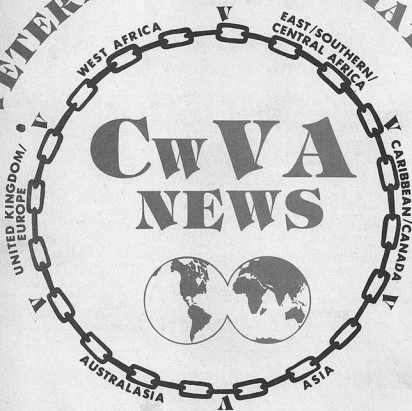


Den of Veterinary History

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JANUARY 1989

COMMONWEALTH VETERINARY ASSOCIATION



CWVA NEWS



TO
STRENGTHEN THE LINKS
OF
FRIENDSHIP & CO-OPERATION
BY
KNOWING EACH OTHER
BETTER



The Commonwealth Veterinary Association News Circulating throughout the Commonwealth and beyond



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EDITOR'S REMARKS

New home for CwVA News

After completion of the next issue (July 1989) the CwVA News will be moving from the CwVA News Bureau in Lucknow, Canada, to Bangalore in India. Truly a long and appropriate journey across our Commonwealth. The new editor will be Dr. S. Abdul Rahman.

Dr. Rahman is a much travelled and well-known veterinarian. He is a professor of veterinary parasitology and is held in high esteem throughout international academic circles. Dr. Rahman is General Secretary of what may be the largest national veterinary association in the world, The Indian Veterinary Association. He is also the CwVA Council Member for India and the CwVA Regional Representative for the Asia Region.

Dr. Rahman is no stranger to the field of journalism. He is an associate editor of the Indian Veterinary Journal, editor of 'The Veterinarian' and editor of the CwVA Asian Newsletter. The Veterinarian is a very popular monthly magazine, which is published in India and dedicated to the work of the practicing veterinarian.

Dr. Rahman's address is: Dr. S. Abdul Rahman, General Secretary, Indian Veterinary Assoc., No. 123, 7th Main Road, IV Block (West) Jayanagar, Bangalore - 560 011, India.

PLEASE NOTE - After March 1st all correspondence to the EDITOR, CwVA News, should be addressed to Dr. Rahman. The exception would be material specifically earmarked for the July/89 issue. For journals and newsletters the changeover date should be February 1st, from then on they should be sent to Dr. Rahman.



Seen at the recent Solomon Islands conference are from the left: Dr. A.R. Matata (Malaysia), Dr. S. Abdul Rahman (India), Dr. C.H. Giam (Singapore). Dr. Rahman will be assuming the editorship of the CwVA News in July. Dr. Giam's project 'SerVet', which would allow veterinarians to make personal contributions to the Hungry World, is creating substantial interest throughout much of the veterinary community.

As an association, and as individuals, we can never do everything. But we can always do something. That we cannot do all things should never deter us from doing as many things as we can as well as we can.

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When you have read this copy, please pass it on to a school, library or a new reader.



Patron - His Excellency, Sir Dawda Jawara,
President of the Republic of The Gambia
Honorary President - Dr. L.P.E. Choquette

Executive Committee:

President - Mr. J.T. Blackburn
Vice President - Dr. B.N. Touray
Secretary/Treasurer - Dr. J. Archibald

Regional Representative of:

Asia - Dr. S. Abdul Rahman
Australasia - Dr. W.J. Pryor
Caribbean/Canada - Dr. J.L. Robinson
East/Central/Southern Africa - Dr. S.P. Kamwendo
West Africa - Dr. B.N. Touray
UK/Europe - Mr. J.T. Blackburn

The President's Message

Although, for obvious reasons I am having to write this column towards the end of 1988, it will be early 1989 by the time you read it. I would therefore like to take this opportunity to wish you a happy and successful year in all your endeavours.

1988 saw disaster strike in two areas of the Commonwealth, the very severe flooding in Bangladesh and Hurricane Gilbert which devastated the Caribbean.

Several members have drawn attention to the fact that this Association should have some plan to assist colleagues within the Commonwealth when disaster strikes.

This is something which should obviously be in our Forward Plan and I have asked the Executive to put forward ideas for the formulation of such a plan. Please send your ideas to your regional representatives to assist us in this task.

In the meanwhile, it is hoped that by the time that you are reading this, we will have had regional meetings in both Bangladesh and the Caribbean at which the role of the Commonwealth Veterinary Association in such problems will have been discussed and hopefully we may have some programme to put forward.

It occurs to me that this is a particular area in which the twinning programme could be of assistance by providing direct links with colleagues. You will recall that the twinning programme was referred to in The News Jan. 1988, pg. 30. This twinning programme is now beginning to take shape as indicated in a report, by Asif Khan of the Commonwealth Secretariat, which will appear in the July/89 News.

In reviewing to the progress made to date on the twinning programme, it has to be noted that variable success has been achieved in establishing the appropriate contacts. One of the purposes of setting up the twinning programme was to improve communications, but what do you suppose is the biggest problem in setting up such a programme? Communications.

There have been complaints from each side of various sets of "twins" complaining that their contact person has not responded. Obviously it takes a long time to establish such contacts and to develop them. It is essential for each party to such a programme to nominate someone who is really enthusiastic and who will persist in attempting to establish contact. People who give up when their first letter achieves no response have no part in such a programme and would better not to become involved in it at all. Nevertheless a degree of success has been achieved and some groups are now establishing contact and in one particular case students from one of the overseas countries who are studying in Britain have been invited to visit colleagues in the "Twinned Group".

I am not so naive as to believe that this programme will take off immediately and everybody will jump with glee and say what a good idea, let's all write to each other, but I am sanguine that this programme will eventually succeed and I estimate a minimum of 5 years to establish it as being of any value. Everything of course depends on whether or not you believe in it and wish it to be successful.

I would reiterate the point which I made in the comment in the News of Jan./88 pg. 30 stating that this programme is not confined to contact between so-called developed and developing countries but can be set up between any countries who wish to be involved.

To continue with my favourite topic of communications I believe it is essential that at sometime in the not too distant future we should set up a Pan-Commonwealth Conference to bring together as many of the veterinary surgeons in the Commonwealth as we can for discussions of mutual interest.

With this in mind, I wrote to all council members last year, asking for their views on such a conference and an indication of whether their country would be prepared to host such a conference.

A report of the response appears on page 47 this edition of the News. Listed are all countries who responded to this request for information. If any of you who responded have been missed out please accept my apologies. It is possible that your letter has been lost in the post.

Turn to page 7

Australasian council holds meeting

The fourth meeting of the Australasian Regional Council of the Commonwealth Veterinary Association (CwVA) was held at the Mendana Hotel, Honiara, Solomon Islands, on the 18th of June, 1988.

The following delegates attended: Dr. W.J. Pryor (Regional Representative - Australasia, Chairman); Dr. Colin McQueen (Solomon Islands); Dr. Mike Nunn (Papua New Guinea); Dr. P. Bazeley (Vanuatu); Dr. N. Tabanakawai (Observer from Fiji); Dr. E. Shortridge (New Zealand); Dr. G. Moengangongo (Tonga); Dr. Ahmad Mustafa bin Hj Babjee (Malaysia); Dr. K. Lameta (Western Samoa); Dr. T. Blackburn (President CwVA); Dr. Giam Choo Hoo (Singapore); Dr. Abdul Rahman (Regional Representative - Asia); Dr. H.G. Osborne (Australia - Acting Secretary).

The Chairman, Dr. W.J. Pryor, welcomed the CwVA President, Dr. J.T. Blackburn of UK, Dr. S. Abdul Rahman, Regional Representative for Asia and Dr. N. Tabanakawai from Fiji who attended as an observer.

Regional Report on CwVA Activities

Dr. Bill Pryor, council member for Australia and CwVA Regional Representative for Australasia reported that:

"Since the Third Meeting of the Australasian Regional Council of the CwVA held in Malaysia on 21 April 1986, a major effort has gone into extending membership of this region, and planning for the present Conference. Such a conference was first mooted in 1982 and CwVA interest confirmed at the Second CwVA Regional Council meeting in Perth in 1983.

It has been a source of particular pleasure that a number of new member associations in the Pacific Region have joined the Australasian Regional Council, including the Solomon Islands, Vanuatu, Tonga and Western Samoa. The Regional Council has received with pleasure the news that a merger of the two veterinary associations in Malaysia is a likely possibility in the near future.

All associations now pay a regular subscription, even though this is a token only for some of the very small associations. The Regional Council regrets the loss of Fiji from its membership but welcomes its continuing involvement as an observer. Total subscriptions from this region are approximately \$7500 per year.

The Regional Council is pleased to welcome the President of CwVA (J.T.

Blackburn) to its meeting in the Solomon Islands. In the chairman's view, the President, since taking office recently has with the help of a vigorous executive, greatly expanded the efficiency and output of CwVA.

'CwVA News' now appears regularly each six months and has attracted broad acclaim for its usefulness as a medium of communications. There has been a good coverage of events carried out in this region included. We must continue to provide comprehensive material for 'CwVA News'.

The Executive Committee of CwVA held its second meeting in the Gambia in March 1987, and the Regional Representative represented this region. The meeting was conducted jointly with a seminar on animal health assistants and a conference on trypanotolerance of cattle and an institute opening. This is standard practice now for all CwVA Executive and regional meetings.

It should be recorded that the seminar and the report of the Third Regional Council meeting referred to earlier were published in full in *Kajian Veteriner Malaysia* and the region is indebted to the Malaysian delegate for the excellence of these arrangements.

Other programs of the region continue, including journal exchange and donation and improved information exchange. There is little doubt that this regional council is increasing in cohesiveness and effectiveness and this will continue to be the goal.

The Regional Representative was appointed for the period '1985-1989' and is due to step down next year with Malaysia then to assume the office. The President of the CwVA has concerns about continuity of the Executive Committee and the desirability of staggering changeovers in adjoining regions and has been invited to address the Regional Council on a proposal relating to this matter.

Finally the present Conference has resulted from intensive effort from a very limited number of people and the Regional Representative would like particularly to thank Dr. Colin McQueen (Solomon Is) and Dr. Ian Davis (Australia) for their hard work and organization and the Commonwealth Veterinary Association, ADAIB, AVA & IRETA for their strong sponsorship support for this unique conference. May its success justify those efforts."

Source: Communication from Bill Pryor.

Update on Book and Journal program

The New Zealand Veterinary Association has donated subscriptions of its journal, *Vet Script*, to St. Lucia, Sri Lanka, Western Samoa, Bangladesh, Tonga, Solomon Islands and Vanuatu.

The Australian Veterinary Association has supplied the Training Institute in Papua New Guinea with back issues of the Australian Veterinary Journal.

The Australian Post-Graduate Foundation has donated \$600 worth of publications to the CwVA Australasia Region. These are being distributed throughout the Pacific Commonwealth

island community.

The University of Melbourne Centre for Continuing Education and the Veterinary Postgraduate Foundation of Sydney University will both be supplying notification, of programs, to representatives of the CwVA. This information will be passed along to animal health centres and to veterinary associations and groups.

Professor David Blackmore of Massey University has provided CwVA members of the Australasia region with data on public health, and he plans to continue to do so in the future.

For info on
Pan-Commonwealth
Conference

see Page 47

President Blackburn addresses regional council

At Honiara, in the Solomon Islands, during the June 18th, 1988, CwVA Australasian Regional Council Meeting the chairman, Dr. W.J. Pryor, invited CwVA President, Trevor Blackburn, to address that gathering.

The President commenced by reminding members that this year was the 21st anniversary of the founding of the Association and went on to give a brief history of the Association and outlined the aims and objectives.

He drew attention to the fact that the main source of funds for the Commonwealth Veterinary Association was the Commonwealth Foundation which was founded in 1965 specifically to assist the setting up of Commonwealth Professional Associations. The Commonwealth Veterinary Association is only one Association in a number of Professional Associations all of whom obtain funds from the Foundation and consequently it was necessary to demonstrate our ability in order to justify the provision of funds.

Until fairly recently the Commonwealth Veterinary Association has maintained a low profile and the Executive meeting met only four times - 1968, 1974, 1984 and 1987.

Over a long period of time, there appeared to be little real interest in the Association and it was kept alive primarily by the efforts of Dr. Laurent Choquette, then Secretary/Treasurer, later President and now Honorary President for life. More recently a group of active participants have been attracted to the Association and various projects have been introduced. The most successful of these projects has been the introduction of the Commonwealth Veterinary Association News which is now well received throughout the Commonwealth and has improved communications immensely. As well as this, an Animal Health Assistant Training Project is in hand and one Animal Health Assistant Seminar has been held in The Gambia, March 1987 and the report of that seminar is available to all members. The second part of the Animal Health Assistant programme will take place in Bangalore in February 1989 and the President stated that he hoped that as many people as possible from the Australasian region would be able to attend.

He called attention to the books programme and stated that anyone who had difficulty in obtaining books or was interested in exchanging scientific

literature should contact Bert Stevenson in Canada.

He stressed that close liaison was maintained with the Foundation and attempts were being made to obtain funds from other sources for example, EEC and CTA. We have been successful in our approaches to the latter organization, CTA who had referred us to the Pacific Regional Office, IRETA with the result that they had been helpful and sponsored two attendees at this conference as well as sending one of their own members of staff from the University of the Pacific in Apia.

All this was helping to raise the profile of the Commonwealth Veterinary Association and was helping to establish our credibility, evidence of this being the recent invitation to the President to attend the Chief Veterinary Officers conference in Kuala Lumpur. Unfortunately he had not been able to attend and has asked Bill Pryor to represent the Association.

In view of the increased activity of the Commonwealth Veterinary Association the President pointed out the importance of maintaining contin-

ty of the Executive. He said that he had attended his first Executive meeting in 1984 and when he attended the second Executive meeting, the only people who were still on the Executive Committee were the President, the Secretary and himself. He put forward the suggestion that election of Regional Representatives should be staggered and suggested a plan by which the six Regional Representatives would be paired, e.g. Canada/Caribbean; UK/Mediterranean; West Africa/East Africa; Asia/Australasian Region. In the case of the Asian and Australasian Regions, in view of the fact that the Asian Representative was now about to be replaced next year, he suggested that the Regional Council may wish to consider extending the period of office of the Australasian Regional Representative in order to stagger the elections between the two regions. The ideal situation would be for one person in the paired regions to change each two years.

