from the Mexican University will enrol in the graduate program at UPEI to study laboratory diagnostic techniques and herd health programs for practical use in Mexican agriculture.

The Fish Health Unit at AVC will be utilized to train Mexican professionals on all types of shellfish and fin fish. Training in agricultural areas not available at UPEI will be conducted at other Canadian Universities.



From left to right: Dr. Sergio Garza, Dean of the Faculty of Veterinary Medicine, University of Tamaulipas (UAT) in Mexico; Dr. Andres Snydelaar, Co-ordinator of Research, UAT; Dr. Julio Martinez, Head of Diagnostic Services, UAT; Dr. Heider, Dean of the Atlantic Veterinary College, UPE; and, Dr. Alfonso Lopez,

UPEI-UAT CIDA Project Director.

To ensure that the programs are suitable for use suitable for use the village level, brigades of Mexican senior veterinary students, a faculty supervisor and, when possible, a member of the Canadian team will visit small villages on a regular basis. They deducation, extension, practical demonstrations, and technical support in animal health.

Dr. Alfonso Lopez of the Atlantic Veterinary College is acting as the project director. He feels that this program will not only provide great cultural benefits, but will also allow for Atlantic Canadian technology. equipment, and products to be promoted to the rapidly growing agricultural and aquaculture industries in Mexico. Dr. Lonez says, "At the present time these industries (in Mexico) use primarily American and European suppliers. These are growing industries and the trade opportunities for Atlantic Canadian suppliers are immense. The private sector has already shown interest

in this project as a vehicle to promote Canadian exports."

Dr. Lopez is hoping to have two faculty members from the University of Tamualipas begin training this fall. The first graduate student is expected to arrive in early 1994.

- Can Vet J 34, 1993

Raccoon Rabies Moving Towards Canada

harles MacInnes, coordinator of national rabies research at the Ontario Ministry of Natural Besources, warns that raccoons intected with the rabies virus have been found about 50 km from the Ontario/United States border. As of yet, no cases of raccoon rabies have been reported in Ontario. Mr. MacInnes explained that this particular strain of rabies, which first appeared in Virginia in 1979. has been moving in northward at a steady pace. He warns that if this strain were to invade the Ontario population of raccoons, it could have a big impact. He says. "It could double or more than double the rabies cases in Ontario; therefore, it would more than double human exposure to rabies." In the past, the Ministry has tired to hat rabies in foxes by using an oral vaccine in bait dropped from planes, but , unfortunately, this vaccine will not work in raccoons. The Ministry is currently working on a more reliable vaccine, but Mr. Maclines speculates that it will be at the manner of the more than the properties of the more than the m

New Canadian Cooperative

Wildlife Health Centre Established

A new partnership has been forged that will bring reterinary medical science and wildlife biology together to address issues of wild animal health and disease in Canada for the first time on a national scale. The Canadian Cooperative Wildlife Health Centre (CCWHC) has been established to provide a wide range of wildlife services across the country. The head office is located at the Western College of Veterinary Medicine in Saskaton.

The centre has been established through cooperation agreements among the lour veterinary colleges and Environment Canada, all 12 provincial and territorial governments, and two private organizations: the Max Bell Foundation of Tornto and the Canadian Wildlife Federation of Ontario. The veterinary colleges will provide the physical environment for the centre, including specialized laboratories.

Faculty members who are specialists in wildlife health will be the centre's main professional personnel.

A board of directors consisting of representatives from the sponsoring organizations and the veterinary colleges will govern the centre. The two co-directors of the newly formed CCWHC are Dr. Ted Leighton and Dr. Gary Wobeser, both of the Western College of Veterinary Medicine.

The purpose of the centre is outlined as follows:

To help increase knowledge about diseases occurring in Canadian wildlife, including diseases caused by environmental pollutants, which will then be used to improve wildlife conservation and management;

- To provide veterinary expertise needed for identification, investigation, and surveillance of disease problems;
- To work closely with wildlife biologists and managers, and with the public;
- To provide technical information regarding wildlife health and disease to government and nongovernment organizations;
- To establish a national computerized repository of wildlife health information, with input from a wide range of sources, and to provide regular analysis of this information;
- To undertake public education through presentations, short courses, and publication; and
 To facilitate Canada's interaction with its American
- to facilitate Canada's interaction with its American counterpart organization, the National Wildlife.

 Can Vet J 34, April 1993

Ontario Veterinary College Opens New Lifetime Learning Centre

It didn't matter that the sun failed to shine on Saturday, June 19, 1993, for the official opening of the Ontario Veterinary College's (OVC) Lifetime Learning Centre, as friends, associates, faculty, staff, and students gathered in the centre's targest lecture theatre.

The ceremony inside began as pathology Chairman, Dr. Dean Percy, Johny the baggiopies, id Chancellor of the University of Guelph, Dr. Lincoln Alexander, and Dean of the Ontaro Veterinary College, Dr. Gle Mislean, down the long asile to the front of the amphitheatre. Some of the others in the long processor included: Professor Emertic, Italif A.B. Barker and Donald A. Barnum; President of the Ontario Veterinary College Alumni Association, Dr. Branda Bonnett, Assistant Dean of the Ontario Veterinary College, Dr. Ron Downey, Registrar of the College of Veterinarias, Dr. Jim Memy, Assistant Growth, William (St. Branda, Chairman, Cha

The opening ceremony, timed to coincide with the University of Guelph's Alumni Weekend, marked the opening of Phase I of the centre. Speaking at the opening, Dr. Nielsen said the centre "demonstrates the university's and OVC's commitment to teaching and learning not only to students, but also to practitioners.

- Can Vet J 34, April 1993

Men's Natures are alike; it is their habits that carry them apart. - Confucius

ASTVM Meets in Guadeloupe

The American Society of Tropical Veterinary
Medicine held its biennial meeting in
Guadeloupe, February 2-6, 1993. The topic of
the week-long conference was ticks and tick-borne
diseases. Participants were brought together from
many disciplines, institutions, and countries to
discuss avenues of research and methods of

control

Under the general sessions, papers were presented on a wide range of subjects relevant to tropical veterinary medicine. These included discussions of the historical perspective, results of veys, applications of risk assessment, use of computer modelling, evaluation of diagnostic test, the efficacy of treatment and vaccination, and research assects of molecular history.

Three specialized sessions were also held. These dealt with aspects of research and control or cowdriosis, dermatophilosis, and their vector the Amblyomma variegatum tick.

The gathering was used to advantage to update Caribbean participants on the status of the proposed FAO Ambyorma variegatum eraclication project, as presented by Tis. P. McCosker and G. Garris. The French islands of Guadeloupe and Martinique are presently seeking a 50% funding contribution from the EEC. Further discussions are underway, under the unbrilled in the FAO, to secure the funds and agreements necessary to deliver the program to the rest of the Caribbean

Results of the survey for ficks and serological evidence of heatwarter were presented by researchers from the CIRAD-EMVT lab in Quadeloupe in a separate meeting. Sea from about 1% of the runninants on each island was tested using an indirect ELISA. These results indicate that several islands are definitely infected with the tick, but only Quadeloupe and Antique have concurrent serological evidence of heartwater. The status of Martinique and Monterart is unclear: The low per-centage of positive seria and the absence of clinical access in the other islands storagely suggest that of mon-specific from selections are probably a companion from selections.

- Wayne Lees, Editor, CARPHIN News The pursuit of perfection, then, is the

pursuit of sweetness and light.... He who works for sweetness and light united, works to make reason and the will of God prevall.

- Mathew Arnold (1822 - 1888)

	% Animals Seropositive	Tick Distribution	Heartwate Present
Antiqua	25.0	Widespread	
Barbados	3.5	Very limited	A Charles
Dominica	1.7	Very limited	A STATE OF
Grenada	2.9	Not reported	
Guadeloupe	30.0	Widespread	+
Martinique	7.0	Limited	?
Montserrat	3.8	Very limited	?
St. Kitts & Nev	is 1.3	Widespread	
St. Lucia	1.5	Very limited	Barrie Va
St. Martin	2.2	Limited	

EMVT Heartwater Survey

Regional Educational Programme For Animal

Unconfirmed report

1 5

St. Vincent

Repair is located near Georgetown in Guyara and, as, of project of CARIOON, it is mentated to train middle-level personnel to augment the shortage of veterinarians in the Caribbean. Students are recruited for a two-year post Of-level diploma course covering all aspects of animal diseases and health, veterinary public health and namial husbandry. There is, in addition, some exposure to agricultural economies, marketing and co-operatives, and extension methods. In order to emphasize the importance of practical training, two days per week during the second and third term of the final year, are devoted to Field Training Cycle to cover veterinary pools health, and arobitately terrificher health, absorative practice and to conduct and successfully complete, undergraduate studies in veterinary medicine or animal science.