Source: Correspondence from Solomon Islands meeting.

CwVA at work

ference in Kuala Lumpur, Malaysia (March/88).

The following are quotes from letters received by Bert Stevenson, the 'Book & Journal' coordinator:

- from Dr. E. Feron of the Ivory Coast: "This book will be a great help when I go back to the field in Africa."

- from Dr. J.K. Gachaki of Kenya: "This wonderful gift will always be a great source of knowledge."

- from Dr. H. Jhoree of Mauritius: "I hereby acknowledge, with thanks, the receipt of a copy of the 5th Edition of the Merck Veterinary Manual."

- from Dr. Fazlul Bari of Bangladesh: "I am a veterinarian, dealing with the health of animals in my country. Most

of the time I have to go the villages to treat sick animals of the poor farmers. I also give lectures to farmers. These classes deal with prevalent diseases, as well as government regulations dealing with livestock and poultry. I am highly glad to receive a copy of the book (Merck Veterinary Manual). It will be very helpful to me."

- from Dr. J.O. Dube of Swaziland: "On behalf of our Swaziland Veterinary Association and that of myself, I would

Turn to page 6

The CwVA 'Book & Journal' program has made great strides forward. Under the guidance of CwVA worker Bert Stevenson (Canada), it has become an important and a vibrant part of cooperative development efforts of Commonwealth veterinarians. The generous donation of several hundred copies of The Merck Veterinary Manual by Merck & Co. Inc. added substantially to this progress. The distribution of these manuals from the UK is being coordinated by CwVA worker Trevor Blackburn (UK). He is being assisted by the efforts of several CwVA supporters.

Chris Daborn, TVM Course Supervisor at the Centre for Tropical Veterinary Medicine at Easter Bush, Scotland, distributed 27 copies to veterinary postgraduate students from the developing Commonwealth. These recipients came from Bangladesh, Kenya, Uganda, Nigeria, Botswana, Mauritius, Sri Lanka, Ghana, Jamaica, Malawi, Malaysia and The Ivory Coast. Two copies went outside of the Commonwealth, one to Sudan and one to Somalia. Another 12 copies of The Merck Veterinary Manual were distributed at the Commonwealth CVO's Con-

CwVA patron becomes fellow of RCVS

Sir Dawda Kairaba Jawara, Patron of the Commonwealth Veterinary Association, was elected to Fellowship of the Royal College of Veterinary Surgeons early in 1968. It is with much pleasure that the CwVA News reproduces the citation that accompanied the presentation of the prestigious honor:

"SIR DAWDA KAIRABA JAWARA"

"This is a unique occasion on which a Head of State joins the Officers and members of the Royal College to be presented, not with an Honorary Associateship, but with the Fellowship of the College - thereby indicating to the world that he himself is a member of the College.

His Excellency Sir Dawda Jawara, the President of The Gambia, received his schooling in that country, and then took his first steps in higher education in Ghana. From there he proceeded to the University of Glasgow to study veterinary medicine. He was one of the last students to have to stand up to the rigours of the MRCVS Diploma examinations, and was admitted a member of the College in 1953. He returned to The Gambia and was appointed a Veterinary Officer in Government service in 1954. Some two years later he returned to this country and studied for the Diploma in Tropical Medicine at the University of Edinburgh, thus showing a fine sense of impartiality as between the two Scottish Veterinary Schools. On returning to The Gambia in 1957 he was appointed Principal Veterinary Officer, a post held until 1960 when he was caught up in the excitement of pre-independence politics in the Gambia. He resigned his post and took up a new challenge as leader of what was later to become the People's Progressive Party.

His personal progress was startling in its rapidity. He was admitted to the House of Representatives in 1960, appointed Minister of Education shortly afterwards, and by 1963 was The Gambia's Premier when the country achieved Internal Self-Government. From there it was a short, but important, step to full Independence in 1965. He led his party to success in the General Election of 1966 - and continued as Prime Minister, until he became the first President of the Republic of The Gambia in 1970. Since then he has regularly submitted himself for re-election and has been just as regularly returned to office.

The first of his many honours - his appointment as Knight Bachelor - was

received in 1966: by an extraordinary coincidence on the same day as his Glasgow University Veterinary School Dean, Sir William Weipers, an eminent Past President of the College whom we are delighted to see here today. Sir Dawda is currently Chairman of the Peace Committee of the Islamic Conference Organization with special responsibility for bringing peace to Iran and Iraq, a task in which we would all want to wish him success.

A peaceful man by nature, he showed tremendous personal courage when his country was threatened by an attempted coup. Despite threats to his family held as hostages, he restored stability to the country and pioneered a political confederation with neighbouring Senegal.

During his long period of high office Sir Dawda has never lost touch with the

Veterinary world. For many years he was President of the Commonwealth Veterinary Association and remains its patron.

He has always been aware of the great importance of the N'Dama cattle in The Gambia which, over some 7000 years have, developed resistance to the tsetse fly disease trypanosomiasis. In the seventies he encouraged scientists from his old Veterinary School in Glasgow to initiate a research programme into this resistance factor which has become known as trypanotolerance. Not content with this he persuaded the international community in the early eighties to establish a research centre to be known as The International Trypanotolerance Centre.

The culmination of those efforts took
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The CwVA at work

from page 5

like to extend many thanks for your kind donation of "Miller's Anatomy of the Dog". Most of our veterinarians qualified before there was a specific book on the anatomy of the dog. This book will form an invaluable contribution to the profession, especially to the budding small animal practice of Swaziland."

- from Dr. W. Amanfu of Ghana: "I am writing to acknowledge, with a deep sense of gratitude, the receipt of 2 books: Hagan's Infectious Diseases of Domestic Animals, and Veterinary Pathology. I would like to assure you that they will be put to good use within our department library and the diagnostic laboratory."

- from Dr. H.E. Williams of Trinidad & Tobago: "I write to acknowledge the receipt of 13 books, The Veterinary Clinics of North America. They were sent by the Alberta Agricultural Library in Edmonton, Alta. Kindly convey our warm thanks to the senders. I note that there is appreciable postage (\$23.50 Can.) involved in this act of generosity."

- from Dr. P. Msolla of Tanzania: "This is to acknowledge, with thanks, the receipt of the book, Canine Surgery (2nd Archibald edition)."

We quote from a letter to CwVA President Trevor Blackburn from Dr. Matz Mosienyane of Botswana. This letter was written on Dr. Mosienyane's return from the Commonwealth Chief Veterinary Officers conference in

Malaysia last March (1988). It refers to that conference: "Let me thank you and confirm that I was given a copy of the 5th Edition of the Merck Veterinary Manual, a truly useful tool to a practitioner. Copies of the Merck Manual were gifts to some of us from the Commonwealth Veterinary Association."

The above are samples of messages from various recipients of books. We close this item with a note from two active participants.

Communication from the Delton Veterinary Hospital, Edmonton, Province of Alberta, Canada:
May 27, 1988

Dear Dr. Stevenson, (CwVA Book and Journal Coordinator)

Well, the deed is done. All the books and journals are off to Malawi, The Gambia and Zambia. We hope that they arrive in reasonable condition. Enclosed is a cheque to cover the difference in anticipated postage, as well as postal receipts.

We must say that it involved a little more work than we had originally thought, but we are sure that the end result will be well worth it. Thanks for giving us the opportunity to put our surplus books and journals to some good use. All the best!

Sincerely,
Ken Keeler and Mike Pearson.

SUPPORT THIS CwVA PROGRAM. WITHOUT YOUR PARTICIPATION IT CANNOT REACH ITS FULL POTENTIAL FOR GOOD.

Afterthoughts on seminar

From Holman E. Williams
 (Former Council Member
 - Trinidad/Tobago)

Important ingredients of the meeting were its excellent organization and management, and the associated events in a third world country which was most hospitable to us.

I believe that the Committee made very good use of its time in The Gambia. If I could re-convene it for another hour or so I would wish to stress the need to recognize that the veterinary profession is the one best placed to give leadership to the whole of animal agriculture, at least in the LDCs. Hence, we should actively reach out to our colleagues in animal production, at all levels, and make it clear to funding agencies that our mandate extends beyond just health considerations.

In my opinion, the unit veterinary associations, which comprise the CwVA, are too remote from the Commonwealth action to share the Executive Committee's enthusiasm. In the circumstances, I propose a congress of Commonwealth Veterinary Associations (including livestock specialists)

giving emphasis not primarily to research reports but to: the organization of livestock services in the public and private sector; National livestock development projects, and their impact on human welfare and the environment; the consequences of disease control and eradication; safe movement of elite genetic material between Commonwealth countries (sharing of quarantine facilities and sophisticated laboratory disease diagnostic skills); training; advancement of the profession and its members; involvement of and guidance to funding agencies; interaction with other professionals and services (agriculture, health, wild life management, etc.); identification/recognition of consultancy expertise in the LDCs, the application of biotechnology in LDC situations (e.g., increasing the Jamaica Hope breed of tropical milking cow to have an economic impact on dairy development in Jamaica and, possibly, the Caribbean region); etc.

Finally, there was one negative aspect. I regret very much that there was not time (a day) to get a feel for the veterinary services and animal health problems in The Gambia.

Named 'fellow'

from page 6

place in March this year when he formally opened the new buildings at the Centre and presided over a scientific conference from which emerged plans for the new centre to become a main focus for research on disease resistance by genetic selection in collaboration with other institutions across the world.

There is no doubt that this has been a major achievement in the interests of the veterinary profession and the livestock industry which, this man, Sir Dawda Jawara, a busy President, has found the time and the determination to bring to fruition. This member of our profession holds a unique position in the world today. The Royal College of Veterinary Surgeons takes great pleasure in honouring him by electing him a Fellow'.

Law on syringe disposal

In Queensland, Australia, in order to reduce the risk to workers in the waste disposal industry, the Refuse Management Regulations were amended to require persons disposing of syringes and needles to place them in puncture resistant containers. The law reads: "A person shall not dispose of or store for disposal any article which has been in contact with or contains any human or animal tissue or body fluids or excreta and which is capable of penetrating the skin of a living human being, other than by placing such article in a rigid wall puncture resistant container and sealing or securely closing such container in such a manner so that the contents thereof are incapable of causing injury to any person."

Source: Aus Vet J May/88

Former CwVA council member dies

The following is a letter of September 28, 1988, from Dr. Maurice Isaacs, Secretary of the Veterinary Medical Association of the Bahamas and CwVA Council Member.

Quote: "It is my sad duty to inform you of the loss of a colleague and a friend. Dr. Gordon Leam lost his long fight against cancer and died in the hospital in Sussex, England, on

Wednesday, September 21.

There is no need to remind you of the years of dedicated service that Dr. Leam provided in this country, to our veterinary association and to the Commonwealth Veterinary Association. We will greatly miss his witticisms and his excellent humor, while I have lost the man who inspired my wish to become a veterinarian."

Signed: Maurice Issacs

The President's Message

from page 3

I believe that we should set a target date of 1990 for such a conference. It is therefore essential to make a decision on the site and theme of the conference.

It is interesting to note that the choice of site in most cases appears to be either the country of the person making the report or one of the so-called developed countries i.e. Canada, Australia or Britain. The Executive will be giving this matter careful consideration in the very near future and if you have any strong feelings on this matter please contact your regional representative immediately so that he may forward your views ready for our discussions.

Referring to this last point once again I encourage you to let your regional representatives know your views on matters affecting this Association and also I encourage you to write to the Editor of this News so that we can establish a healthy correspondence column.

J.T. Blackburn
 President

President Blackburn visits Tanzania

In December 1987 I had the privilege of representing the Commonwealth Veterinary Association at the Fifth TVA Scientific Conference as a guest of the Tanzania Veterinary Association.

This conference was held 1-3 December 1987 at the Arusha International Conference Centre which is a well equipped conference centre with all modern facilities.

The conference theme was "The Veterinary Profession and the African food situation".

The conference was well attended with over two hundred participants mostly from Tanzania but from other countries in Africa and Europe.

The conference was opened by the Minister for Agriculture, the Honourable Jackson Makweta, who called attention to the need for improved livestock production in order to feed the people of Tanzania. I was allowed to address the conference and took the opportunity of passing on the greetings of our Patron His Excellency Sir Dawda Jawara, President of The Gambia and called to the attention of the participants that he is the only veterinary surgeon to have become a Head of State and that hopefully this would provide some of those present with food for thought. Papers were presented and May and Baker (East Africa) by people from Tanzania, Ethiopia, Kenya, United Kingdom, FAO. All papers concentrated on the theme of how to improve livestock production in Tanzania.

Tanzania with about 12.5 million head of cattle, 6.5 million goats and 3.1 million sheep ranks third in livestock population after Ethiopia and Sudan among African countries south of the Sahara. Many factors mitigate against more effective utilization of this tremendous reservoir of animal protein. Many of these factors are socio-economic but others on which veterinary surgeons can have a more direct influence include improved methods of husbandry and production and disease control.

The 31 papers presented covered a variety of topics and the proceedings will be published in due course giving a full account of all papers and discussion. Topics covered included improving animal production by improved efficiency based on adjusting production systems to comply more closely with consumer preferences and finances by tighter control of health and production. Attention was drawn to the fact that this depends on gathering and the correct utilization of information. The

need for tighter disease control was stressed and was covered in a variety of papers on specific diseases.

There was considerable discussion on the provision of veterinary services for Tanzania, attention being drawn to the fact that all veterinary services are entirely government supported and that in the present economic climate, it would be necessary for the farmers themselves to shoulder some of this burden. Possibilities of changes included setting up of private practice, subsidized work for veterinary surgeons working through farmers' co-operatives etc.

The recommendations drawn up at the end of the conference indicated the concern felt by all members present and included such matters as land use plan policy to include control of livestock movement to be implemented forthwith; continued farmers education to implement modern methods; consideration to be given to the formation of farmers co-operatives for delivering veterinary services; intensive small

stock farming to be encouraged to boost protein sources; control of drug distribution to reduce resistance and the need for great investment in the livestock sector.

The social side of the conference was well catered for with a reception being provided by May and Baker (East Africa) and a conference dinner on the final evening.