Since its inception in 1975, REPAHA has turned out close to 580 graduates who have been readily absorbed into the public and private sectors. Some of the graduates have assumed administrative and managenal responsibilities, for instance, as administrative and managenal responsibilities, for instance, as planning and implementation of livestock projects. Consequently, since 1991/12, the training programme has been responded and streamlined to expose trainees to management and financial solls and practices required for efficient utilization of resources. The school also conducts 2-5 week short-term courses to administrative training to the conduct of the conductive training to the conduct of the conductive training to the conductive training
The school enjoys excellent working relations and support from external agencies, notably CPTC, CTAP, PAHO, UNDP, CARDI, IICA and the continuing Education Programme in Agricultural Technology (CEPAT) of UMI. Several of the agencies sponsor staff, students and the short-courses. There are plans to transform REPAHA into a full-fledged Livestock Management Training Centre within the Faculty of Agriculture, University of the West Indies. Further Information may be obtained from the Principal, REPAHA, P.O. Box 10962, Georgetown Guyanna.

CVA REGIONAL NEWS

East, Central & Southern Africa

Veterinary Involvement in Wildlife Management in Namibia

- by Richard Haworth, U.K.

The purpose of my visit was to investigate the broad role of the veterinary surgeon in the management and care of the wildlife resources in Namibia.

This was achieved by spending four weeks during September, 1992, working at the Ecological Institute, in the Etosha National Park and one week working alongside a state veterinary surgeon in Gobasis, a tarming district in the eastern part of the country.

The Etosha National Park (ENP) remains one of the greatest and most important game parks in Africa (see Fig. 1). The park is Namibia's primary international tourist attraction, largely as a result of its wide variety of plains, animals including five conspicuous endangered species (black rhino, Hartmann's zebra, elephant, black-faced impala and cheetah). The Etosha Ecological Institute is part of the Ministry of Wildlife, Conservation and Tourism, and its staff carry out important monitoring and research in the park. A veterinary surgeon and technician are usually employed and based at the Institute. In addition, visiting scientists work alongside permanent staff in fields ranging from behavioural ecology to meteorology

The veterinary care of the national cattle herd and small ruminants falls under the Directorate of Veteri-



FIG. 1. THE FIRST HATCHAY PARK RETHAUS ONE ME THE MOST HATCHANT GAME PARKS IN APRICA.

FIG.1. The Etosha National Park Remains One Of The Most important Game Parks in Africa

nary services (hereafter referred to as the state veterinary service), in the Ministry of Agriculture, Fisheries, Water and Rivarl Development, Agriculture is the main employer in the country, supporting directly and indirectly, about 70% of the population (Vet. Services, 1992). However this at a subsistence level for most of the armers, Although beef, mutan dopat meat make up the vast majority of livestock production, the export of viewstock production, the export of

game carcasses represents a significant, if somewhat variable, source of revenue. The demand for game venison in Europe and S. Africa fluctuates widely, affecting the number of game harvested annually. The responsibility for meat inspection of game carcasses lies with Directorate of Veterinary Services.

In the following sections I will discuss the role of the Vet in wildlife management, firstly within the National Park system, and then with reference to the private game farms in Namibia.

Veterinary work in the Etosha National Park

The veterinary work carried out at ENP can be divided into four main areas

- i) monitoring
- ii) research
- iii) animal immobilisation and
- translocation iv) prophylaxis
- i) Monitoring

The monitoring of population size, mortality and condition score plays a very important part in wildlife management. For example, ecologists and veterinarians can often work together to determine factors influencing reproductive success, such as pasture quality or rates of predation

It is in the impact of disease on animal populations that the special skills of the veterinarian are invaluable: As Young (1969) has noted, the tendency in wild animal species to manifest few identifiable signs of disease, the rapid deterioration of game animals infected by certain pathogens, and the efficient detection and removal of carcasses by scavengers have led to the impression that wild game populations are not frequently decimated by disease. However infectious diseases can play a very important role in the regulation of game oppulation levels. For this reason whenever animal carcasses are detected in ENP they are examined at post mortem. At this stage gross abnormalities are noted and tissue samples are collected for histopathological exam. Gastro intestinal contents can be examined for evidence of parasitism and body fat stores can be evaluated to give a more accurate condition score. All this information is vital when studies are initiated to investigate causes of mortality in particular species. The Central Veterinary laboratory (CVL) situated in Windhoek, which forms part of the state veterinary service, performs diagnostic tests and prepares specimens for histopathology.

A good example of veterinary monitoring involving both the Ecological Institute and the CVL, is the approach to suspect rabies cases. The black-backed jackal is the most commonly affected carnivore and is widely distributed, both within and outside the ENP. This species presents the major risk of transmission to domestic stock and also acts as a reservoir of infection. For safety reasons, any iackal that is close to one of the tourist camps and behaving abnormally is euthanased and brain tissue submitted for IFA analysis at the CVL. A very high proportion of those submitted are diagnosed as positive for rables. Of interest is the recent discovery that under certain conditions this disease can also be transmitted horizontally between kudu through contact with saliva (personal communication, Dr. Depner).

Monitoring of game nortally is carried out in a number of different ways. As out in a number of different ways. As out in a number of different ways. As out in the park set densitied, recorded and if possible checked for antires intection in addition institute staff annually collect animab bones burn's intection is different with the staff annually collect animab bones found in small sample areas of the park. These bones are identified as far as is possible by the vaterinary surgeon according to species and age class. This annual collection provides an indirect index of game mortality within the study area.

ii) Research

The Institute staff carry out an impressive and varied research programme. Here only a single example will be discussed. One of the more active velerinary projects has been the work carried out on anthrax, which is enzoonic in the park. This disease was recorded in the park. This disease was recorded in the park area searly as 1379 and more recently was thought to be responsible for an estimated 54% of the total recorded

mortality (Ebedes, 1976). Anthrax has been diagnosed at ENP in plains zebra, blue wildebeest, springbok, elephant, gemsbok, kudu, ostrich, giraffe, eland cheetah.

This disease constitutes a major problem not only because of undesired mortalities but also because of pressures that monitoring the disease, disposal of carcasses and other control measures place on limited staffing resources (Turnbull et. al., 1986). Early research into the natural history of anthrax focussed on establishing links between environmental factors and geographical differences in incidence (Ebedes, 1986, Berry, 1981). However recent work has failed to identify an "environmental reservoir" for Bacillus anthracis and has isolated the bacterium only from animal specimens or environmental samples associated with anthrax carcasses (Turnbull et. al. 1989). Contrary to earlier theories. water holes do not appear to be sites. of spore germination and multiplication.

Another fascinating area recently explored has been a searological survey of wildfile in ENP. which showed that naturally acquired anthrax specific antibodies are rare in herbivores but common in carrivores. Indeed, carnivore titres appear to reflect the prevaitance of anthrax in their range. (Turrbull et al., 1992). This work (Turbull et al., 1992). The relevant to any plans for more widespread use of anthrax in relevant to any plans for more widespread use of anthrax vaccine in the park.

iii) Immobilisation and Translocation

In wildlife management and research there are many indications for animal immobilisation. For example in order to safeguard the future of rare and endangered species, individuals are often captured and translocated to national parks or private game farms. Although some techniques of capture, for example the boma method (Hofmey, 1975).

do not require complete immobilisation, sedation may often reduce capture stress.

Studies in behavioural ecology requently require radiocollars to be placed on mammals to facilitate tracking. The veterinary surgeon become involved because such collars need to be placed under chemical restraint. In addition the collection of blood or other samples from wild animals surally requires immobilisation.

The development of anaesthetic technique for use of wild animals has taken place in game parks and zoological collections around the world, and has been to a large extent empirical. The Vets at ENP have made, and continue to make, valuable contributions in this area. For example, springbok (Antidorcus marsupialis) are known to be one of the most difficult African unqulates to capture successfully in large numbers, with mortality rates of 10% and more not unknown. Hofmeyr et al. (1976) utilized an intramuscular injection of haloperidol (0.25 mg/kg) after "drop net" capture of springbok. to reduce the effects of stress and delay the alarm reaction. Overall loss resulting from capture, handling and transportation was reduced to 3.5% in this study.

iv Prophylaxis

Sick animals are seldom treated within the national parks because of the impractibility of locating and treating affected individually and treating affected individuals; and treating affected individuals; and treating affected individuals; and treating
- adapted elephant population in the west of the country. Although little is known of the efficacy of vaccination in this species, any potential benefit was considered worthwhile in this vulnerable population. The vaccination was carried out by helicopter using an

encapsulated ballistic vaccine (WWF sponsored).

Another situation where prophylaxis is possible occurs when it is planned to release endangered or rare animals into the park. During my visit to ENP a litter of seven Cape Hunting dog (Lycaon pictus) puppies. orphaned as a result of their mother being shot outside the park, were being raised in a small enclosure inside the park (Fig. 2). This species suffers from widespread persecution by farmers. As a result its range has been dramatically reduced and the species is now on the endangered list. Each hunting pack roams over a large area and historically wild dogs were sighted in ENP. Currently there is no pack which is either resident, or husbandry and of reintroduction of this species.

The Development of Private Game Farms

in Namibia there are an increasing number of investoria farmers who are looking to diversity and seek alternative land uses. Most of the commercial farms are large (e.75.500 hectares), but can be stocked only at a low density (e.g. 30 hectares per cow). A very low arrialal (102-250 mm/y) results in ow producivity of uniformational market for certain agricultural products, for example karvalu geles, appears to be in decline at present. This places further economic stress on farmers, par



FIG 2. Cape Hunting Dogs Being Reared At Okaukvejo, E.N.P.

makes excursions into the park. Therefore it is hoped that if suitable adults can be found who can teach the juveniles hunting skills and produce a viable sized pack, they may be reintroduced into the park.

In order to protect the pups they were vaccinated against canine distemper, parvoirus and adenovirus infection (Fig.3). Later it is planned to vaccinate them against rabies. If the pups are successfully fostered to adult dogs and released, this will represent a major success in terms of ticularly in the drier areas in the south of the country.

Does the conversion to game farms offer a viable alternative?

The answer appears to be that this may be a solution for a small number of farms. Although the majority of these extensive farms contain some game, especially springbok and kudu, they are not confined by the normal stock fences. Under these conditions the resident game population cannot be considered to be



FIG 3. The Wild Dog Pups Were Weighed

managed and may not sustain regular harvesting. In order to confine the major antelope species a 2 metre high game fence is required. The installation of such a fence around the perimeter of a large farm is an expensive capital outlay and early on in the plans the farmer needs to consider what sector of the wildfile market he wishes to attract:

a) trophy hunting

b) game harvesting for meat c) tourists wishing to observe or photograph wildlife

Clearly these are not mutually exclusive and a combination of interests is possible. For example troph funters will expose the committee of th

rent health concerns may boost this product, as venison is considered a low fat alternative to traditional meats. It should be noted that the high health status of the commercial farms in Namibia allows importation of venison into the European Community.

Currently game meat currently remains a gourmet speciality outside of Southern Africa.

It seems certain that the tourist industry in Namibia is set to Nourish in the next few years. While IEPN will probably remain the country's centrepiece for attracting international tourists, it will also excluse source or would be considered to the country section of the country of the cou

Veterinary input to Game Farms

Veterinary work on game farms is mostly restricted to immobilisation and translocation of wildline. Much of the expentise in this area lies with staff of the Dept. of Nature Conservation and a few vets in private practice. They are able to advise game farmers on stocking rates, husbandry and "veld" (ossture) managenement.

Another role of the Dept. of Nature Conservation staff is to investigate mortalities of particular endangered species kept on private lands. During my visit we were called onto a farm to perform a post mortem on a black hino (Diceros bicornis) found dead on the wold. In the case of this critically thestened species posching is an important cause of mortality to rule out. A metal detector was used for this purpose to search for buller fragments in the canses (Fig.5). In this case no bullet was found and samples were taken to help rule of a catherone.



FIG 4. A Low Rainfall Results In Low Pasture Productivity



FIG.5. A Metal Detector Was Used To Search For Bullet fragments in this Black Rhino Carcass

The Dept. of Nature Conservation is also responsible for law enforcement where wildlife are kept on private lands. Thus it carries out inspections at farms on the utilisation of name, is responsible for the registration of hunting farms, and tests and registers both hunting guides and professional hunters. Staff often attend game capture operations and night culling operations for control reasons. Where game farms wish to export wildlife or wildlife products (e.g. ostrich eggs), a state vet, is required to inspect the health of the stock before issuing a certificate.

Conclusions

The recent political changes in Namibia have both reconfirmed the governments committenent to its wildlife resources, and also heightened international interest in this country as a lousif desiration. It seems likely therefore that both game farms and tourism in the National garks will fluorish in the next few years, thus making a significant combination to the national economy. The importance of widdle in this scheme ensures a central role for the veterinary surgeon.

For example, within the ENP the Vet. works as part of a multidisciplinary team. The special skills he brings range from a knowledge of anaeshteisk valle oberleiven and sale immobilisation, through to a background in pathology important for gaining maximal information from post morter vasams. This experter search and translocation programmes. In addition improved understanding of wildlife disease could result in more widespread use of vaccination in vulnerable populations.

The development of game farms ofters a visible alternative to traditional farming for an increasing number of farms. This industry can supply varied interests and is likely to develop in tandem with increased utilisation of the National Parks. Private and state vets will contribute during, for example, translocation for restocking, "veil" management and post mortern monitoring. The state Vet. also carries out statutory duties such as inspection of wildlife products before export.

There are Vets in Namibia with the experience necessary to fulfill the various roles discussed in this paper. It is hoped that the necessary funding and support for this developing wildlife economy, from both within and outside the country, will enable

their full impact on this industry to be realised.

Acknowledgements

I should like to thank the following people for their help and encouragement during my visit to Namibia: at the ENP, Mr. W. Versfeld, Dr.B. Fox, Dr. M. Lindeque, Dr. P. Lindeque and Dr. W. Gasaway. Enblirectorate of Veterinary Services, Dr. J. Shaw, Dr. C. Linchterburg and Dr. Deparer at the CVL.

Also I wish to thank the Harry Steele-Bodger Memorial Scholarship Committee for their help in funding this visit, and Ms. H. Cotton of the BVA for her helpful advice.

References

Berry, H.H. (1981). "Abnormal levels of disease and predation as limiting factors for wildebeest in ENP". Madoqua 12, 242-25

Directorate of Vet. Services (1992). "Veterinary Services in Namibla". Dept. of Nature Conservation (1988). "Annual Report".

nual Heport".

Ebedes, H. (1976). "Anthrax
epizootics in ENP". Madoqua 10, 99-118.

Hotmeyr, J.M. (1975). "The capture and care of eland Taurotrapus oryx

oryx using the boma method". Madoqua 9, 25-33.

Hofmeyr, J.M. et al., (1976). "Capture, handling and transport of springbuck and the application of haloperidol as a long actino neuroleptic". Madoqua 10, 123-

Turnbull P.C.B., et al., (1986). "Isolation of Bacillus anthracis the agent of anthrax, in the ENP". Madoqua 14, 321-

Turnbull P.C.B., et al., (1992). "Segology and anthrax in humans, livestock and ENP wildlife". Epidemiol. Infect. 108, 299-313.

Young, E. (1969). "The significance of Infectious Diseases in African Game populations". Zoologica Africana 4, 275-281.

Editor: Dr. Haworth is a graduate of Cambridge University with B. A. in Zool-ogy & Vet. MB, MRCVS. He did his internship in small animal medicine and surgery at the Univ. of Pennsylvania, USA. He received the Harry Stelle - Bodger Memorial Scholarship to undertake the above study. He is currently in Veterinary practice in the south of England.

News from Kenya

Kenya Veterinary Association Annual General Meeting and Scientific Seminar.

A two days' Annual Scientific Conference was held on 22nd - 23rd April, 1993. The theme was "Veterinary Education and Needs into 21st Century". This

- (i) the apparent loss of interest in Veterinary degree course by the University entrants due to uncertainity of employment in the Veterinary Department.
- (ii) the tendency by the University authorities to demean the Veterinary profession by lowering the academic enrolement requirement for the degree course.

(iii) the apparent overproduction of veterinary surgeons to an economy that could not gainfully exploit them.

theme was chosen for three main reasons:

New Office Bearers of Kenya Veterinary Association

The Annual General Meeting of the Kenya Veterinary Association was held on 23/4/93. The following were elected to the Executive Committee for the year 1993/94.

Chairman : Dr. I.G. Kahiu

Vice Chairman : Prof. E.R. Mitiga Senior

Vice Chairman : Dr. J.M.N. Kamau Secretary : Dr. W.O. Ogara

Assistant Secretary : Dr. J.M. Wright

Treasurer : Dr. K. Shamshudin

Committee : Dr. P. Rwambo, Members Dr. K. Moogori

Dr. J. Odhiambo, Dr. Elizabeth Waithanji

Dr. Elizabeth Waitnanji Dr. S. Munyua,

Dr. H.S.N. Kiniiva

The Kenya Women Veterinary Association has been formed and formally recognised as a fully fledged branch of the Kenya Veterinary Association.

The Kenya Veterinary Association hosted Dr. Leobnarg Khomari, the C.V.A. Regional Representative for East Central and Southern African from 9/12/92 to 12/12/92. She participated in an Executive Committee meeting where she appraised K.V.A. on several issues concerning the national association.

News from Tanzania

Dr. Sinare a private practioner from Dure Salasm.