As with all conferences the social gathering was important for making new acquaintances, renewing old acquaintances and discussing common problems.

The Chairman of the Tanzania Veterinary Association and his organizing committee are to be congratulated on yet another very successful conference in Tanzania and publication of the proceedings will be another step forward in providing first hand information of problems and possible solutions in Africa.

J.T. Blackburn
PRESIDENT CwVA

Range chickens are subject to worm infestation

Backyard chickens or, as they are often called, range chickens, are subjected to a wide range of worm infestations. They eat many of the intermediate hosts of a variety of helminth parasites, among these are snails, flies, dung beetles, earthworms and grasshoppers.

One case of gapeworm infestation was referred to the Manzini Clinic. It was a hen that was gasping for breath and shaking her head. There were no nasal or lacrimal discharges and no worm eggs were found on a fecal examination. The hen was bright but very thin. Obviously there was little time for eating between gasps for breath. Examination of the larynx and pharynx revealed no evidence of foreign bodies or growths.

A tentative diagnosis of gapeworm infestation (*Syngamus trachea*) was made. One half of a ml. of levamisole was injected into the breast muscles. The following day there was a marked improvement, the gasping had stopped and the hen was eating and drinking. A complete recovery quickly followed. Source: Swaziland Newsletter March/88. Swazir's name not given.

New rep

Dr. S.P. Kamwendo of Malawi is now the Regional Representative for the East/Central/Southern Africa Region. He is also the new CwVA Council Member for Malawi. Dr. Kamwendo succeeds Dr. S.J. Ndaomba, of Malawi's Natural Resources College in Lilongwe, in both of these positions.

Dr. Kamwendo's address is: Malawi Veterinary Association P.O. Box 143 Lilongwe Malawi.

Ugandan expresses thanks

The following paragraph is from an August/88 letter from Dr. John Mukibi, President of the Uganda Veterinary Association.

QUOTE: "In conclusion, I would like to inform our sister associations that our country was literally devastated, during the decade preceding 1986, in all aspects and the UVA was no exception. We are now, slowly but surely, recovering. We are very much indebted to some veterinary associations, who showed much sympathy to us and actually assisted us during our time of greatest need."

Report on Ivomec use in elephants

As the result of an elephant cull in the Gona-rhe-zhou National Park in the September 1986 approximately 70 elephant calves were captured and "domesticated" on a local game ranch adjacent to the park. These were not treated with an anthelmintic at capture and therefore they were inducted into the boma with their normal parasitic burdens. They were fed horse-cubes, mopane and cane tops and allowed out to graze/browse during the day.

After some 6 weeks it was noticed that they were not thriving as well as expected and some (especially the smaller ones) had developed diarrhoea. Faecal samples were analysed at random and throughout the six samples taken we consistently found 3-5 strongyle eggs per microscopic field. It was decided that treatment with an anthelmintic would be desirable. The drug used would need to be easily applied, low volume, highly efficacious against strongyle parasites and with a sufficiently wide therapeutic safety margin to allow for inadvertent overdosing should our guessing of the weights prove inaccurate.

After due consideration it was decided that IVOMEc injectable (ivermectin 1 per cent m/v) would be used as it fulfilled our requirements, especially as the dose volume is 1ml/50kg. Using this dose rate we computed the dose as being the following:

AGE	Approx Wt	Dose of IVOMEc (mls)
18 mths	150 kg	3
2 yrs	200 kg	4
2.5-3 yrs	300-350 kg	5

Two very small and thin calves were given 2 mls. and one large calf approximately 3-5 yrs was given 7 mls. All injections were given in the gluteal muscles using a 15 gauge ½" needle and an Ultrasept 30 ml vaccination syringe capable of delivering up to 5 mls in graduations of 1 ml.

There were no side effects noted in any of the calves so treated and the diarrhoea resolved within 2 days of the treatment. A further 6 random faecal samples were analysed using saturated salt solution for flotation and 2 samples were found to contain a maximum of 2-3 eggs per 10 fields examined, with the remaining 4 being free of eggs.

The common internal parasites of elephant are Quillonia and Mussica spp. of strongyle (resembling equine strongyles but slightly shorter) and the throat bots known as *Platy cobboldia loxodonta*. The aim of the treatment was to remove the large burden of Quillonia and Mussica parasites from the large intestine and no attempt to evaluate the efficacy of Ivomec against the throat-bots was made.

In summary we feel that the drug Ivermectin (Ivomec-MSDAGVET) in a 1 per cent solution and administered at the recommended dose rate of 1 ml/50 kg is an effective, convenient and safe anthelmintic for use in elephant calves.

Authors: P.R. Trembath and J. Nyika
P O Box 191 Chiredzi

Source: ZVA News Dec/86-Feb/87

Prevention in Zimbabwe

The April-May/88 ZVA news reported that in Zimbabwe, during the month of April 1988, vaccinations for 'Foot and Mouth' disease numbered 184, 474; for rabies 25,776; and for anthrax 40,639.

New clinic receives assistance

In late 1987, while attending the 5th Tanzania Veterinary Association Scientific Conference in Arusha, a group of U.K. veterinarians delivered some urgently needed items to Drs. John Nyange and Adam Mbise of the new clinic. These items included disposable syringes, needles, gloves and books and were from the "Book, Journal and Small Items" program of BVA's Overseas Committee. These items are small but, as all our readers know, essential for any clinic. This was but another example of the burgeoning spirit of mutual concern and creative partnership that is spreading among veterinarians throughout the commonwealth. The CwVA News is proud to carry a photo of some of those individuals who took part in this small but important event.



The photograph shows the two - John Nyange (right), the officer in charge, and scientific officer Adam Mbise - with some of the members of the group at the handing over (from left): Geoff Oliver, Leslie Barker, Patrick Smalley, Don Ricketts, Charlie Fraser, Roger Fox, Jim Needham and Denis Nicholson. The party also visited the VI Centre and saw the facilities.

Uganda Veterinary Association

There are about 500 veterinarians in Uganda, 300 are members of UVA. The majority of these veterinarians are employed by government, including the University, but a few are employed by parastatal organizations, private companies and drug companies.

The UVA had been inactive since 1976 due to the turmoil and upheavals that bedeviled this country for over a decade. Nevertheless, the UVA is a member of the CwVA, and the World Veterinary Association. In our attempt to revive the UVA, a general meeting of the UVA, the first in a decade, was held in December 1986, during which various problems facing the Association were discussed and strategies laid down for revival of the Association. The meeting was well attended and the following Executive Committee was elected for a 2 year term:

President: Dr. John Mukibi

Vice President: Dr. S.E. Onyait

Secretary: Dr. C.A.L. Kudamba

Assistant Secretary: Dr. J. Tulyahikayo

Treasurer: Dr. K.A.N. Rwebembara

Assistant Treasurer: Dr. J. Nuwagaba

Committee Members: Professor G.Z. Syonyoga

Dr. K. Onekalit

Dr. Margaret Makuru

During that one day meeting, which was opened by Dr. S.C. Masaba then Minister of Animal Industry and Fisheries, the following papers were presented and discussed:

1. "Self Employment in the Veterinary Profession" by Dr. A.O. Isyagi, Livestock Consultant, Agricultural Secretariat, Bank of Uganda.
2. "The Distribution of Classified Veterinary Drugs and consequences of their misuse" by Dr. E.X. Kitakule, Assistant, Commissioner of Veterinary Services.
3. "Chemical Residues in Animal Products" by Dr. J. Opuda, Head, Department of Veterinary Public Health and Preventive Medicine, Makerere University.

We were honoured by the presence at our meeting of two guests namely:

Professor Alistair Steele-Bodger, Professor of Veterinary Medicine, Cairn's College, Cambridge and Dr. M. Creek, a Veterinary Consultant based at the FAO Investment Centre, Rome.

Both visitors were on an FAO Consultancy Mission for the Improvement of the Livestock Industry in Uganda. Dr. Creek addressed the meeting on the proposed World Bank Project to assist Veterinarians in Private Practice.

The UVA Executive Committee has since elected an Editorial Committee to start a quarterly veterinary newsletter. Four regional committees of the UVA have been formed.

The UVA held a second annual general conference in November 1987, during which the guest speaker was Professor A. Manzoon, Professor of veterinary reproduction at the Faculty of Veterinary Medicine, Makerere University and also Chief Technical Advisor to the FAO/UNDP Project on "Continuing Veterinary Training and Extension Services to Farmers for Increased Livestock Production." He addressed the meeting on that project.

A well illustrated paper was presented on "The role of Leucocytes in Trypanosomiasis" by Dr. Ojok-Lonzy of the Department of Veterinary Pathology, Makerere University.

Source: Dr. John Mukibi

The address of the Uganda Veterinary Association is:

P.O. Box 16540, Kampala, Uganda
Dr. Mukibi's personal address is:
Faculty of Veterinary Medicine
Makerere University P.O. Box 7062
Kampala, Uganda
KAMPALA UGANDA.

Did you know

Small-scale farmers in the communal land area of Shurugwe in Central Zimbabwe were the first to participate in the CSC's new diagnosis and design approach to agroforestry problems. The course aimed to highlight the balanced use of natural resources and the environment in rural development. Attending the 5-week training course (March-April 1988) were agricultural scientists, foresters, and social scientists from six Commonwealth countries in the East and Central African region.

The trainees, who were welcomed by the local farmers, spent the first part of the course getting to know the local farmers and acquainting them with the idea of the project. With the assistance of resource people from the School of Development Studies of the University of East Anglia, Agritex in Zimbabwe, ICRAF, and the Chief Conservator of Forests in the Nigeria Forestry Commission, the scientists gathered data on the area under study. The data — on soil types and use and soil erosion, on the names and uses of local trees, on crops and livestock in the area — was

gathered through interviews with farmers and natural resource investigation.

This was followed by analysis and interpretation. Potential agroforestry interventions were designed and appraised by scientists and farmers.

At the end of the training exercise, a workshop for senior Zimbabwean agriculturalists and foresters was held in Gweru to present the findings of the training exercise. These were well received by workshop participants with the result that CSC is planning a similar training course in a different location in Zimbabwe.

Source: Commonwealth Currents
June/88

If present levels of wood consumption are maintained without any replenishment, Zimbabwe will run out of wood in 15 years time (2003).

Source: Conrad Smith, CFTC forestry expert.



Seen at the opening of the Fifth Tanzania Veterinary Association Scientific Conference in December 1987 at the Arusha International Conference Centre are (on the left) The Hon. Jackson Makweta, M.P. and Tanzania's Minister for Agriculture and Livestock Development and (right) CwVA President Trevor Blackburn.

Redwater and Gallsickness vaccine report

A large Hereford operation with excellent management rears up to 200 calves a year and sells up to 100 bulls a year throughout Zimbabwe.

For many years calves have been vaccinated annually with Redwater/Gallsickness vaccine from the Veterinary Research Laboratory, so that they might be expected to have some immunity when moving to other areas after the sale. Following some problems in previous years, and on laboratory advice, vaccinations are done at between 5 and 7 months of age.

The last field cases of Redwater and Gallsickness on the farm occurred over 20 years ago. No cases have occurred in animals which were not inoculated, i.e. over one year old, except for the imported bull. (see below)

157 calves (W1 to W157) were inoculated on 9.11.87, with blood collected that day from the Laboratories.

26 calves (W158 to W185) were inoculated 11.1.88.

(Does that confirm that the management is excellent — 2 losses out of 185 calves born?!).

All inoculated calves are very carefully observed, temperatured if at all indicated and smeared if the temperature is elevated. Six calves developed acute infections. Normal one day, dead or so ill the next day as to die before treatment could be effective, all confirmed as Redwater or Gallsickness (*Anaplasma centrale*).

Almost all calves showed some reactions, some with quite high temperatures but continually eating, except for 71 which stopped eating with temperatures 40 to 41.9°C. When it was

either confirmed or it seemed obvious that Redwater was the cause they were treated with Imizol at 1ml/100 kg mass.

When it was probable that Gallsickness was the cause, Imizol was used at 2.5ml/100kg and in addition they were given Terramycin 100 at 8mg/100kg; all weights are accurately known. Many cases took five days for temperatures to return to normal. A lot of the cases were confirmed either by myself and/or the laboratories.

The most interesting aspects were the wide reaction times, anything from 5 days to 60 days for Redwater and 25 to 70 days for Gallsickness.

An imported bull, vaccinated at the University Faculty on 9.11.87 was returned to the farm after 56 days, following its confirmed reactions to the vaccine and when the temperature had been normal for over a week. Fortunately the owner continued to temperature the animal because after 64 days it threw a high temperature and smears read by both myself and the Laboratories confirmed Redwater.

There was no Redwater on the farm other than in the vaccinated calves and tick control is excellent so the infection was presumably a relapse or a premature breakdown to the vaccine. If it is postulated that this was a new infection, then the vaccine was not very effective. It took 5 days for the temperature to drop with supportive therapy only (Vitamin B. Complex, B12, Bykahepar).

No explanation for these reactions has been offered except to say that there might have been a stray tick off a truck going past. Why this year but not

for the past 20 years? If one tick can cause such a problem in a tick free vaccinated herd, what chance is there of any sort of control?

The cost to the breeder is obviously quite substantial. A conservative valuation for the calves lost would be \$6000. 20 bottles of Imizol and over 100 bottles of terramycin (no wonder there is a shortage!) plus B complex, B12 etc., add up to over \$3000, let alone Veterinary costs, and the breeders time and labour, and the extra feed as a result of having the calves confined in small paddocks close to where they could be watched closely and temperatured. Over \$12000.

Will this breeder be vaccinating this years calves for Redwater and Gallsickness? No way!

So when they are sold to other farms will they be especially sensitive to Redwater/Gallsickness? With no cases on the farm for 20 years there is hardly an enzootic stability situation. Unless of course, the disease is now reestablished on the farm as a result of the vaccine?

Anyway, with having to treat so many cases this year, what is the immune status of the treated animals?