The Tanzania visited U.K. in June 1980 to appraise himself to U.K. he also visited the Birth 1981 to praise himself to U.K. he also visited the Birth Veetrinary Association. Where he met the President of BVA Dr. Francis Anthory and Dr. J.T. Blackburn, Program Director CVA. How so presented with a copy of Dr. Lorne Stepheris book. Trypanosomissis: A Veterrany Perspective Disblook have been and are being distributed by the Overseas Group of the BVA.



L - R Mr. Alastair Porter (BVA Consultant), Dr Sinare (Tanzania Veterinary Association), Francis Anthony (President, BVA) and Dr. Blackburn (Program Director CVA)

News From Mauritius

Mauritius Veterinary Association - Executive Committee 1993-1994

At the Annual General Meeting of the Mauritius Veterinary Association held on the 31st August 1993, the following members of the executive committee were elected for 1993-94.

Chairman : Dr D. Sibarttie,

Secretary : Dr M.R. Jaumally
Tressurer : Dr V. Jusrut.

Treasurer : Dr V. Jusrut, Executive Members : Dr Y. Kurihashi &

Dr V.S. Jugessur

CVA Councillor : Dr M.R. Jaumally.

Estimating the Costs of Animal Trypanosomiasis in Africa

By collecting data from altes across Africa where hypanosomissis is endemie, then bubling computer models and egosparical information systems to analyse the date, scientisst at IRAD are making a raisonal and systematic appraisal of the economic cost of the important disease of domestic livestock. The results of this project migle decision makens a reliable continent wide pictures of the project and provided projects and the project of the project and project of the project of the project of the project of the project of project of the project of project of the project o

Direct losses caused by trypanosomiasis are due to the presence of the disease in livestock populations; they include production and reproduction losses resulting from mortality, morbidity and infertility and the costs of implementing and running trypanosomiasis control operations. Indirect losses are due to the risk of the disease; they include the exclusion of ruminant livestock production from tsetse-infested areas, reduced livestock production levels due to restricted grazing, and reduced crop production due to exclusion or limitation of draught power.

Three types of information are needed to quantify direct losses in given areas;

- (1) the livestock production system employed, including the breed, type and number of animals at risk from trypanosomiasis; the milk, meat, manure and draught output of the livestock; and the prices of the these livestock products;
- (2) the impact of trypanosomiasis, including estimates of the prevalence and incidence of infections and disease and their effect
- on key livestock production parameters, such as mortality, fertility, milk yield, and draught power; and

- (3) the degree of human population pressure for access to land, which influences the type and intensity of land use following successful trypanosomiasis control.
- This information is put into computer models to predict production based when deficient production between the deficient production between the deficient production between the deficient production between the deficient methods in different markets from the deficient methods in different methods in course for deficient production between the disposals. Production losses are estimated in terms of the value of decreased outputs of milic, direapit power, manue, head growth, and offtake or animal disposals.
- A large number of assumptions must be made for this type of model calculation, necessitating that the results be regarded as estimates only. Nevertheless, the results clearly indicate the orders of magnitude involved and the composition of the costs of trypanosomiasis in the countries studied. In this estimate, local market prices were used throughout.

The Gambia

The Gambia has high densities of human and livestock populations. Most Gambian cattle are N'Dama, a 'trypanotolerant' African breed, which is usually able to tolerate moderate challenge by trypanosome infection with no clinical ill effects. A study conducted by ILRAD and national scientists indicated that about 117,000 Gambian N'Dama cattle (37% of the national herd) are at risk from trypanosomiasis. The high level of draught power imply that indirect benefits from changes in grazing patterns or a shift towards draught power are unlikely if the disease incidence is reduced.

The cost of trypanosomiasis in The Gambia was calculated to be US\$5.6 million (based on the 1991 exchange rate of 1US\$ = 14.7 DI) over a period of 20 years, expressed in present value terms. This amounts to an average of \$279,000 per year or \$1.30 per head of cattle at risk. Virtually all the costs of the disease (99.9%) were attributed to production losses, with the remaining tiny component being the cost of about 1.000 chemotherapeutic treatments administered to livestock annually. The main production loss (42%) was in decreased milk yield. The other production losses were due to decreases in draught power (26%). herd growth (18%), offtake (10%) and manure (5%).

Zimbabwe

Unlike The Gambia and most countries in Africa, Zimbabwe has sharply demarcated land use zones. Farming areas are divided into large and small scale commercial areas and communal grazing areas; non-farming rural areas are divided into forest reserves, national parks and safari areas.

Trypanosomiasis is controlled mainly by controlling populations of the tsetse fly vector. These have been eradicated from a total of 46,000 sq. km, leaving only a small proportion of the country (20,000 to 25,000 sq. km) tsetse infested, within which human population densities are fairly low, unlike those in The Gambia.

The areas suitable for tsetse habitation extend from the Zambezi River on the northern border and from the eastern border well into the central highland plateau, where the commercial farming areas are located. It is estimated that, due to extensive testes control, only 4% of Zimbabwe's cattle population (in 1991, 241,000 of

a total of 6.1 million) are at risk annually from trypanosomiasis. (Following the 1991/92 drought, the cattle population is estimated to have fallen to 5.1 million). Most of these cattle are located in communal grazing areas in the north and northeast.

As in The Gambia, it is unlikely that improved control of trypanosomiasis will lead to major changes in land use in Zimbabwe because of the stric adherence already given to land use categories and the successful restriction of testes infestation mainly to non-farming border regions.

The success of tsetse control in Zimbabwe has reduced the in-cidence of trypanosomiasis to very low levels (about 800 clinical cases a year). The national costs of this control, on the other hand, are relatively high: the (undiscounted) 1991 expenditure of the Tsetse and Trypanosomiasis Control Branch of

the Department of Veterinary Senivices in Zimbabwe was US45 anilion (based on the exchange rate at the time of 1US\$ = 253.04). Testes control protects the interior of the country from reinfestation. In addition to employing insecticide-impressible testes targets, Zimbabwe uses deltamethrin cattle dips in some areas to maintain testes control and to reinforce the country's testes barriers.

ILRAD's study estimates the direct economic cost of trypanosomiasis in Zimbabwe, when discounted at 10% over 20 years, to be \$37 million, which is an average of \$31.8 million per year, or \$7.60 per head of catile at risk. (The undiscounted annual cost averages \$4.3 million at the 1991 exchange rate). Most of this is the cost of disease control (about 98%), of the direct cost of trypanosomiasis in Zimbabwe, 68% constitutes the cost of outfortions of the cost of controlling constitutes the cost of controlling controlling constitutes the cost of controlling controlli

tsetse populations with targets, 27% the cost of dipping and pour-on deltamethrin applications, and 3% the cost of treating infected cattle with trypanocides.

The remaining 2% of the cost of trypanosomiasis is due to production losses. Zimbabwe's minor production losses contrast markedly with those in The Gambia, where most of the disease costs are due to production losses. The most notable feature of the Zimbabwean production losses is the overwhelming importance of draught power, estimated to constitute 61% of the total, making this the dominant output of the country's communal (traditional) livestock production. This is followed by losses in milk vield (14%), herd growth (14%), manure (6%) and offtake (5%).

- ILRAD Rep April 1993-

Tea, Apples And Onions Are Good For The Heart

The old, proverb, an apple a day keeps the doctor away, takes on a new meaning, if the results of a new study, published in The Lancet this week, are anything to go by. And tea and onions should be included too.

All of these toodstuffs contain a group of natural chemicals called flavonoids. And according to Dutch researchers, the higher your flavonoid intake the lower is the risk of death from coronary heard disease (CHD) and of a first myocradial infarction (heart attack), fatal or non-fatal.

Leading a team of food specialists, Dr Michael Hertog from the National Institute of Public Health and Environmental Protection in Bilthoven, measured the flavonoid content of 28 types of vegetable, 12 types of fruit and nine beverages that are commonly consumed in the Netherlands.

Using this information, they assessed the amount of flavonoids in the usual diet of 80 selderly Duch men (65-64 years). First, each man was carefully questioned about his diet for an how by a trained diethian, and this interview included the person who prepared his food (usually his well, With this knowledge, the investigators then calculated the amount of flavonoids in the diets of these men. The next step was to assess the effect that this intake had on number of cases and deaths from CHID. The men were an ideal group to study because they are part of

the Zutpher Elderly Study, a long-term project that was set up in 1960 to assess the risk factors for all chronic diseases in elderly men.

Protection against heart attack: Dr. Hertogs team found that tea (Indian varieties) accounted for 61% of flavonoid intake, with onions (13%) and apples (10%) in second and third places, respectively. The protective effect of flavonoids against cardiac events was impressive -men who had a high overall flavonoid intake were 65%, less likely to die and 48% less likely to have their first heart attack.

Tea drinking and consumption of onlons and apples were protective. Men who drank more than four cups of tea a day (about 500 millilitres) benefited most. Their risk of death from CHD was half that of men who drank two cups or less.