With known virulent *Babesia* and *Anaplasma* around, do we dare try for enzootic stability, and if we go for enzootic stability would it not be nice if the buffins came up with a dip selective for *Rhipicephalus* and *Hyalomma* but not for *Boophilus*, or of course a resistant strain of *Boophilus*?!?! Source: ZVA News

Apr-May/88

Author: Dr. E.V. Cook of Chispitpe, Zimbabwe

Informative notes from Tanzania

First Epizootic of Sheep Pox

In Tanzania

A severe highly fatal first outbreak of sheep pox was recorded in Tanzania, (1979), notably in Northern part of the country. Results of field investigation pointed out that the disease entered the country from a neighbouring country—Kenya where the disease has been enzootic for several years. The disease which indiscriminately affected sheep and goats of all ages, claimed lives of many animals. According to information from stock owners, herdsmen, and personal observation, the morbidity ranged from 75 per cent — 100 per cent while mortality varied between 8 per cent — 60 per cent. Experiencing for

first time, the farmers were baffled and confused at this epizootic not knowing what to do to save the lives of their animals. Some sold part of their animals for slaughter and others decided to let the disease take a natural course.

Source: Tanzania Veterinary Bulletin Oct/82

Author: S. Shaka

The Tanzania Experience With Alkali Treatment Of Low Quality Roughages

From an economic and practical point of view the use of low quality roughages is necessitated by the scarcity of relatively high quality roughages: which is brought about by intensive

erale cropping occupying land at the expense of grazing and/or by the absence of adequate fodder conservation. In Tanzania the densely populated mountain areas are heavily cultivated and the feeding of maize stover and standing hay to ruminants during the dry season is a matter of necessity. Unfortunately such low quality roughages are characteristically of low digestibility and voluntary intake. Work on the improvements for low quality roughages with alkali treatments which has been done in Tanzania and elsewhere is reviewed. The experience which has been gained in Tanzania show that both digestibility and volun-

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Informative notes from Tanzania

from page 11

tary intake of maize cobs, maize stover, wheat straw and rice straw are improved. Both the dry method and the Modified Beckman Methods have been tested and in both cases improvements in nutritive value were obtained. For adoption by practical farmers the new Dip and Drain Method (DIP) is being developed for small scale farms and mechanized alkali treated silage making being for larger scale units.

Source: Tanzania Veterinary Bulletin Oct/82

Authors: J.A. Kategile, F. Sundstal, N.A. Urio, K. Kanyawana, E.M.I. Kiangi and Y.G. Mzihirwa

Dry Season Feeding Of Dairy Cattle In Tanzania

Ideally forage conservation in form of early cut hay and silage are practices of ensuring the availability of good quality roughages during the dry seasons. In developed countries the practices are now being adopted. Know how, capital and size of the farms are the major bottlenecks with holding the adoption of forage conservation. Besides conserved forages, drought resistant strains of herbage, field crop residues, agro forest trees and standing hay can be utilized to supply the bulk in the dry season. It is desirable to investigate the utilization of these in addition to the conventional forage conservation.

Source: Tanzania Veterinary Bulletin Jan/83

Authors: J.A. Kategile and N.A. Urio
Liveweight Loss
In the
Early Wet Season
Tony Goodchild

Cattle that have been grazed in the dry season on standing hay commonly lose liveweight (LW) when new green grass grows after the first rains. LW losses have been reported as being between 5 kg and 12 kg for each 100 kg of LW. In an experiment at Mpwapwa in 1975/76, bulls weighing 400 kg LW lost about 20 kg LW when the rains began. Sampled groups of these bulls were slaughtered in the six weeks before and six weeks after this LW loss. Weights of their empty bodies (LW minus the contents of the alimentary tract) did not decrease at the beginning of rains; the LW loss was due to a reduction in the weight of the contents of the alimentary tract alone. This loss (often called a loss of gut fill) may bias estimates of animal production and discourage farmers to sell on a LW basis in the early wet season. The bias is even greater if fasted rather than unfasted LW is us-

ed. The bias was practically removed, however, when LW was estimated from the cube of chest girth.

Source: Tanzania Veterinary Bulletin Jan/83

Author: Tony Goodchild
Nematode Otitis
(Parasitic Otitis)

Nematode Otitis is an infection of the external ear of cattle characterized by presence of thick, dirty gray or dirty brown, often foul smelling discharges in which are present numerous tiny Rhabditis species worms. The severely affected animal constantly shakes the head probably because of irritation due to the lesion and flies and consequently interferes with the animals' grazing and affected animals lose weight considerably. Though the external ear is the area commonly affected, some cases of middle and internal ear infection have been recorded and in some cases infection spreads from the inner ear to the brain causing meningoencephalitis from which the animal dies. (Jibbo, 1966; Anon, 1970).

Although the disease is called Nematode Otitis, the role of the round worm Rhabditis bovis (Kreis, 1964) and other Rhabditis species in the initiation and perpetuation of the ear lesion is yet not clear. The worms are free living in cattle shed soil and manure.

Field cases of Nematode Otitis were studied to find out more about the suspected causes of the disease as well as do a detailed pathological study of these cases and reproduce the disease experimentally. Nematode Otitis appears to be widespread particularly in the eastern regions of the country though there are some reports of its occurrence in the lake regions. From the pathological study of ear lesions we suggest that the role of the worms is to initially cause loss of top epithelial cover allowing bacteria present to gain entrance to the lower epithelium and subepithelium where they set up a necrotising inflammatory process the nature of which depends on the type of bacteria present. Subsequent to this development of the lesions, flies attracted to the ears by the smelly exudate cause further damage to the ear leading to a severe otitis.

Source: Tanzania Vet Bulletin Jan/83

Authors: M. Lweno, W.D. Semuguruka, J.R. Mhqma

Effects of Ambient Temperature On Reproduction

The effects of adverse high temperatures on reproduction show up when the body temperature of the cow

is abnormally high. The average length of the oestrous cycle is 21 days with a normal range of 17 to 24 days in the cow maintained at ambient temperatures between 5°C and 25°C. Adverse high temperatures especially if severe and prolonged, lengthens the oestrous cycle and reduces intensity and duration of oestrus. Like in malnutrition, high temperatures increase factors that make it difficult to detect oestrus in cattle. High temperatures increase embryonic mortality either by direct heat exposure effects on the embryo, or by arbitration in hormonal status of the dam. High temperatures above the thermoneutral zone of cow (28°C) drastically reduces conception rates, and conception rates as low as 20 percent have been reported. In cattle, the effects of high temperature on conception rates are exerted within the first 6 days after insemination and that effects of a decreased blood flow to the uterus that occurs contribute negatively to conception. Indeed a critical period when cattle reproduction is especially sensitive to high temperature is at the time of breeding. Thus farm reports reveal that fertility is higher during the cool season than during the hot season and that during hot seasons a greater percentage of cows come into oestrus only during the cooler hours of the night.

Climate effects on reproduction in cattle, due to moderate or low temperature are not marked. In climates with low temperatures, fertility is substantially influenced by other factors such as daylight, housing, confinement and management.

Source: Tanzania Vet Bulletin Apr/83

Authors: F.O.K. Mgongo, F.S. Chauhan, B.M. Keesy

Did you know

It is noted that back in 1976, Commonwealth veterinarian and author, Kenneth W. Aspinall, mentions the CwVA in his book, 'First Steps in Veterinary Science'. We quote from the preface: "The practical help of the Commonwealth Veterinary Association is also remembered with gratitude, as are those veterinarians in the United Kingdom who have read the script and made their comments."

An important letter for CwVA readers

Dear Sir:

SerVet - A Personal Contribution By All Veterinarians To The Hungry World

May I through the courtesy of your journal bring the following to the attention of your readers, both in the developed and developing countries.

There are farms, communities, villages, towns, laboratories, institutions and organizations in developing countries which need the services of veterinarians to improve livestock production. The farms can be in Malaysia where small farmers rear cows to supplement their income from the sale of milk at a dairy cooperative. Veterinarians are not readily available to help these 'dairy' farmers. It can be a diagnostic laboratory in the Seychelles which requires a veterinary microbiologist to train their staff and upgrade diagnostic techniques. Or a village in the Himalayas of Nepal which requires a general practitioner to advise on goat/sheep husbandry and preventive medicine for their livestock. Or a veterinary college which needs someone to run a seminar and demonstrate a new technique.

Veterinarians working in developing countries for the United Nations, religious organizations, private foundations, government institutions, and others are playing an invaluable role in producing more meat by controlling disease and advising on better animal husbandry practices. There are however a sizeable number of veterinarians who wish to play their part in this international effort but cannot find a suitable vehicle to channel their charitable outlet. Many distinguished and able veterinarians, veterinary parasitologists, diagnosticians, nutritionists, or educators retire from the world once they finish their terms of employment or work. A large number of general practitioners in the private sector do likewise. Young veterinary graduates have difficulty identifying places which want their assistance. Many would wish to contribute their knowledge towards increased animal production. They cannot do so because existing institutions and structures do not accept them or regard them as sufficiently competent. In addition, existing procedure and bureaucracy are discouraging.

The purpose of this communication is to launch a scheme which will allow every veterinarian to personally give veterinary service to a developing

country, and do so with minimal fuss. It will supplement existing international veterinary assistance.

THE PROPOSAL:

The proposal is to have a scheme to put the veterinarian (who wishes to do charity work) with the recipient country (which wishes to have the service of a veterinarian). It calls for each party to meet the other half-way. The veterinarian will not only give his service free but also meet the cost of his international travel to the developing country. In return, the recipient (developing country) contributes or pays for the food and lodging of the visiting veterinarian. The scheme is sufficiently flexible to be varied by the parties concerned.

THE ARRANGEMENT:

This international veterinary arrangement is to be called SerVet (Service by Veterinarians). SerVet will operate from Singapore, free of charge, and on a non-profit basis.

A veterinarian who wishes to go to a developing country to help will register his intent with SerVet. He should indicate to SerVet the area of veterinary contribution he wishes to make, and the duration of his stay in the developing country. Similarly, communities, villages, institutions, farms, and other organizations in developing countries wishing to have the services of veterinarians should register with SerVet. The recipient parties should indicate to SerVet the type of veterinary assistance required, and the extent they can meet the food and lodging of the visiting veterinarian.

A list of participating veterinarians and recipient parties is compiled. From the list, SerVet will put both parties together, and leave the parties to cor-

respond and work out details of their arrangement.

The profile of the veterinarian will be a person who can afford to pay for his international travel (and possibly also accommodation and food), and is able to spend between four weeks to a year in the country. He is prepared to rough it out in spartan accommodation and on simple meals. To reduce cost of air travel, he can time his assignment in the developing country with his overseas travel.

Veterinarians in developing countries have an equally important role to play in SerVet. They bring SerVet to the notice of all concerned. Veterinarians in developing countries are in the unique position of knowing what is happening at the farm, village or provincial level and helping in the identification of the type of assistance required, and even writing to SerVet on their behalf.

The concept of SerVet was presented and accepted at the Commonwealth Veterinary Association Regional Meeting held in the Solomon Islands on 18 June 1988.

SerVet fills a niche for veterinarians who wish to make their personal contribution to the international community in a satisfying and meaningful way. It will be in a way in which they know best, and in which they dedicate themselves from childhood and throughout working life i.e. to personally attend to the well-being of their patients, and, through their patients, the well-being of mankind. I am confident the response to SerVet will be good.

May I invite those who wish to participate to write to: - C.H. Giam, SerVet, c/o 402 Dunearn Road, Singapore 1128, Republic of Singapore.

Yours faithfully
C.H. Giam, BVSc, MRCVS

For info on
Pan - Commonwealth
Conference
see page 47

Royal Veterinary College celebrates 21st

This past April (1988) saw the 21st birthday of RVC's MSc postgraduate course in Animal Health. It was marked by a four-day reunion, which combined social events with a scientific meeting. Over 50 past students, former staff and visiting lecturers renewed old acquaintances and made new ones.

The first students were admitted to this course in 1966. In the last 21 years nearly 200 students from over 45 countries have passed through a highly individual tailor-made year of postgraduate training. Through all this time the course organizers have endeavoured to provide advanced training for veterinarians working in the field of animal production in both the developing and developed countries. The course has adapted and will continue to undergo constant adjustment to meet the needs and priorities of the students, the changes and needs of the countries they will return to and the changing face of veterinary medicine in the world today.

During the reunion college staff,

visiting lecturers and fifty past students from more than fifteen countries came together on the Hawkshead Campus in Hertfordshire, over the four days 8-11 April, to celebrate the twenty-first birthday of the MSc in Animal Health Course run by The Royal Veterinary College.

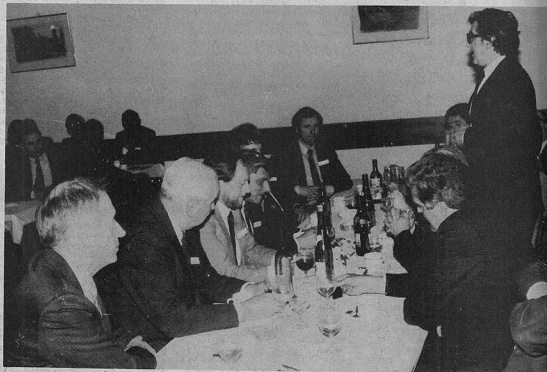
The reunion took the form of a scientific meeting with papers being given by ex-students and past and present course lecturers with anecdotes from previous classes and social events. Guests included previous course directors, chief veterinary officers and directors of laboratories and institutes visited by the students as part of their course work.

Professor J.E.T. Jones who had directed the course for 18 years, opened the scientific part of the meeting by reviewing the work of the Department of Veterinary Medicine and Animal Husbandry, in particular his own work on ovine mastitis. Dr. Emile Massanat, Ministry of Agriculture, Jordan, expanded on this subject with a talk on

Pasteurella haemolytica mastitis in sheep, an important syndrome which has hitherto received little attention.

Professor R.M. Barlow, RVC, addressed his audience on a matter of topical interest in Britain, when he talked on slow viruses and bovine spongiform encephalopathy. New technology and its application to veterinary science was considered by Dr. R.G. Gilmour, AFRC Institute of Animal Physiology, who talked on recombinant gene technology; Dr. P.L. Roeder, CVL Weybridge, described the application of biotechnology to the diagnosis of animal disease, and Dr. D.G. Whittingham, MRC Carshalton, the application of recent technologies in reproduction. The subject of animal reproduction was considered further by Dr. M.J. Meredith, Cambridge Veterinary School, who described recent developments in pig breeding, and from the RVC, Dr. P.J. Goddard, who outlined recent advances in ruminant breeding, and Dr. H.L. Williams, who

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Alumni of MSc Animal Health Course (RVC) during one of the 21st Anniversary after dinner talks.

UVEC can put you in the mainstream

Are you out of touch, out of date or needing a refresher? A letter or phone call could be all you need to put you back in the mainstream of veterinary education. That's all it takes to make direct personal contact with the library of self-instructional programmes provided by the Unit for Veterinary Continuing Education (UVEC).

Veterinary practitioners know that keeping up to date is essential in a profession where advances are continually being made in techniques, technology and the treatment and prevention of disease. They have a need for a wide range of such information in a readily accessible and easily assimilated form.

In direct response to this need, the UVEC was set up in June 1980. Generous gifts were received from far-sighted organizations who immediately realized the importance of such an initiative. They included the Leverhulme Trust, Royal College of Veterinary Surgeons (RCVS) Trust, British Veterinary Association (BVA) Trust, British Small Animal Veterinary Association (BSAVA), Society of Practising Veterinary Surgeons (SPVS) and the RVC Alumnus Association together with Lloyds Bank, the Thomas Lilley Memorial Fund, Roche Products and the Shell International Chemical Company. From August 1983 to 1986 the Unit also received an Academic Initiatives Award from the University of London.

Almost all of the 75 programmes made by the Unit have been funded by outside bodies with an interest in continuing professional education of veterinarians and/or nurses. The sponsors are all listed in the catalogues, but special mention should be made of the BSAVA, Horserace Betting Levy Board, Lloyds of London, SPVS Educational Trust and a host of pharmaceutical companies which have funded the UVEC's programmes. Pedigree Petfoods has been very supportive since 1974 and has funded printing of the Small Animal and Veterinary Nurses' Catalogues. Daphar Veterinary Ltd. has provided an excellent video camera and U-matic recorder which has made location filming possible.

The Unit is now in its eighth year. Located on the first floor of The Royal Veterinary College, London, it is a lending library of audiovisual material for use by a wide audience of veterinary surgeons in practice, veterinary students, veterinary nurses, assistants and those in related professions. It is an established international success in continuing education and through

distance learning. Enquiries now come from all over the world; UVEC programmes have been used for teaching government veterinarians in Sweden and the Netherlands and requests for programmes are regularly received from many sources. A number of United Nations Development Project Managers in third world countries have also purchased programmes.

The Unit has been nominated for acceptance as the European Centre for Veterinary Distance Learning (ECVDL) which will coordinate the use of modern methods of communication technology to disseminate distance learning materials to veterinarians in all member states via the postal system and by satellite if sufficient funding becomes available. The UVEC is a founding member of SPACE (Satellite Project for Adult and Continuing Education) which will link organizations and individuals right across Western Europe.

Since January 1985 the Unit has organized a number of audioconferences (discussion by telephone between different practices). Thanks are due to commercial companies who have sponsored audioconferences over the past two and a half years. Given more staff, the Unit would like to expand audioconferencing and to make good use of the Olympus satellite in the future.

Director Dr. Jenny Poland was confident from the outset that the Unit's library would fill a gap in the provision of continuing professional development for veterinarians. She has achieved her ambition of making it representative of the whole of the British veterinary profession as authors of the Unit's programmes come from all over the UK, from general practice, all the British

veterinary schools, institutes, Scottish agricultural colleges and from the Ministry of Agriculture Fisheries and Food (MAFF). Her only regret is that to date, lack of funding has prevented greater expansion.

The Unit's funding is diverse, most since August 1986 comes from the RVC and from sales and loans of audiovisual programmes, with smaller grants from the BVA, RCVS Trust, the BSAVA and the SPVS, whose moral and financial support is vital.

With time at a premium, not just for the Unit's staff but also for its target audience, traditional means of study can become difficult, it can even be a problem knowing where to start. The UVEC catalogues allow you to find your topic quickly. They give details of the 240 titles held in the library from which you can choose with ease the specific area where you need an update or refresher. All are available on loan for a small fee and copies of 75 titles can be purchased outright. Many titles are presented as audiotapes, illustrated by slides and or workbooks, others consist of audiotapes plus radiographs or audiotape alone. All those made by the UVEC have an extensive workbook including a self-testing section.

All tastes are catered for, small and large animals, from reptiles to cattle, from basic programmes for the rusty to advanced programmes for the specialist. Certain UVEC basic programmes are suitable for veterinary nurses (and for students as refreshers), here again they can be used to sharpen skills and relearn information while providing an excellent source of data for examination preparation. June 1987 saw the publication of a Veterinary Nurses' Catalogue containing 50 titles

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Veterinary College celebrates

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reviewed his work on the use of melatonin to modify the breeding season of sheep.

Mr. R.N. Martin, Deputy Director of the State Veterinary Service, Northern Ireland, gave a thoughtful paper on the future of State Veterinary Services and Mr. David Kyle, MAFF, took an aspect of this subject further when he talked on state control of notifiable disease. Another veterinarian from the Northern Ireland Ministry of Agriculture, Mr. George McIlroy, presented an epidemiological study in his paper on abattoir pathology data.

Four papers were concerned with

animal health and production in Africa. Dr. P.R. Barrowman, RMB Animal Health Ltd., gave a paper and showed a film on trypanosomiasis and Dr. A.D. Irvin, Overseas Development Administration, talked on advances in the control of tickborne diseases. Dr. Tony Wilmore, RVC, presented his work on fertility and reproduction of the Galla goat in East Africa and Dr. Lazarus Tekdek, Ahmadu Bello University, Zaria, discussed his survey of enteric pathogens infecting young calves in Zaria, Nigeria.

Source: Communication from RVC June/88

Objectives of BVA Overseas Association

Since 1981 the British Veterinary Association has been doing what it can to help developing countries short of hard currency by responding to specific requests for veterinary books and equipment. Small amounts of money, plus books and items of equipment, are donated to the BVA Scheme by individual members of the profession.

As a result of this, and the increasing belief that the world is getting smaller, there is a feeling that veterinary surgeons throughout the Commonwealth have a unique chance to come together for the betterment of animal welfare.

In September 1987 the BVA Overseas Association was formed, its main objectives being:-

- (1) To have two meetings a year, one at BVA Congress and one at another venue in the Spring. (There will be a meeting in Edinburgh at the Centre for Tropical Veterinary Medicine on Friday 13 May 1988).
- (2) We intend to provide a basis for continuing professional development for those abroad; and hope to persuade organizations such as ODA, FAO, VSO, etc., to include the cost of video/audio tapes in their contracts.
- (3) To maintain a list of members of this Association with expertise in overseas countries, who are prepared to assist colleagues going abroad.
- (4) To monitor and extend the books and equipment scheme.
- (5) Twinning - a pilot scheme has recently been launched between some BVA Divisions and Commonwealth

countries. We shall do all we can to stimulate an arrangement for 'seeing practice' in the UK for overseas veterinarians and visa versa.

(6) To liaise with organizations involved in overseas activities, e.g. Centre for Tropical Veterinary Medicine, Edinburgh.

(7) To support as best as possible the World Veterinary Association and to get the Overseas Association to assist in the formulation and presentation of our points of view.

(8) To maintain liaison with the Commonwealth Veterinary Association, and to circulate their "News" (twice yearly) to our members.

(9) To do what we can to stimulate overseas employment through contact with FAO, WHO, ODA, VSO, etc..

(10) To maintain an input of overseas affairs at BVA Congress.

There is a small annual subscription of 3.50 pound per head. This is arranged so that 3.00 pound is donated to the Books and Equipment Scheme, and 50 pence allocated for administrative costs, such as postage.

The pilot twinning project got underway in November 1987, and BVA Divisions have been twinned with Commonwealth countries as follows:

- Association of State Veterinary Officers - Malawi
- British Equine Veterinary Association - Kenya
- Goat Veterinary Society - Bangladesh
- Lakeland Veterinary Association - Sri Lanka
- Mid-West Veterinary Association - Zimbabwe

- North of Ireland Veterinary Association - Malaysia
- South East Veterinary Association - Swaziland
- Southern Counties Veterinary Association - Caribbean
- Western Counties Veterinary Association - Tanzania

The main objectives of the scheme are:

- (1) The establishment of professional and social relationships for the furtherment of veterinary knowledge and social understanding.
- (2) To foster and facilitate the movement of veterinary students and graduates from one country to the other.
- (3) To develop the Books and Equipment Help Scheme.
- (4) To visit each others countries for professional and social benefit and in particular to attend congresses and conferences.
- (5) To stimulate the development of personal relationships. The Subcommittee feels it is important to stress that this should be a two-way and equal relationship.

It is hoped that the books and equipment scheme will also be further developed within the twinning framework. To date we have sent books and equipment to: Bangladesh, Botswana, the Caribbean, Kenya, Lesotho, Sarawak, Sri Lanka, Tanzania, Transkei, Vanuatu, Zaire, Zambia and Zimbabwe.

Source: M.L. Teale Chairman, BVA Overseas Subcommittee

UVEC can put you in the mainstream

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covering subjects from anatomy, anaesthesia and bandaging to infectious and parasitic diseases, radiography, restraint and surgery. Titles such as 'Monitoring General Anaesthesia in the Dog and Cat', 'An Introduction to Circulatory Physiology', 'Radiography', 'X Ray Film Faults' and 'Specialized Bandaging Techniques' are all titles made specifically for veterinary nurses, or primarily with them in mind.

There are titles of interest to laboratory animal handlers, doctors and Environmental Health Officers concerned with zoonoses. Lay audiences can enjoy the general programmes and these are often used by vets to illustrate their talks, for example to groups of farmers, members of pony clubs or dog breeders associations. Examples of these titles include 'Care of

Small Mammals in Schools' and 'Behavioural Development in Puppies'.

For qualified veterinarians, titles at a basic level include audiotape-slide-workbook programmes on 'Physical Restraint in Horses', 'Worms in Horses', 'Care and Examination of Rams' and 'Copper Deficiency in Sheep' and two videotapes on 'Colic in the Horse'. (The first on diagnosis has a workbook with questions and answers.)

Veterinarians working towards a higher qualification can find a wealth of relevant material eg if studying for a Diploma in Veterinary Radiology. Actual copy radiographs with audiotapes on 'Radiography and Radiology of the Small Animal Spine' and 'Small Animal Oesophagus' are available, as are six other titles on radiography.

The Unit is currently working on a series of videotapes on surgery -

'Cataract Surgery in the Dog' has just become available, 'Surgery for Chronic Otitis Externa and Otitis Media' will be available in late summer and 'Minor Eye Procedures in the Dog' should be ready by the end of 1988.

The Unit is always open to suggestions for new work; the Director would be pleased to help make educational materials tailored to local needs - all that is required is a request for help coupled with a suggested means of funding the project. Why not contact the Unit with viable proposals?

Catalogues are supplied completely free. For these and any further information write to the Director, Dr. Jenny Poland, c/o The Royal Veterinary College, Royal College Street, London NW1 0TU.

The reindeer industry in Canada

by Gordon F. Godkin
Innisfail, Alberta

1985 marked the 50th anniversary of the arrival of the reindeer on the Canadian reindeer reserve. This area comprising 30,000 square kilometers on one of the most northern parts of the mainland was established by Federal Government ordinance. The reserve is bounded on the west by the Mackenzie River, on the north by the Beaufort sea, and on the east by the Anderson River. The northern part of the reserve is flat tundra plains with many lakes and ponds. There is a gradual transition from the open plains to increasing amounts of scrub willow and birch to the boreal forest zone on the south edge of the reserve. The average annual precipitation at Tuktoyaktuk is 16 cm. Resident caribou (*Rangifer tarandus groenlandicus*) had either been hunted to extinction or had so changed their migratory pattern that they were no longer accessible for the local people. The Federal Government decided to import reindeer to provide food and employment for native people.

Reindeer (*Rangifer tarandus*) have been domesticated for over 1000 years and are ideally adapted to Arctic conditions. This species was introduced into Alaska from Siberia between 1892 and 1902 after which time the Russians halted further exports. In 1929 the Canadian government purchased a herd of 3000 reindeer in Alaska for introduction to Canada. The reindeer selected were a larger strain that fawn a month earlier than the Lapland reindeer and the native caribou. Experienced herders from Lapland were hired to move the herd 2000 km overland to the new reserve. After an epic 5 year journey the herd arrived on the reserve in 1935. 2382 reindeer were delivered and, after the birth of 80 fawns that occurred a few weeks later, the number was well over the 3000 animals that Lomen Reindeer Company of Alaska had agreed to deliver.

Only 10 per cent of the animals were from the original herd, 90 per cent were born on the trail.

The original intention was to use the government herd for seedstock, and as the native people learned to become herders, to let them acquire reindeer to start their own herds. Over the years from 1938, a number of native-owned herds were started, but all were eventually returned to the government herd. The first two herds flourished until the owners and most of their families were drowned in a schooner accident in 1944.



Reindeer in a corral.

The other herds failed because of poor management or because the herds were too small or restricted to inland ranges. The native herders have observed that reindeer held on inland ranges, with no access to sea water, may develop spontaneous fractures of the spine or legs in late winter or early spring of the next year, a condition they refer to as "broken back".

Because of errors on the part of local managers and problems with straying, the herd numbers fluctuated widely. At one time the population exceeded 9000, but in 1967 it was fewer than 3000 animals. Herders from Lapland were hired for chief herders or managers but the major decisions were made in Ottawa and the difficulties in communication did not bode well for the reindeer project. The operation was never a financial success for the government because of the distance factor, losses from poaching, and the occasional poor manager. From a social standpoint it proved successful in that it provided jobs and meat to the local people during the difficult depression years, and it proved that Eskimos could adapt to reindeer herding as a lifestyle.

In 1974 the herd, numbering approximately 5000 reindeer, was sold to the chief Eskimo herder, Silas Kangegeana. Because meat sales to the local inhabitants were not adequate to provide a livelihood, in 1976 slaughter under Federal inspection was begun in order

to allow the meat to be shipped out of the Northwest Territories. Since 1976 more than 13,000 reindeer have been inspected at slaughter and the herd has grown to more than 12,800 animals.