Similarly, the benefit provided by apples was greater in men who ate one or more apples a day (110 gm, or hore) than in those eating one or less a week. Since these items had the highest flavonoid content, the resear

- The New York Time Syndicate.

CVA REGIONAL NEWS

West Africa

News from Ghana

The first Bi-Annual Newsletter of the Ghana Veterinary Medical Association has been published. It is an impressive bulletin with information on the activities of GVMA as news from different regions of the country. An editorial team comprising of Dr. E. B. M. Koney, K. G. Aning, T. Addal and L.K. King are responsible for this veterinary

Executive Members of the GVMA

· Dr W Amanfu

Dr. E.B.M. Koney

: Dr. B. Awumbila

Dr B Nutor

President

Secretary

B.A.R.

Vice President

Past President

	: Dr. L. Alorvor		
	Regional	Representatives	
G.A.R.	nworth as	Dr. G. Coleman	
E.R.	a bisonomic Lasti Penus	Dr. L.K. King	
V.R.	day prino	Dr. F.D. Folitse	
C.R.	published 1-11	Dr. F.K. Peterson	
W.R.	history)	Dr. K.O. Adomah	
A.R.	malenming-l	Dr. Osei Acheampo	
N.R.	an suntan	Dr. J. Tuekpe	
U.E.R.	plude	Dr. K.M. Aryee	
U.W.R.	100	Dr. A.E. Ghamli	

Vice Secretary : Dr. F. Toninga

It is not the ape, nor the tiger in man that I fear, It is the donkey

- William Temple (1881 - 1944)

Dr. J.W. Karimu

Faith may be defined briefly as an illogical belief in the occurrence of the improbable.

H. L. Mencken (1880-1956)

The Gambia Experience

Gillian Notton, V.N.

While on holiday in the Gambia recently Gillian Notton, Vn, made contact with the Gambian Veterinary Association, Its chairman, Dr. B.N. Touray, also President of the Commonwealth Veterinary Association, invited her to talk to some of the association's members about veterinary runsing in the UK.

In a country where attaining a high school qualification is a major achievement one must admire qualified professionals, To qualify as veterinary surgeons, students have to be nominated for scholarships which are made available by countries all over the world. There are only about 15 vets in the Cambia and its most well known is its about 15 vets in the Cambia and its most well known is the Commonwealth Veternary Association, who qualified at Edinburgh.

Veterinary assistants are equivalent to veterinary nurses and they may progress to being veterinary surgeons. Because there are so few vets, these assistants are relied on to go out into the field to educate the rural population about animal health matters.

The Gambia is a major study centre for the testes fly transmitted disease, trypanosomiasi (which causes is depending sickness in man) and during my stay Dr Touray mixted me to visit the International Trypanotolerance Centre (TIC). Control is totality dependent on a few trypanocidal druge that have been on the market for 40 years and drug resistance is a major problem. Attempts to control the vector have been successful in some areas but have had tittle impact on the remaining 11 million squares kilometres that are still intested. As the human population increases so does that of the cattle in turn providing in-creased breeding bottenfall or tastee for central for the cattle in turn providing in-

One approach to control has been the recognition that certain indigenous breeds of cattle, in particular the NDama, possess a degree of genetic resistance to trypanosomiasis; these animals can be productive even when infected. This traft has been termed trypanotoderant, however, trying to cross bread this tolerance into other more productive cattle such as the zebu has resulted in ser decided by a more than the productive cattle such as the zebu has resulted in set reduced by a most half and continued research is vital.

Dr. Camara, from the department of wildlife conservation, gave me a guided tour of the Abuko Nature Reserve. This jungle reserve in the middle of the Savanna has been protected since 1916. The path through the reserve is approximately three kilometres long and gives visitors a good idea of how the visitors at good idea of how the population and subscquent deforestation. Green and red Colobus monkeys lived free in large groups, alongside a member lized sauthering off into the undergrowth, and snakes were not uncommon. The crecodile pool was said to contain 200 specimens though a said to contain 200 specimens 200 specimens 200 specimens 200 specimens 200 specimens 200 specimens 200 spe

The reserve is also an orphrange and rehabilitation centre for chimpanarese. babbons and monkeys. The practice of killing primate mothers to get at their bables opes on all over Africa and many young are exported or kept as pets. In the Gambia there are no species of large primate left in the wild, but green contage are intercepted or confisicated and brought to Abuko for initial lostering and rehabilitation. Monkeys are released into the reserve once they are able to fend for themselves and baboons and chimpanzees are moved to the River Gambia national park. Thirty-five chimpanzees have already been rehabilitated and are living on a small complex of islands used exclusively for this project.

My thanks go to the members of the Gambia Veterinary Association. I hope this was the beginning of continued contact between our associations

Africanized Honey Bee (AHB)

The AHB was trapped in Fayette Country, Texas, for the first time, bringing the total number of infested Texas counties to 43 (Sept 29th).

On November 9th, APHIS reported that five more Texas counties have been placed under State quarantine, bringing the total to 50. In spite of the latest quarantines, a marked slow-down in the swarming of bees has been noticed because of the cooler weather.

On Novembre 10th, they announced that AHB are now in Pecos County making is the 51st country under quarantine (APHIS A.M. of Nov. 10th).

Source: NAPPO Newsletter, January

Africanized bees attack

Africanized bees attacked villagers in Trinidad recently, killing three dogs and injuring six people. One person was hospitalized as a result of the stings received.

Commonwealth Veterinary Association News Wishes All Its Readers A Very Happy And Prosperous New Year

NEW BOOKS

PROCINE REPRODUCTIVE AND RESPIRATORY SYNDROME

THE DISEASE: In 1991, a little known and mysterious health problem of pigs in North America came to the forefront of world attention when a darantic epidemic killed more than how million pigs across Europe in just a matter of months. In the two years since then, P.R.R.S. (also known as "BLUE EAR" disease) has become a widespread and persistent health problem of swine around the world. It is associated with infection by a previously unknown group of viruses, related to known viruses of horses and prinates. So far it has deleated all attempts to control its recentless spread and persistence.

PRICE .

£15 (US\$30) included packing & airmail postage if ordered from publishers. Please make cheque payable to "University of Cambridge".

AUTHOR:

Dr. Michael Mereditth, lecturer in Animal Breeding and Infertility in the Department of Clinical Veterinary Medicine and Director of the Pig Disease Information Centre, Cambridge University.

PUBLISHED BY :

The Pig Disease Information Centre, Cambridge.

International Veterinary Nurses And Technicians Association

The foundations for the first international Veterinary Nursing Congress were laid in Cotober 1991 during the world small animal congress in Vienna. Twenty five veterinary nurses, representing 11 countries, attended a round table meeting organised by the British veterinary nursing association. Its purpose was to provide a forum where nurses and veterinary settlement of the veterinary nursing association, such as the veterinary nursing association externational veterinary nursing organisation, settlement or the veterinary nursing organisation.

The British veterinary nursing association hold a successful annual congress and so we decided to link the 1st International congress up with the BVNA's 20th. At the same time hold the inaugural meeting of the IVNTA. Ms. Gillian Notion reports:

"My remit was to stir up international interest, from official veterinary nursing and technician bodies to interested parties from areas where the auxiliary profession is less organised.

It was not difficult, the enthusiasm has been overwhelming. The gross sike placer over 3 days, and 8.8 ks. placer 1993 with international speakers forming an 2 tier scientific programme, practical workshops and symposia attracting delegates world wide. Over one hundred exhibitors are already booked and upwards of nine hundred delegates are expected.

I was able to combine business with pleasure in June'93. I made contact with the Commonwealth Veterinary Associations' president Dr. B. Touray, and during a holiday to the Gambia he invited me to give an overview of the British veterinary nursing association to the Gambia veterinary association to the Gambia veterinary association.

Dr. Touray and his colleagues made me very welcome and were seconded to showing welcome and were seconded to showing where they worked. Dr. F. Sanyang presided over the tour of the International Trypanotolernace centre and Dr. Camara walked me through the Abuko nature reserve, home of the wildite preservation department.

Being purely a visitor to the Gambia on a number of occasions previously. I found the brief insight given to me very interesting and hopefully the beginnings of continued contact between our professions.

Further details on the International veterinary nurses and technicians association can be obtained from:

The British Veterinary Nursing Association, Unit D12 the Seedbed Centre, Coldharbour Rd, Harlow, Essex. CM19 5AF. UK

Scientists Hunt Down The Huntington's Gene

Nearly 10 years' research by British and US scientists has led to the isolation of the gene that causes-Huntington's Disease (HD), an inherited datal brain condition that affects about 100,000 people worldwide. The success will mean more accurate genetic testing for those at risk and is a major step towards the day when HD will be treatable.

The gene was finally pinpointed through a collaboration involving six teams. Dr Hans Lehrach, head of the UK Imperial Cancer Fund (ICRF) team, described the project as "a tremendous scientific detective story".