Antlers in velvet were harvested for the first time in 1977. The velvet antler is sold to the Orient for use in traditional medicinal preparations. Grade A velvet antler is harvested when the velvet is very vascular and before the bony matrix hardens. The harvest date varies from year to year but generally the antlers from the males can be harvested between June 26 and July 4. The antlers of the females are suitable for an additional 2 weeks. The income from the sale of antlers is more than the income from meat.

The reindeer are managed on an open herding basis. With open herding, two to four herders on snowmobiles remain with the herd to prevent straying and predation, while allowing the animals to move freely over the selected area of the range. The animals are usually herded from October to late May, depending on snow cover. This system is opposed to that of close herding that was practised for many years and continues to be used in many areas of Lapland, where the herd is maintained in a close group. Under range conditions in northern Canada, close herding causes range damage and results in poor nutrition because the reindeer

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Wolves are the main predators

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cannot graze selectively. Wolves (*Canis lupus*) are the main predators, with barren-land grizzlies (*Ursus arctos horribilis*) being an occasional problem. When a kill is found, the herders try to hunt down the wolves before they have a chance to do more damage. Three or four wolves may kill up to 20 reindeer in one night. In recent years there have been only three or four attacks during a winter. Foxes and ravens manage to kill a few newborn fawns but are not a serious problem.

In June the herd migrates northwest on the Tuktoyaktuk Peninsula where they spend the summer. The peninsula has ample grasses and forbes for excellent summer grazing with good ocean beaches for the reindeer to escape insect harassment. Reindeer always feed facing into the wind in summer. If the wind were to blow from the southwest for many days the reindeer could move too far down the peninsula, then around the bottom of Eskimo Lakes and stray completely off the reserve. To overcome this the herd is kept under surveillance by aircraft every week or two. Stray groups are herded back to the summer range by helicopter.

The majority of the herd is corralled each year during the third week of June. At this time the antlers are harvested from the adults, surplus bulls are castrated, fawns are tagged with tags color-coded for the year of birth, and the annual count is done. Groups of 1500 to 2000 reindeer are collected from the range by a helicopter and herded to the corral where they are processed in much the same way as western range cattle were handled. A crew of 25 men can process about 150 reindeer per hour. Each year about 1500 bulls are castrated, 3000 fawns are tagged and 6000 adults have their antlers removed. Bulls will produce up to 7 kg of antler and the older females average about 2 kg. Removing the antler does not interfere with reproduction or the normal shedding of antlers, which occurs in November for the bulls and in May for the females.

Proceeds from the sale of antlers has made it possible to employ the latest management techniques such as remote sensing for range evaluation.

Landsat imagery and aerial photography were used with color codes on computer to produce a map of the vegetation cover on the reserve. In future years remote sensing will detail the areas that are being overgrazed and



Herding the reindeer into the corral.

the best quality range will show on the computer printout.

The slaughter of reindeer is conducted each year in November and/or February, depending on the location of the slaughterhouse. The slaughterhouse is mounted on sleds so it can be moved to an area where there is adequate grazing for 1500 to 2000 reindeer for the 2 or 3 weeks during slaughter. The slaughterhouse is set up on a tundra lake, the ice providing a level surface. Holes are cut in the ice to freeze posts in the corral. All refuse is easily cleaned off the ice with a front end loader and trucked away for disposal after the slaughter. The use of this type of slaughter facility prevents any damage to the tundra. Because there is 500 to 600 m of permafrost, water and sewer services have to be provided to residents and businesses of most northern communities by tank truck. These services can be provided to the slaughterhouse wherever it is set up.

If the slaughter is held in the Tuktoyaktuk area it must be done in late February because the ice road does not open until about Christmas time, and by then there is not enough daylight for a full work day. Slaughter at Inuvik can be done in November if the ferries are operating or the ice crossings are in at McPherson and Arctic Red. Because there are no approved storage facilities, the meat is shipped out by refrigerated trucks immediately after slaughter. The carcasses are trucked south for further processing before sale to the public. For the past few years the

processing has been done at Est 136, Lambco, Innisfail, Alberta. Most of the meat is sold to the restaurant trade in the larger cities of Canada and the United States.

Reproduction

The rutting season for the reindeer in Canada starts about September 10 and lasts for 3 weeks. By the time the rut is over, the bulls, which normally maintain 3-4 cm of fat over their hindquarters at the end of August, are so thin and bruised from fighting that they cannot be used for meat until March or April. The average annual pregnancy rate of females over 1 yr. of age is 99.5 per cent. The first fawn is usually born about April 1st, fawning starts in earnest April 10th, and is usually completed by April 30th, except for the occasional late fawn observed to arrive as late as June 24th. Most of the late fawns are born to yearlings bred as fawns. In a good growing year, up to 5 per cent of the female fawns may become pregnant. In some years, 95 per cent of the mature females will have a fawn with them at the June roundup. Adverse weather at fawning may reduce the number of live fawns to 50-60 per cent of the number of females. Predation is not an important factor in fawn survival because the herders are constantly on guard during the fawning period. The herd has grown at the rate of 15 per cent per year over the last 9 years despite a 13 per cent annual slaughter.

Health Problems

The most serious economic burden for the reindeer industry is that impos-

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Warble and nostril flies reduce production

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ed by parasites, especially the reindeer warble fly (*Oede magna tarandi*) and the reindeer nostril fly (*Cephenomyia trampe*). In Sweden it is estimated that these two parasites reduce production income by 15 per cent. Nearly all the reindeer have warbles, 200 *O. tarandi* larvae having been counted on some animals, while 75 to 180 are probably representative counts. Warbles appear to be particularly detrimental to fawns. Warble damage renders many hides useless.

Examination by the author at slaughter indicates that about one third of the reindeer are infested with *C. trompe* larvae and 15 would be a representative count. Limited trials with Spotton® (Bayvet Div., Miles Laboratories Ltd., Mississauga, Ont.) eliminated the warbles on treated animals when administered in late August. However due to the high cost of a roundup, it is neither possible nor economical to treat the herd routinely in the fall. Ivermectin® (MSD AGVET, Pointe-Claire, Quebec) administered

by injection in late February to a limited number of reindeer appeared to completely eliminate *O. tarandi* and *C. trompe* larvae from the treated animals. The development of a method of biological control such as the release of sterile male flies from aircraft could result in great benefit to the reindeer industry. The habit of *O. tarandi* flies of mating near physical features such as hummock or a tree would seem to lend itself to this type of control.

The only other herd problem encountered to date has been foot rot. It becomes a problem when the animals are held in the corral for any length of time. The infected foot becomes swollen, often breaking open between the claws or at the coronary band. Most reindeer recover without treatment, but they are more subject to predation if they cannot keep up with the herd because of lameness. Some reindeer develop a chronic lameness and a deformed hoof if the infection leaves a defect in the coronary band. *Fusobacterium necrophorum* is the on-

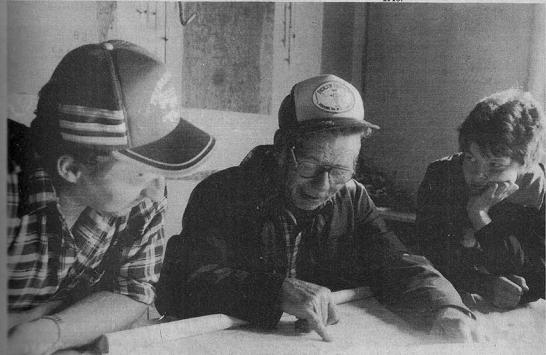
ly agent isolated from cases of foot rot in reindeer. Random blood samples collected from 50 to 100 reindeer at various times have been negative for *Brucella* titres and clinical signs of brucellosis have not been observed by the author.

The reindeer industry in Canada is alive and flourishing, though the numbers are small compared with over two million reindeer in Russia. Reindeer are ideally adapted to the Arctic environment and unless forced to do so by close herding or overpopulation, they will not overgraze the range or trample the tundra.

Source: Canadian Veterinarian Journal Dec/86

Reproduced with permission of Canadian Veterinary Journal

The author, Gordon F. Godkin of Innisfail in the province of Alberta, still has a deep interest in, and keeps informed about, this reindeer herd. For anyone interested in communicating with him, his address is P.O. Box 1468, Innisfail, Alberta, Canada T0M 1A0.



Commonwealth veterinarian and reindeer specialist, Gordon Godkin (centre), points out to a helicopter pilot where the reindeer herd was left.

Office bearers of Indian VA

The office bearers of the Indian Veterinary Association are Dr. G. Krishna Rao, President; Dr. S. Rangaraj, Vice President; Dr. S. Abdul Rahman, General Secretary; Dr. R.N. Patnaik, Joint Secretary; Dr. B.C. Ramakrishna, Treasurer.

The Indian Veterinary Journal, established in 1924, is the official organ of the Indian Veterinary Association. Its editor is Dr. V.S. Alwar and its associated editors are Drs. M.S. Jayaraman, S. Abdul Rahman, G.G. Bhaskar and V.D. Padmanaban. Address of the IVJ is 7 Chalmers Road, Madras 600 035, India.

Executive active

In October of 1987 Dr. S. Abdul Rahman, General Secretary of the Indian Veterinary Association, visited Hyderabad to address the Executive Committee of the Andhra Pradesh Veterinary Assoc. Dr. Rahman outlined the importance of the adoption of the Indian Veterinary Council Act in the State of Maharashtra. While he was there the AP Veterinary Assoc. organized a function to felicitate Dr. Rahman. There was also an opportunity at Hyderabad for Dr. C. Krishna Rao, President of the IVA and Dr. Rahman to hold discussions.

Later that month Dr. Rahman visited Bombay. This visit was in response to a call from the Veterinary College Students' Action Committee of the four colleges of Maharashtra and from the Executive Committee of the Maharashtra Veterinary Assoc. Dr. Rahman was briefed about the situation there in connection with the Maharashtra Veterinary Council Act. Dr. Rahman met and had discussions with Mr. K. Shivaramkrishnan, a Special Secretary of the Government of Maharashtra. He also met and had discussions with Dr. Sardeshpande, Dean of Bombay Veterinary College.

Dr. Rahman completed his executive duties for the month with a visit to Madras. There he had discussions with Dr. V.S. Alwar, Editor of the Indian Veterinary Journal. Dr. Rahman is one of four associate editors on Dr. Alwar's staff.

Source: The Veterinarian Nov/87

Bangalore Second National Congress of Veterinary Parasitology

The Second National Congress of Veterinary Parasitology was held on March 3rd, 4th and 5th, 1988 at Hotel Holiday INN, Bangalore. This was organized by the Indian Association for the Advancement of Veterinary Parasitology and the Department of Parasitology, Veterinary College, Bangalore. Over 100 delegates from all parts of the country and abroad attended.

The conference was inaugurated by Sri Siddaramaiah, Hon. Minister for Animal Husbandry, Dr. S.V. Patil, Vice-Chancellor of the Univ. of Agric. Science, released the Souvenir, Dr. S. Abdul Rahman, Organizing Secretary of the conference, welcomed the gathering and Dr. P.S. Srivastava, Gen. Sec. of IAAVP, proposed a vote of thanks. The President of IAAVP, Dr.

H.L. Shah, gave a keynote address. The conference was widely publicized, highlighting the parasitic problems in the country both in man and animal, especially with emphasis on zoonosis. The interesting feature of the conference was the large number of papers in the four different streams, which came for discussions. At the general body meeting the following members were nominated to the Executive committee as Council members and two more posts as vice presidents were created.

Two new vice-presidents: Dr. Jankhedhar, Bombay and Dr. B.V. Rao, Tirupathi. Executive Council: Dr. M.S. Jagannath, Dr. A.R. Gogoi, Dr. C.N. Pandit, Dr. Bhattacharayal. Editor IAAVP News Letter: Dr. S. Abdul Rahman.

Source: The Veterinarian March/88



Dr. S. Abdul Rahman (second from right) is seen meeting with Professor Dr. de Cueva (extreme left) and Dr. Antonio Borregon (second from left) in Madrid, Spain, in July of 1988. Dr. de Cueva is Secretary of the World Veterinary Association. Dr. Borregon is President of the Spanish Veterinary Association. Dr. Rahman, Organizing Secretary of the recent National Congress of Veterinary Parasitology, is Editor of the Indian Association of the Advancement of Veterinary Parasitology Newsletter.

Prestigious awards

In October of 1987 Dr. M.S. Swaminathan, renowned agricultural scientist and architect of India's green revolution, was the recipient of the first General Foods World Food Prize in recognition of his outstanding contributions to maximizing world food production. The prize, carrying a cash award of \$200,000 is funded by the U.S.A. based General Foods Corporation. It was initiated to fill a gap in the Nobel awards, which honor individuals in other disciplines, but not in agricultural science.

In December of 1987 Dr. Maheswar Mishra received the Watumull Award in Life Science. Dr. Mishra is Professor and Head of the Dept. of Animal Production at the Orissa University of Agriculture and Technology in Bhubaneswar, India. The Award, presented by the Watumull Foundation in Honolulu, Hawaii, recognized Dr. Mishra's outstanding and exemplary contributions in the field of Life Science. He is the only veterinarian to be so honored. Dr. Mishra is the founder and president of the Indian Society of Animal Production and Management. Source: Ind Vet J.

Generous gift

The affiliation fee, of India to the World Veterinary Association, has been paid by Coopers Animal Health of Berkhamstead in the U.K. In March of 1988, in Bangalore, India, Mr. McHardy, of Coopers Animal Health, handed the General Secretary of the Indian Veterinary Association, Dr. S. Abdul Rahman, a check of \$1000 US to pay the IAVA's affiliation fee to the WVA. When thanking Mr. McHardy, Dr. Rahman stated that Coopers' splendid gesture would greatly benefit the veterinarians of India.

Source: The Veterinarian March/88.

Project support

The European Economic Community is giving \$6,800,000 of aid to the Tamil Nadu sheeping breeding project. The project involves improving pastures and fodder crops, and disease prevention and genetic manipulation. As a result meat production in the State of Tamil Nadu is expected to go up by 700 tonnes a year during the life of the project, and within those ten years to reach an annual production level of 1,000 tonnes.

Source: Ind Vet J Oct/87.

Stephanofilarial dermatitis

Bovine stephanofilarial dermatitis is one of the most persistent skin diseases of cattle in India. It is a common malady in the eastern zone of the country where there is an increased occurrence of the severe form of the disease, particularly in the heavier milking crossbred Jersey cattle. The warm humid climate and heavy rainfall of the Orissa region favors the proliferation of the causative organism, *Stephanofilaria assamensis*.

There is an age factor in susceptibility to the disease. Calves under one year of age are not susceptible, cattle one to two years of age are somewhat susceptible, cattle three to six years old are more susceptible and those six to eight years old are the most susceptible. After eight years of age susceptibility decreases.

During the month of July, with the onset of heavy rains and an increasing fly population, this condition becomes a serious and growing problem. Initial le-

sions are small papules and occur at the site of fly infestation. The flies, in growing numbers, infest these initial lesions, which then increase in size and number and coalesce to form larger lesions. The irritation becomes intense and with constant rubbing the lesions gradually extend peripherally.

From November onwards, with a decreasing fly population, healing slowly begins with the formation of a thick crust of granulation tissue. This continues throughout the winter and by the end of February the lesions have become dry and quiescent.

Source: The Veterinarian June/87.

Authors: G. Pratap and S.C. Misra.

Editor's note: Quoting directly from the original article - "healthy cattle of the same age were comparatively more infested than the weak and debilitated ones". The editor wonders if that statement is correct or was it a typographical error.

Pasteurellosis in camels in India

Reported By R.R. Momni,
D.K. Pethkar, T.N. Jaiswal
and V.M. Jhala

College of Veterinary Science
and Animal Husbandry,
Gujarat Agricultural University,
Sardar Krishnagar Distt.
Banaskantha - 385 506

The prevalence of *Pasteurella multocida* in camels, has been reported. The occurrence of pasteurellosis both as flea transmitted camel plague caused by *Pasteurella pestis* and haemorrhagic septicaemia caused *Pasteurella multocida* have also been reported. Though the prevalence of pasteurellosis in camels in Arabian countries has been reported there seems to be no report on occurrence of pasteurellosis in India. In the present communication, an outbreak of pasteurellosis in camels is described.

An outbreak of the disease involving both sexes of camel with clinical symptoms of rise in temperature, swelling on the throat region with difficulty in breathing and sudden death, was reported from a village (Khardosan, Taluka Deesa of Banaskantha district in Gujarat State). Out of fourteen animals from a single owner in the village, eleven had died of the disease. Three camels have also been reported to have died suddenly after showing similar symptoms with oedematous swelling on the throat region, in the surrounding area of this village.

Blood smears were prepared from fourteen camels showing symptoms of infection from the adjacent village of Dharapda. The prepared slides were fixed and stained either with Field's stain or Leishman's stain. All the stained smears when examined under the microscope revealed small coccobacillary bipolar organisms suggestive of *Pasteurella multocida*. Postmortem examination of one camel which died of the infection showed acute congestion of the lungs with haemorrhagic spots on the spleen and alimentary tract. Lung and spleen impression smears prepared also revealed similar coccobacillary bipolar organisms.

Based on these observations, forty animals showing the symptoms were treated with "Vesadin 'M and B'" (Sulphamezathine sodium B vet C, 33% per cent) solution at the rate of 100 ml per animal intravenously. The dose of vesadin was computed on the basis of the literature of M & B as 15 ml per 50 kg body weight. All these treated animals recovered after the treatment.

Preventive measures were adopted in the village and also in the surrounding villages by vaccinating camels with haemorrhagic septicaemia (H.S.) alum precipitated vaccine (conventionally used for protecting cattle and buffaloes) at the rate of 5 ml subcutaneously. These measures prevented further spread of the

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Extracts from the Indian Veterinary Journal

The Indian Veterinary Journal is an extremely informative publication. The great majority of its articles are by multiple authors, and extensively covered are clinical, research and academic aspects of veterinary medicine in Asia.

From the Feb/88 issue (Vol. 65 No. 2) we have extracted the following fragments of information. For those, who might wish to pursue any of the subjects further, we have indicated the page from whence it came.

- In the absence of an effective vaccine, the control of mastitis in cows and buffaloes largely depends upon prevention of infection and on therapy of clinical cases. Mastitis therapy is still not very effective due to a multiplicity of causes and the development of resistance in causative agents. The indiscriminate and prolonged use of antibiotics, in the absence of drug sensitivity tests, has led to the emergence of resistant strains. The isolation and identification of the causative organism, and the determination of its drug sensitivity have become very important for effective mastitis therapy and for limiting the development of drug resistance. (pg. 98)

- Cure rates (for mastitis) in buffaloes are a little lower than in cows. This could be due to the fact that buffalo teats are longer, sometimes double those of cows. Thus it takes a longer time for the drug to reach the udder tissue in effective concentration, in the absence of proper massage. There also is extra loss of the drug due to more of it sticking to the longer teat canal. (pg. 102)

- Bovine lymphosarcoma/leukemia, though not an uncommon pathological condition in exotic cattle, seems to be rare in indigenous cattle and buffaloes. (pg. 111)

- India possesses nearly half of the world's buffalo population. The buffalo population in India has increased by 13 per cent as compared to 2 per cent increase in the cattle population. The buffalo, in spite of its potential role as producer of milk, meat and traction in many Asian and African countries, did not find its due place in scientific improvement till 1970. (pg. 133)

- Plenty of tree leaves are available in our country (India) throughout the year. Leaves, which could meet the demand for a reasonable amount of green roughages, if fed to the animals. Particularly in hilly areas and forest regions, these tree leaves are sufficient to meet the local need for green

forages. Moreover, sheep and goats in our country (India) are mostly dependant on tree leaves. (But information on the nutritive values of these various tree leaves is scarce.)

(In this study) about five kilograms of each of thirty-six (varieties of) tree leaves, in the same stage of maturity, were collected from different places. Results (of the tests conducted) showed that all of these 36 varieties contained more than 9 per cent crude protein, some of them contained as high as 23 per cent crude protein. Some were high in lignin while others were within the normal range. From the overall compositions, it was concluded that most of the tree leaves tested form a good source of green roughage, if they are free from any anti-nutritional factors. (pgs. 145 & 149)

- Sarcoptic mange is not an uncommon infection in rabbits of Kashmir. The economic losses encountered in this

disease are caused by loss of body weight, reduction in meat and fur values and mortality. (This study indicated that:) topical application of neocidol [diazinon], an organophosphorus compound, proved 100 per cent effective in controlling sarcoptic mange in rabbits within two applications at an interval of seven days, when applied at a concentration of 0.3 per cent. (pgs. 159 & 160)

- Sheep rearing is an important occupation of marginal farmers and small farmers in the drought area of Maharashtra State. It is the main source of income for members of the shepherd community. Gastrointestinal parasites, ultimately causing great economic loss, play a major role in the growth and production of their sheep. Gastrointestinal parasites are very common, due to the grazing and watering habits of these sheep.

Brucella melitensis

Brucellosis is a zoonotic disease and each Brucella species is known to have a definite host preference, and in this respect Brucellosis in cattle is primarily caused by *B. abortus*. However in areas where *B. melitensis* infection in sheep and goats is enzootic, cattle may acquire the infection from them. Since *B. melitensis* is more infectious and pathogenic to human beings, more people run the risk of acquiring this infection when a cow, because of its greater milk production, becomes infected with *B. melitensis*. Consequently a more serious health problem is created.

During the month of July, 1983, a veterinary surgeon, posted to a dairy farm, came to the Dept. of Microbiology at Jawaharlal Nehru Medical College in Belgaum, India, for an investigation of a pyrexia of unknown origin. Serological investigations were in favour of brucellosis as the probable diagnosis. On further probing, it was discovered that five more staff members, working at the farm, were having similar symptoms to the veterinarian.

The dairy farm belonged to a semi-government organization and was managed by qualified personnel. There were 160 cows, 500 buffaloes, 100 sheep and about 25 goats. These animals were taken care of by 60 attendants and a full-time veterinary officer. The sheep and goats were kept away from the cat-

tle, but had access to pasture reserved for the cattle.

During the investigation it was found that one crossbred jersey cow and two of the workers were infected with *B. melitensis*. That particular cow had aborted a seven-month foetus and those two workers had assisted barehanded at the autopsy of the foetus.

The available evidence was that the probable source of infection, for the cows, was the flock of sheep and goats. Hence it is emphasized that, when *B. melitensis* is present, no sheep or goats should be allowed on dairy farms. Source: The Indian Vet J. Oct/87. pgs 822-825

Pasteurellosis

from page 21
disease. No new case was reported either from the affected village or in the surrounding villages during the observation period of two months after vaccination.

The observations are suggestive of the fact that H.S. alum precipitated vaccine (conventionally used for protecting cattle and buffaloes) is also protective in camels against pasteurellosis and the causal organisms suspected for *P. multocida* may also be antigenically the same as the strain causing disease in cattle and buffaloes.

Source: Ind Vet J. Oct/87

WANTED

A Theme for A
Pan-Commonwealth Veterinary
Conference

Send in your suggestion

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NOTICE - IMPORTANT

Information for all CwVA Council Members.

THE TECHNICAL CENTRE FOR AGRICULTURAL AND RURAL COOPERATION

The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 at Ede-Wageningen. It operates under the Lome Convention between Member States of the European Community and the ACP States. CTA is at the disposal of the ACP States to provide them with better access to information, research, training and innovations in the spheres of agricultural and rural development and extension.

The ACP Group

Angola
Antigua and Barbuda
Bahamas
Barbados
Belize
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Rep.
Chad
Comoros
Congo
Cote d'Ivoire
Djibouti
Dominica
Equatorial Guinea
Ethiopia
Fiji
Gabon

Gambia
Ghana
Grenada
Guinea
Guinea Bissau
Guyana
Jamaica
Kenya
Kiribati
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Niger
Nigeria
Papua New Guinea
Rwanda
St. Christopher and
Nevis

St. Lucia
St. Vincent and the
Grenadines
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Solomon Islands
Somalia
Sudan
Suriname
Swaziland
Tanzania
Togo
Tonga
Trinidad and Tobago
Tuvalu
Uganda
Vanuatu
Western Samoa
Zaire
Zambia
Zimbabwe

The European Community

Belgium
Denmark
France
Germany (Fed. Rep.)

Greece
Ireland
Italy
Luxembourg

Netherlands
Portugal
Spain
United Kingdom

Many of the countries in the ACP Group are also members of the CwVA. Contacts with the ACP Group could be extremely useful and of mutual benefit to all concerned. If difficulty should be encountered in locating their representatives in any country, information could be obtained from their central headquarters.

The address is:

Technical Centre for Agricultural and Rural
Cooperation (CTA).

(ACP-EEC Lome Convention)
Postbus 380
6700 AJ Wageningen
The Netherlands

Some national association veterinarians



V.B. Goodoyal, Mauritius



Ahmad Mustafa,
B.H.J. Babjee, Malaysia



Monjurul Huq Bhuiyan,
Bangladesh



Ita Umo, Nigeria



At the 1987 CwVA Pan African Seminar in the Gambia are Laurent Choquette and Bert Stevenson of Canada.



Peter Msolla, Tanzania; William Amanfu, Ghana; Paul Gomwe, Zimbabwe



Jabula Dube, Swaziland



Benn Bell, Cayman Islands



Abdul Rahman, India



Ken Lameta, Western Samoa



Vice-President Bakary Touray
The Gambia



Keith Amiel, Jamaica

Some national association veterinarians



CwVA Australasia Conference April 1986. Left to right: Ahmad Mustaffa (Malaysia), W.J. Pryor (Australia), D.K. Blackmore (New Zealand), Eric Shortridge (New Zealand), Ng Cher Yew (Singapore), HO. Hon Fatt (Singapore), Yap. Teow Chong (Malaysia).



S.J. Ndaomba, Malawi



Maurice Isaacs, Bahamas



President Trevor Blackburn,
United Kingdom



Secretary-Treasurer
Jim Archibald, Canada



Lansana Kallon, Sierra Leone and Tom
Aire, Nigeria



D.D. Wanasinghe lights the
traditional oil lamp at the
inaugural ceremonies at
the 39th Annual Sri Lanka
Veterinary Convention.
The lighting of the lamp
marks the official opening.
Dec.85

Solomon Islands conference - success

Two of the Solomon Islands' conference papers have been received at the CwVA News Bureau. These were sent from Papua New Guinea, and, if they are representative samples, it is small wonder that the Solomon Islands' meeting has been described as a truly great success. The proceedings of this conference are to be published, and will include all papers given. For information on how to receive a copy of these proceedings and papers write to the conference chairman: Dr. W.J. Pryor, Galwiji, Pryor's Road, Scotsburn, RMB 141 Buninyong, Victoria, Australia 3357.

It is our pleasure to carry one of these papers in its entirety and the concluding portion of the other.

ANIMAL INDUSTRIES AND VETERINARY SERVICES IN

PAPUA NEW GUINEA

M.J. Nunn and Y.A. Yunamu

Papua New Guinea (P.N.G.) has an area of some 462,840 km² and a human population of about 3.5 million. Some 87% of its people live in rural areas, in a village economy based on subsistence agriculture supplemented increasingly by cash crops.

There is no accurate data on livestock numbers, especially for village pigs and poultry. A summary of various estimates of livestock numbers is given in Table 1. Estimates of the total production and value of production of livestock are few, and, owing to major gaps in data on numbers and productivity of village pigs and poultry, not particularly accurate. However, recent estimates suggest that the total annual value of livestock production is some K110-140 million, consisting of K40 million from formal commercial production, mainly from large, capital-intensive farms, and the rest from village subsistence and smallholder farming. (Anon, 1985; Goodman, Lepani and Morawetz 1985; Shaw 1985; Nunn 1987). The total annual value of production of both food crops (K350-450 million) and export crops (K300-350 million) is significantly greater than livestock's, and government policy and resource allocation reflects these relative values of production.

By a combination of geography, history, strict quarantine and good fortune, P.N.G. is remarkably free of major diseases of animals. (Anon, 1946; Anderson 1960; Egerton and Rothwell 1964; Nunn 1980; Nunn 1985). None of the Office International des Epizooties (O.I.E.) "List A" diseases occurs or

has ever occurred in P.N.G., and in all species nutrition and management constitute more significant limits to production and productivity than does disease. Thus the major emphasis of veterinary services is on preventive medicine, rather than curative, for all three subsectors: village subsistence, smallholder and intensive commercial. A major implication of this approach has been the significant involvement of animal health staff in animal production and livestock development, although recent changes may, unfortunately, tend to reduce this.