He explained: "The gene was the first one to be mapped to a chromosome where we had absolutely no clues where it might actually lie. We had to localise the gene to a small region of the chromosome containing some two million base pairs of chemical building blocks. We then had to find a

very small change, which turned out to involve fewer than 100 base pairs in this region."

The genetic change or mutation causing HD appears similar in all the patients studied so far, and is located in an unstable region of one end of a gene that is associated specifically with the development of the disease. The mutation is similar to the genetic change found recently in two other inherited socioders - the myotonic muscular dystrophy wasting disease and fragile X mental retardation.

Scientists believe the region of the chromosome containing the HD gene could also be the location of a gene associated with hairy cell leukaemia.

- Spectrum July - Aug 1993

CVA REGIONAL NEWS

U.K. Mediterranean

he work of veterinarians in developing countries was discussed during the BVA Congress in a session organised by the Association's Overseas Group. Mr Mike Teale (left), the Overseas Group's Chairman is shown with recent graduates Philip Thomas and Kate O' Sullivan, who discuss their work on a Voluntary Service Overseas project in north-western Cambodia, which had been supported by the Overseas Group. They have since returned to Cambodia and a report of their activities will be published in the The Veterinary Record at a later date. On the right is Mr. Archie Hunter, of the Centre for Tropical Veterinary Medicine in Edinburgh, who discussed the work of the charity VetAid in providing veterinary assistance to people who depend on animals for their survival in countries such as Afghanistan, India, Mozambique, the Sudan and Somalia.



L to R Mr. Mike Teale, Dr. Philip Thomas, Dr. Kate O' Sullivan, and Mr. Archie Hunter

BVA Overseas Travel Grants 1993

The BVA travel scholarship scheme, instituted in March 1983, makes available grants of about £400 to assist veterinary undergraduates to visit developing countries.

From the 16 applications received this year two grants of £400 have been awarded:

Andrea Wright, from Chesterfield, is a fourth year student at the University off Bristol Veterinary School. She will be visiting Uganda for eight weeks this summer to assist with the work of the "Send A Cow" charity in the Kampala region, as well as helping at the Artificial Breeding Centre in Entebbe.

Rachel Blair and Jacqueline Cardwell, from Glasgow and Llantwit Major (South Glamorgan) respectively, are both fifth year students at the University of Cambridge Veterinary School. They will be spending one month in India where they will participate in projects organised by the National Dairy Development Board.

In addition, the BVA is continuing its support of two young veterinary surgeons - Kate O'Sullivan and Philip Thomas - who are working in Cambodia as part of a Voluntary Service Overseas team.

All Monkey's are imperfect humans -Humans are only the perfect Monkeys

- Y.M.N. Murthy

British Veterinary Association, 111th Annual General Meeting, Edinburgh, September 22nd, 1993

 $\mathbf{T}_{\mathsf{BVA}}^{\mathsf{he}}$ following were elected as new officers of the

President, Mr Bob Young,
Past-President Mr. Francis Anthony,
Senior Vice-President Mr Paul DeVile,
Junior Vice-President Mr. Robert Stavenson

and Vice-President Mr Charles Frank.



Mr Robert Young, inducted as President of the BVA at the Association's annual general meeting on September 22, is very much a general practitioner. After graduating from Bristol in 1960 he worked as an assistant in predominantly

dairy practice in Shaftebury, Dorset. He then moved to Devon where he is now the senior partner at the Okeford Veterinary Centre, a four person mixed practice in Okehampton which encompasses a section of the Dartmoor National Park.

He believes that the Veterinary Profession is so small that it is vital that it speaks with one voice and that it is the function of the BNA correlate the views of its divisions and then to commonize the profession of the the vital that is the function of the BNA profession of the profession of the profession of the vital that is the vital that the profession's influence must be brought to bear on a rational and European scale and where it is essential to maintain a high profile with the public and opvernment alike. He also believes that in these days of rapid change the Association must strive to increase its service to members in terms of advice and assistance over a wide range of activities. This applies to practioner and non-practitioner alike.

Mr Young is a past-president of the Western Counties Veterinary Association, and has chaired the BVA Salaries and Appointments Committee. He is a past-president of the Society of Practising Veterinary Surgeons and is currently a council member of the society.

. Mr Young believes that, whenever possible, Veterinary Surgeons should play a full part in the life of



L - R : Mr. Bob Stevenson, Mr. Francis Anthony, Mr. Bob Young, Mr. Paul DeVile and Mr. Charles Frank

the community and he has been involved with very many local associations and organisations within his home town of Chagford. He has been a school governor and has served as a parish councillor for many years, including two terms as chairman.

Mr Young is married to Lorna, a schoolteacher who is head of the infants department of their local primary school. They have three daughters: Caroline is a radio producer, Georgina is in marketing and Stephanie is in book retailing.

When time allows, his hobbies include fishing, golf, sailing and photography.

- Veterinary Record Oct 2, 1993

International Veterinary Nursing Association Formed

Delegates From 13 countries formed an association to represent he interests of veterinary nurses around the world at the First International Veterinary Nursing Congrass, held at Stoneligh, Marvick-hile From October 15 to 17. The aims of the new organisation are to raise the standards of declaration of veterinary nurses internationally to expand the communications network between the protraction of the control of the properties of the mutual and the control of the properties of the mutual standards of declaration veterinary nursing qualifications. The meeting was held during last weeks congress of the British Veterinary Nursing Association,

which will handle the administration of the new association in its initial phase.

The inauguration of the International Veterinary Nursea and Technicians Association (IVNTA) was a "truly historic occasion" for the veterinary nursing profession, said Miss Gillian Notion, "Ni, incoming President of the BVNA, adding that it represented the culmination of two year's planning which had begun at the World Small Animal Veterinary Association congress in Vienna in 1991.

Each of the representatives described the training schemes, the structure and function of their nursing associations, spheres of work and salaries paid to veterinary nurses in their respective countries. While it was clear that develop-

ments within the veterinary nursing profession were happening rapidly - New Zealand and Sweden had set up nursing associations since the preliminary discussions two years ago - there was still much work to be done and it was envisaged that the I/NTA would have a crucial role to play.

Individual countries presented specific challenges. In Australia, for example, only about 700 of the estimated 5000 to 6000 qualified nurses belonged to a veterinary nursing association and there was no standardised training between the five nursing colleges.

The problem facing the Firnish nursing association, on the other hand, was not so much of attracting mareharchip. 95 of the country's 130 to 150 veterinary murses belonged to the association—but an acute shortage of nursing positions. Meanwhile, a representative of the North American Veterinary Technicians's Association reported that, in her region of the USA, in 1991 here were too problems common to all countries, such as low wages. In Germany, we say we are paid not enough to live, but for

much to die,' commented Birgit Schlickmann, the German representative.

It was agreed that the BVNA should act as the IVNTA secretariat for an initial period of one year and that a quarterly newsletter would be distributed to the member countries.

Presidents of various veterinary associations attended the veterinary nursing congress.



Mais a Gillian Notion (third from left), the new president of the BVNA, is pictured with (from the left) M. Trevor Bidesburn (World Veterinary Association); Mrs. Many Blackburn (Auxillary to the British Veterinary Profession); Mrs. Burbarn Coppre (senior vice-president) of the BVNA); Mr Spy Butcher BSAVA); Ms Debbie Baker (BEVA); Mr John Tindall (SPVS); Mr. John Tindal

The BVA president, Mr Bob Young, and vice-president Mr Paul DeVile, also attended the congress

New Telephone Nos. of CVA

President Dr. B.N. Touray

Office: 462925 462928 462929

Res : 495752

Editor : Dr. S. Abdul Rahman
Tel and Fax : 0091 80 6635210

General Articles

The Institute for Animal Health - An International Force

By B.M. Freeman, Institute for Animal Health, Compton, Newbury, England

Disease is one of the greatest economic burdens placed upon the farmer. Animal disease never goes away and pathogens, both old and new are a constant threat. It restricts agricultural development, is a serious welfare issue, poses threat to the human population and affects food quality and the environment. The task of disease control is made more difficult by the increasing international movement of livestock. It is against this background that the Institute for Animal Health has become a major player in the fight against the diseases of farm animals.

Origins

The Institute for Animal Health (IAH) was formed in 1986 by the amalgamation of four institutes already well known around the world. They were the Institute for Research on Animal Diseases at Compton, the Animal Virus Research Institute at Pirhright, the Houghton Poultry Research Station and the AFRC/MRC Neuropathogenesis Unit in Edinburgh. This amalgamation has meant that the new Institute has a formidable range of expertise, experience - a combined total of over 150 years - and facilities that are second to none in the world. There are almost 600 workers together with an additional 65 PhD students.

The International Programme

Of the 15 major diseases recognised by the Office International des Epizooties, the IAH works on no less than 12 (Table 1). It might be thought a little odd that an institute in a country essentially free of these diseases should spend any, let alone

£6.5M or 34% of its annual budget, on them. But the reason is quite simple they are potential problems for the

But the Institute does not just provide testing services. Equally important is its work on developing new, more rapid, more specific tests. A vital aspect of this on-going research is the replacement of infectious antigens with inactivated ones and also replacement of infectious antigens with inactivated ones and also replacement of the properties of t

The transfer of technology ensures that there is a steady stream of international scientists to the institute's Pibright Laboratory where they receive training and collaborate in various projects. But his movement of research workers and technicians is not just one way. There are important research links between the IAH and its Commonwealth partners (Table 3) and there are, or have been in the recent past, collaborations between Commonwealth and neightbouring countries in such projects as the Rinderpest Eradication Campaign in Tanzania and the Pan African Rinderpest Campaign.

The Research of the IAH

Whilst the UK is fortunate in that is effectively refer of the maging plagues of livestock, it does not mean that the endemic diseases do not have a considerable economic impact. Again, these problems are, for the most part, world problems too. All the Institute's research, therefore, at tracts an international audience. Essentially the research programme has two main strands - control of disease by immunological means and control through non-immunological strategies.

Immunological control

In the past, the development of vaccines (and drugs) has been based on an empirical approach, but the likelihood of finding effective new products through this method is diminishing. New products will increasingly need to "designed". through the application of information gained through basic research. Thus knowledge of the structure and functions of micro-organisms are enabling recombinant DNA technology to be used to develop genetically altered live vector vaccines. To this end there is a considerable effort in elucidating the three-dimensional structure of such viruses as foot-and-mouth disease virus and bluetonque virus. Nucleotide sequencing of the genomes of pathogens are equally important in providing the information on genetic make-up, eg African swine fever virus, Eimeria spp. etc.

A new vaccine against indepents but one recent example of a recombinant vaccine that has been developed in the IAH. It is based on the insertion of either the haemaging quitnin or fusion protein gene indo capripox vector. This vaccine is rather ingeneous in that it is bivalent, stimulating immunity to both rinderpest and lumpy skin disease. It is both rinder being tested under conditions of strict isolation with colleagues in Kenyle.

This vaccine could have been produced only as a result of a great deal of fundamental research. Thus it was necessary first to identify the most immunogenic proteins of the virus, relate their structure to that of the genes of the virus, death entire structure to that of the genes, sloalet herm and then insert them into the capripox virus vector in such a way that they were under the control of an efficient promoter, were expressed correctly and did not interfere with the vector's ability to replicate.

Immune modulation offers great promise for enhancing the effectiveness of vaccines. Programmes are in place to elucidate the pathways of artigen presentation and processing; to describe the molecular events associated with antigen reconglition and to determine the roles of the cytokines in modulating the immune response.

At the same time work is proceeding to identify the protective antigens and antigenic epitopes of the pathogens themselves. Serentiplituse event still occur. For instance even though it might be hought that the epitopes of foot-and-mouth disease had long since been described, recent work in the IAH has shown that there is a fifth important site on the virus.

Non-immune strategies

Whilst immune strategies will remain the dominant approach to disease prevention into the 21st century. they will increasingly be complemented by non-immune control methods. These will involve breeding for disease resistance through the identification of naturally occurring genes in the population which confer resistance to specific infections, and later, through their use in transgenically manipulated livestock. Other approaches will rely on the introduction of genes into the host that will allow it to inhibit virus replication or virus assembly or block or destroy host receptors for pathogens.

The Institute's efforts on unravelling the genetic code of a farm species are being directed mainly at poultry. A linkage map is already well advanced, thanks to availability of inbred strains of bird in the Institute. This, coupled with the identification of speicific genes associated with disease resistance, will allow first, the development of markers for screening populations for the occurrence of useful genes and, subsequently, their isolation for insertion into the genome of those strains that do not carry them To date, researchers at the Institute have established that there is a single gene responsible for resistance to the colonisation of at least three serotypes of Salmonella (similar to the Ity gene found in mice), another for infectious bronchitis, a third for coccidiosis, and a fourth for infectious bursal (Gumboro) disease.

The potential of epidemiology in controlling disease outbreaks is only now being properly recognised. With an understanding of the prosesses of infection, improved diagnostic animals, biomathematical modelling will be possible. The construction of predictive models of diseases will become essential elements to strategic planning in the future. The IAH is currently collaborating with groups from the Universities of Glasgow. Oxford and Strathcyde on various aspects of the transmission of foot-and-mouth for transmission of foot-and-mouth.

disease, Streptococcus Uberis-induced mastitis and bovine virus diarrhoea.

Scrapie and BSE - the great enigma

Scrapie and BSE (bovine spongiform encephalopathy) are two related degenerative diseases of the nervous system. Scrapie has been recognised in the UK for over 200 years, whereas BSE was first seen, in the UK, in 1985. Despite painstaking work over many years, the nature of the infective agent has yet to be discovered. As such, therefore, it remains one of modern biology's more intractable enigmas. Whilst many believe it to be a very small virus like organism with an independent genome of nucleic acid, others believe it to be an infectious protein.

Interest in these diseases has increased recently because it is believed that BSE may have emerged through the scraple agent crospie through the scraple agent crospie through the scraple agent crospie ontalining sheep offall contamilied with scraple. The Institute's research is directed towards establishing the nature of the infectious agent, the pathogenesis of the diseases and developing non-invasive diagnostic tests.

Zoonoses

Food poisoning, especially by salmonella-contaminated poultry, remains a major problem worldwide. Campylobacter and other bacterial pathogens are also studied. The IAH is involved in the development of rapid diagnostic tests and of vaccines that many prevent the harbouring and shedding of these bacteria.

Animal diseases as models for human disease

Finally we move from diseases that affected only the animal via those that affect animal and man to those that affect only humans. Two examples will suffice to illustrate some of the wider implications of the IAH's animal disease research programme. Respiratory syncytial disease in the new born calf and human baby is caused by closely related viruses. The successful development of a vaccine against the disease in calves has provided the necessary background material - a protective antigen - which crossreacts with the human strain of the virus. This is now being taken forward to develop a 'humanised' antibody.

The second example is the assumed relationship between the animal (scrapie, BSE) and human (CJD. Creutzfeldt Jakob disease) transmissible spongiform encephalopathies. The experience of the IAH in the former is of considerable value in developing research models in the latter.

Postgraduate Training

Mention has already been made of the Institute's role in training neonle from overseas in diagnostic techniques. The Institute is also a major training centre for research workers. Currently there are 65 students working for their PhD. Of these 25% are from overseas.

IAH International

The IAH is very much an International research institute, dedicated to the understanding and control of animal disease. But not only is it working on the problems of today but it is also maintaining expertise that will allow it to respond usefully and rapidly to the problems of tomorrow. One thing is clear, disease is dynamic. Old diseases change and new ones emerge with predictable regularity. Healthy livestock depend on constant vigilance and the research capability of the IAH and similar institutes.

Table 1: Major diseases of farm animals¹ Foot-and-mouth disease Vesicular stomatitis Swine vesicular disease Binderpest Peste des petits ruminants Contagious bovine pleuropneumonia Lumpy skin disease Rift Valley fever Sheep and goat pox African swine fever Hog cholera Teschen disease Fowl plaque Newcastle disease

Table 2:	Diagnostic and Reference Laboratories at
	IAH Disease Sponsoring body

African horse sickness FAO, OIE OIF FAO. OIE Capripox OIE FAO, OIE2 Foot-and-mouth disease Marok's dispaso FAO, OIE Peste des petits ruminants Rinderpest FAO, OIE Swine vesicular disease OIE2 1 FAO = Food and Agriculture Organisation: OIE - Office Inter-

1 As defined by Office International des

Epizopties - list A

national des Epizooties 2 The Institute also acts as the Reference Laboratory for the

European Community

Table 3: Current IAH and Commonwealth Links¹ Australia Australia Animal Health Laboratory, Geelong

Molecular biology and replication of bluetongue and related or-biviruses (P P C Mertens)1 Epidemiological and diagnostic aspects of foot-and-mouth disease (R P Kitching)

Bureau of Rural Resources, Department of Primary Industries and Energy, Canberra

Epidemiology and distribution of bluetongue viruses across Australia and Indonesia (P P C Mertens) CSIRO Long Pocket Laboratory, Indooroopilly

Effects of climatic change on insect vectors (J E Hillerton) University of Melbourne Bovine inflammatory factors (L H Thomas)

GB Pant University of Technology, Pantnager

Salmonellosis (P W Jones, A J Lax) Harvana Agricultural University Characterisation of sheep pox viruses (D N Black)

Indian Institute of Science, Bangalore Epidemiology and diagnosis of rinderpest and peste des petits ruminants (T Barrett)

Indian Veterinary Research Institute, Izatnagar Training projects on the control of salmonellosis and on recombinant DNA and allied technologies for animal health provision (P W Jones, C J Bostock)

Institute of Veterinary Preventative Medicine Use of sheep and goat pox vaccines (D N Black) Veterinary College, Andhra Pradesh Agricultural University

Characterisation of sheep pox viruses (D N Black) Veterinary College, University of Agricultural Sciences, Ban-

Sheep and goat pox vaccines (D N Black) Kenya

International Laboratory for Research on Animal Diseases, Nairobi

Bovine immunology (W I Morrison, C J Howard) Kenya Agricultural Research Institute, Muguga and Kenya Trypanosomiasis Research Institute, Nairob

Immunosuppression by rinderpest virus (T Barrett) Epidemiology of lumpy skin disease (A I Donaldson, R P Kitching, D N Black) Zimbabwe

Veterinary Research Laboratory, Harare Epidemiology of foot-and-mouth disease in livestock and wildlife (R P Kitching)

Epidemiology of bovine virus diarrhoea viruses (J Brownlie) 1 Additionally the Institute maintain an Emergency Vaccine Bank against Foot-and-Mouth Disease, Of the seven member states, three are from the Commonwealth Australia, New Zealand and the UK.

2 IAH staff are identified in parentheses.

Abstracts

The Veterinarian's Role with AIDS Patients

The general guidelines listed below are for the prévention of pet-associated zoonoses to immunocompromised owners.

Animals to avoid:

- ☐ Immuno-suppressed animals;
 - Exotic or wild animals;
 - Stray dogs and cats; and
- Sick animals (particulary animals with diarrhoea)

Hygiene:

- ☐ Wash hands after handling pet, litter box, or aquarium.
- Have someone not at risk clean the litter box, if

☐ Change litter daily; avoid aerosolisation of contaminated dust during litter changes by use of plastic liners or dust-free litter.

- ☐ Keep litter box away from kitchen/dining areas.
 ☐ Disinfect litter box frequently by filling with boiling
- water and allowing to stand a minimum of five minutes. This should kill any infective toxoplasma occysts.
- Aquariums should be kept clean. When cleaning aquariums, rubber gloves should be worn. Ideally, someone not a risk should assume this task.
 - e not a risk should assume this task.

 Control fleas (as well as other pests).
- ☐ Minimise contact with pet urine, blood, and faeces; clean up such fluids with a solution of 25 grams of sodium hypochlorite (household bleach) per litre of water. Rubber gloves should be worn and hands should be washed afferward.

Diet:

net.

- Never feed raw meat or unpasteurised milk to a
- Do not allow pet to drink from the toilet bowl, as this may predispose the pet to disease.

Cats should be kept indoors or belled to prevent hunting.

Dogs should be leashed at all times to discourage scavenging.

Bites and Scracthes:

☐ Wash with water and disinfect with betadine, tincture of iodine, or mercurochrome; all bites should be examined promptly by a physician.

- ☐ Keep pets' nails shortly trimmed.

 Preventive Veterinary Care:
- ☐ Keep vaccinations current.
- Seek prompt attention for any sick animal.
- Have all new pets examined by a veterinarian.

Pet ownership does present increased health risks for persons with AIDs. It is allor recognised that there are important physiologic and psychologic benefits of pet ownership. Finding from several studies indicate that per are helpful in reducing heart rate and lowering blood pressure. Animals are also beneficial in helping people deal with anxiety and despair.

A one-year study of live-in and visiting pet programmes in Minnesota nursing homes showed pet exposure to be safer than human exposure, with respect to disease. Residents of such homes are in various states of immunosuppression, in hart sepect, another study indicated that increased immunocompetence and increased resistance to disease are potential benefits of animal interaction. It confirmed, this could be of vital importance to persons with AIDS.

The first large-scale of the risks and banefits of pet own problems of LADS galacies has been undertaken, and preliminary results indicate risks are low or the AIDS-defining zoonoses and somewhall higher for other zoonotic diseases. Various psychosocial massures are being applied to evaluate the effects of pet ownership on depression, coping, and lomeliness. Results are expected within the next year: Source: GILL, D.M. et al. (1992). J. Am. Vet. Med. Associ 11:1683.

One of the world's great literary figures, Leon Tolstoy, counselled wisdom in dealing with our wishes and desires.

There is a line of my grandfather's that I have never forgotton," said Tania Albertini Tolstoy, the favourite granddaughter of the author of War and Peace and Anna Karenina. "He was talking once to his friend, the poet Sologub, who told him: "You are a truly lucky man, You have everything you ever wanted; everything you love."

"My grandfather answered: "I don't have everything I love, I love everything I have"."

CALENDAR - 1994

Annual Conference of the International Embryo Transfer Society 9th-11th January: Melbourne, Australia

Australian Poultry Science Symposium 8th-9th February: Sydney, Australia

Australian Veterinary Association, National Conference 6th-11th March: Canberra, Australia British Small Animal Veterinary Association, Annual Meeting 7th-10th April:Birmingham, U.K.

Seventh International Conference on Equine Infectious Diseases 8th-11th June: Tokyo, Japan

13th International Pig Veterinary Society Congress 26th-30th June: Alberta, Canada

4th International Conference on Equine Exercise Physiology 11th-15th July:Kooralbyn. Queensland, Australia

5th World Congress on Genetics Applied to Livestock Production 7th-12th August:Guelph, Canada

7th International Symposium on Veterinary Epidemiology and Economics 15th-19th August: Nairobi, Kenya

World Small Animal Veterinary Association, Meeting 22nd-28th October: Durban, South Africa

1995

British Small Animal Veterinary Association Annual Meeting 6th-9th April:UK

Australian Veterinary Association, National Conference 20th-26th May: Melbourne, Australia

XXV Congress of the World Veterinary Association and XX Congress of the World Small Animal Veterinary Association 3rd -9th September, Yokohama, Japan

1996

World Small Animal Veterinary Association, October 6th to 11th, Jerusalem, Israel.

ADVERTISEMENT TARIFF

Full Page US \$ 400.

Quarter Page US \$ 100.

Back Cover and Selected Pages: US \$ 800 Half Page US \$ 200

\$25 per column inch of classified advertisement. Colour Pages quotation on request

Annual Subscription for CVA News is 12 Aust. \$ Life Subscription 300 Aust. \$



Vice President

Secretary Treasurer

COMMONWEALTH VETERINARY ASSOCIATION

His Excellency, Sir Dawda Jawara Patron

President, Republic of The Gambia Dr. B.N. Touray

President C/o International Trypanotolerance Centre,

Private Mail Bag 14 Banjul, THE GAMBIA (WESTAFRICA)

© Off: 462925/462228/462929 Home: 495752

Cable: ITC, Banjul The Gambia Telex - 2301. GV Fax-92924

Dr. Bert Stevenson

P.O. Box 1410, Sackville, N.B. CANADA FOA 3CO

Ø 506-536-0135 Dr. W.J. Pryor

Galwiji, Pryor's Road,

Scotsburn, RMBN 141, Victoria, AUSTRALIA 3352

Programme Director Dr. I.T. Blackburn

C/o British Veterinary Association,

© Off: (53) 413397, Fax: 053412273 7 Mansfield Street, London, WIM OAT, ENGLAND

© Off: (071) 6366541 Home: (0223) 841158 Fax - 071 4362970

Regional Representatives

ASIA	C/o Bangladesh Veterinary Assn. SOUTHERN AFRIC		A Principle Veterinary Offi		
	No. 48, Kazi Allauddin Road		Min. of Agr. P. Bag A82		
	Dhaka-2, BANGLADESH		Maseru	100,	LES
	© (00880) 2256627		© 317672	(H) 322	444 (W

Maseru 100, LESOTHO 7) 317672 (H) 322444 (W) Dr William Amanfu

AUSTRALASIA Prof. Dr. Syed Jalaludin WEST AFRICA Syed Salim Deputy Vice Chancellor,

Ghana Veterinary Medical Association P.O. Box 143 Legon CHANA

Universiti Pertanian Malaysia 43400 UPM Serdang, Selangor.

(WEST AFRICA)

© 233-21775388 (O)-777492 (H) FAX: 233-21-668245

Dr. Lebohang Khomari Principle Veterinary Officer

@ 03 - 9486539 - FAX: 03 - 9482507 CANADA Dr. Keith Amiel

HK Dr. Laura I. Bowen

CARIBBEAN Kingston,

MEDITERRANEAN C/o. British Veterinary Assn. 19 Mountain Spring Drive 7. Mansfield Street, London, WIM OAT, ENGLAND IAMAICA

WEST INDIES @ /FAX:(809) 9272708 © 071 6366541 - 0491-33745 (H)

FAX: 0491 652072 - 071 4362970

Dr. S. Abdul Rahman

Editor

COMMONWEALTH VETERINARY ASSOCIATION NEWS 123. 7th B Main Road, IV Block (West), Jayanagar, Bangalore -560 011 India Tel 91-80-6635210 Fax: 91-80 6635210