For many years, government veterinary services were provided nationally through one central Department, the Department of Agriculture, Stock and Fisheries (D.A.S.F.). After independence a policy of increased decentralization was adopted, culminating in the formation of 19 separate Provinces, each run as largely autonomous Departments. Most staff and many functions of the former D.A.S.F. were devolved to the Provinces, leaving the much reduced central Department, renamed the Department of Primary Industry, to guide and assist each of the 19 provincial Divisions of Primary Industry. Government veterinary services thus lost direct line authority over and responsibility for provincial animal health and production services. However, some direct controls were maintained through regulatory services such as meat inspection and stock inspection where gazetted inspectors continue to report direct to the central or national Department on technical matters.

The central or national Department was structured into various Divisions, including the Livestock Division. This Division in turn consisted of several Branches, including Animal Health, Animal Production, Livestock Training and Wildlife. In 1983 the Department's slaughterhouses and most of its animal production and research stations were formed into a parastatal company, the Livestock Development Corporation (L.D.C.), in accordance with government policy to privatize as many of its activities as possible. In 1984 the Livestock Training Section was assumed by the Training Division and in 1986 the Wildlife Section was transferred to the newly-formed Department of Environment and Conservation. These changes left the Livestock Division of the re-named Department of Agriculture and Livestock with two Divisions, Animal Health and Animal Production, under the direction of a

veterinarian as head of the Division. This revamped Livestock Division passed away in May 1987, when the Department undertook a major reorganization, based on support functions rather than the former industry of commodity based structure. This reorganization split animal health (which goes into the new Agricultural Protection Division) from animal production (which joins with crop production to form the Food Management Branch of the new Investment Division) both administratively and physically. This separation has, unfortunately, divorced animal health staff from staff working in livestock development and production, and a major effort will be required to ensure that animal health staff continue to lead and cooperate with production and development staff. There is already a tendency to see animal health staff outside the planning, development and production roles of the new Investment Division and primarily as "policemen" enforcing quarantine and disease control regulations in Agricultural Protection Division or "firemen" to be called upon after health problems occur. Veterinarians have played a significant role in livestock development and production in P.N.G., as elsewhere, and this role should continue despite organizational or institutional barriers.

Like most Pacific Island countries, there is a significant shortage of a digenous professional manpower, and the gap in manpower requirements is filled by expatriate employees on short term contracts. The efficient use of a scarce professional manpower (expatriate or indigenous) is possible only by developing strong supporting auxiliary or paraveterinary staff. In P.N.G. these staff include stock inspectors, meat inspectors, animal quarantine officers, and laboratory technical officers, who extend the surveillance, advice and assistance of animal health services to all 19 provinces of the country.

The number of veterinarians in P.N.G. peaked at 19 in 1970, and has declined since. The number and proportion of government veterinarians has declined. Of particular concern are the decreases in areas of full-time training, animal production, and laboratory services, all areas which have previously seen significant inputs from government veterinarians. As the number of government veterinarians has declined, numbers in both private practice and industry have increased, the latter

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Small number of professionals available

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largely as a result of the expansion of the commercial poultry industry. Throughout this period, professional veterinarians have been supported by a variety of auxiliary or paraveterinary staff. Prior to independence in 1975, most of these staff were well trained and experienced Australian diplomates with strong backgrounds in livestock. Since independence nearly all of these staff have left and have been replaced by less qualified and experienced P.N.G. officers, who have been given most of their livestock background by in-service training and on-the-job work experience. Veterinarians have contributed a major proportion of this training of indigenous auxiliary staff and this input must continue and expand if P.N.G.'s animal health services are to maintain their current capability.

The Concluding Portion of "Training of Indigenous Personnel for the Delivery of Support Services" For Animal Industries" By N.J. Nunn Future Strategies

The countries of the Pacific must rely on a small number of professional animal scientists and veterinarians to supply and coordinate support services for their animal industries. The range of activities required is no less than in developed countries, although the relative priorities given varies. A recent review of veterinary services in fifty-two countries (Blajan, Gee and Gimeno 1987) identified no less than 32 distinct activities in three broad areas — economic, social and public health — that are undertaken by government veterinary services. The only way that the countries of the Pacific can attempt to meet all of these responsibilities is by the use of auxiliary or paraveterinary staff such as livestock officers, stock inspectors, meat inspectors, quarantine officers and technical officers as outlined in the model described above.

The preliminary pre-service training and much of the specialist in-service training required to develop and support such auxiliary staff can be provided by a small training establishment supplemented by visiting lecturers or demonstrators from government Departments of Agriculture and commercial livestock producers. If one or two veterinarians were based full-time at such an institution to develop curricula and appropriate teaching

Table 1: Estimated Livestock Numbers

Species	1980	1985	1988
Cattle	127,000	111,600	100,000
Buffalo	2,000	2,600	600
Goats	2-6t	6-10t	10-15t
Sheep	2,800	4,500	8,600
Broilers (commercial) a	3.5m	8.4m	9.0m
Layers (commercial) a	120,000	180,000	200,000
Poultry (subsistence)	3.0m	1.6m	1.2-1.6m
Pigs (commercial) b	1,100	1,800	2,000
Pigs (subsistence)	1.5m	1.5m	1.5-2.0m
Deer (feral)	100,000 plus	100,000 plus	80-100t
Crocodiles (ranchd)	500 plus	33,500	36,000

a - annual production; b - number of sows; t - thousand; m - million.

materials, such an institution could also develop distance learning programmes and further stages to existing courses. Such an input to an institution such as the Livestock In-Service Training Centre (L.I.S.T.C.) at Lae or the Highlands Agricultural College at Mt. Hagen could lead to the establishment of in-service courses suitable for a variety of auxiliary staff from the countries of the Pacific.

A recent development along these lines is the introduction of in-service agricultural extension courses at the Highlands Agricultural College and the planned introduction of a Postgraduate Diploma (P.G.D.) programme in extension at the same College. Both courses are linked with the innovative programmes offered by Hawkesbury Agricultural College in Australia, from which visiting lecturers will contribute to both teaching and supervision of research for P.G.D. projects and possibly Master's thesis. The role of visiting overseas lecturers in complementing existing pre-service and in-service agricultural training institutions in the Pacific has not yet been adequately addressed by developed countries, aid organizations or even developing countries themselves. The potential impact of such a low cost input as the provision of temporary lecturers to augment existing training programmes in the Pacific is quite considerable (Holmes 1987, Nunn 1987) and deserves more detailed investigation. In many developing countries considerable emphasis has been given to the training of Animal Health Assistants (Anon 1985, Cheneau 1985, Anon 1987). These auxiliaries, are usually trained in a two or three year

tertiary programme to a level intermediate between that of stock inspectors (as defined above) and professional veterinarians. To date, this level of auxiliary does not appear to be used in the Pacific, though undoubtedly many of the better livestock officers and stock inspectors working in the region perform a similar function. In Papua New Guinea several positions have been created for "Animal Health Assistants" to directly assist field veterinary officers. Experienced and competent diplomates or graduates, with extensive in-service training in animal production and health are eligible for these positions. In addition, one diplomate has completed and another is about to complete a three year course in Australia to qualify for appointment to the new positions. This course is the Associate Diploma in Stock and Meat Inspection offered by the Queensland Agricultural College. Although Australia offers a large number of formal courses in the animal sciences (Campbell and Johnson 1985) none is offered specifically to train animal health assistants as defined in developing countries. The Associate Diploma in Stock and Meat Inspection covers many of the areas of training required by animal health assistants and could form the basis of an appropriate training course for such auxiliaries for countries of the Pacific, either in Queensland or, preferably, by a combination of training in Queensland and at a training institution (or institutions) in the Pacific. The culture shock and alienation of either alternative would be significantly less than that of students from the Pacific attempting

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Livestock in the South-West Pacific

Animal industries in the island states, which comprise Melanesia and Polynesia in the South-West Pacific, share a number of common features. The most critical of these is the absence of most of the major infectious diseases of animals. Nutrition and management are, in all species, usually the main limiting factors to animal production and animal productivity.

Prior to relatively recent European colonization, the domestic fowl, pig and dog were the species bred and raised by man. Islanders subsisted largely by hunting, gathering and gardening, supplemented by fishing except in the more remote mountain areas, such as the central highlands of New Guinea. Pigs and poultry largely coexisted with humans, and were not farmed so much as harvested when required. Thus the management of ruminants, the use of livestock for draught or transport, and many concepts related to the farming or management of pigs and poultry, are relatively recent technological introductions in most Pacific communities.

Source: Sol. Is. Conf. "Training of Indigenous Personnel for the Delivery of Support Services for Animal Industries" by M.J. Nunn.

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existing programmes for animal health assistants in Africa, Asia or the Caribbean on a full-time basis.

Besides the need for advanced training in the technical disciplines related to animal production and health, the delivery of efficient support services for animal industries requires training in a variety of subjects that are not usually stressed in animal production and health courses. Auxiliary staff require training in extension, supervision, management, economics and training, usually at a level that can be provided by in-service training using existing staff in government service. More senior auxiliary staff and professional veterinarians require more extensive training in subjects such as management, communications, com-

Some basic considerations

Livestock husbandry skills, required to develop and maintain economic animal industries are, (in the Melanesian and Polynesian islands of the Pacific), largely new skills. Throughout the Pacific there is little background in livestock husbandry, except for subsistence systems of pig and poultry management. Since the introduction of European agriculture in the Pacific, smallholder and commercial systems of animal production have been introduced. Significant training and extension inputs are required to develop and maintain these new systems.

In many societies in the Pacific, agriculture, including livestock husbandry, is regarded as women's work and as having an inferior status. That often discourages recruitment of talented and ambitious school-leavers, both male and female, into animal industries. Government priorities favouring export crops (and an expanding job-market outside of agriculture) exacerbate the situation.

Further constraints, to animal industries in the Pacific, include the very fragmented nature of the local market for livestock products, the relatively high cost of production, and the very high costs of freight and transport within the region. Livestock products or close substitutes, such as canned fish, are often cheaper and more readily and reliably available from major agricultural exporting countries, such as Australia, New Zealand or, in the case of fish, Japan, than one's own or another Pacific island country. The value of imports of livestock products is rising at a significantly greater rate than the population throughout the Pacific. Economic replacement of even a small proportion of these imports will require trained manpower to improve livestock production and productivity, as well as sound guidelines from individual governments in the region. Source: Sol. Is. Conf. "Training of Indigenous Personnel for the Delivery of Support Services for Animal Industries" by M.J. Nunn.

Did you know

Did you know that Doberman Pinschers were named after a German tax collector. Aware of the unpopularity of his job, Ludwig Dobermann of Apolda in Thuringia (East Germany) developed, in the 1800s, an especially fierce breed of hunting dog (Pinscher) to help him on his rounds.

Source: ZVA News June-July/88

Animal health has been vitally important in Canada since 1865, when the legislature of Upper and Lower Canada established an "Act to Prevent the Introduction and Spread of Disorders in Animals". After Confederation, an "Act Respecting Contagious Diseases in Animals" was the first agricultural bill that the then fledgling country passed.

Source: Agric. Canada Bulletin

Auxiliary staff require further training

puting and data processing, information systems, economics, planning and budgeting, and public administration. The increased importance of training in communications and management in veterinary training has been recognized recently (Chenoweth 1985, Clark and Gray 1985, Acha 1987). As most veterinarians in the countries of the Pacific are likely to be in positions involving administration of an area or national service to animal industries, the importance of in-service training in these disciplines, which might together be termed "veterinary administration", cannot be overstated. The need for such training and the options available to meet this need deserve careful consideration by both individual countries and international organizations (Blajan, Gee and Gimeno

1987, Nunn 1987).

The requirements of the countries of the Pacific for training of indigenous personnel for the delivery of support services for animal industries are quite similar throughout the region. Training

is required for professional and auxiliary personnel at a variety of levels and in a range of both technical and more general disciplines at each level.

The opportunities for developing appropriate training programmes in a variety of modes are considerable and raise a number of possibilities for regional and international cooperation that are cost-effective, relevant and with much potential for a significant impact on animal industries in the region.

Conference on veterinary services for South West Pacific

Cooperative Venture
A Unique Event and Major Success

CONFERENCE ON VETERINARY SERVICES FOR THE SOUTH-WEST PACIFIC.
HONIARA, SOLOMON ISLANDS. - JUNE 17TH-19TH, 1988.
CHAIRMAN - W. J. PRYOR (AUSTRALIA).
ORGANIZING COMMITTEE - W. J. PRYOR, I. G. R. DAVIS, J. HAYHOE, P.
BOLAND, G. POLKE AND C. McQUEEN.
SPONSORS - AUSTRALIAN INTERNATIONAL DEVELOPMENT
ASSISTANCE BUREAU
- AUSTRALIAN VETERINARY ASSOCIATION
- COMMONWEALTH VETERINARY ASSOCIATION

Draft of Mr. J.T. Blackburn's speech
at the Opening Ceremony
Solomon Islands, June 17-19, 1988

Mr. Minister, Sir William, distinguished guests, ladies and gentlemen. We are all delighted to be here on this beautiful Island, quite rightly named the Friendly Isles, and on behalf of the Commonwealth Veterinary Association I would like to thank you Minister for sparing time from your busy schedule to come today to open these proceedings. We are well aware of how busy a Minister of Agriculture is and we appreciate your presence today.

I would like to join the Chairman of this session in thanking the various organizations for their support but in particular the Commonwealth Foundation who made this meeting possible.

The Director of the Commonwealth Foundation, Inoke Faletau is particularly interested in this conference and I am quite sure that the fact he comes from Tonga does not really influence him at all.

I would like to congratulate the Regional Council for pursuing this idea of having a conference in these Islands. I know that the idea was first mooted in 1981 and has been pursued ever since. Our decision to hold this conference in the Solomon Islands has drawn some criticism from some quarters, the usual comment being, 'why take people out of the Islands, why not bring them to some central point on the main land for a conference'. This epitomises the attitude towards the Island States. We believe it is correct to bring the conference to Islands and discuss the problems affecting the Islands here on site.

As the Minister stated small island states face special problems in all

aspects and particularly with regard to livestock improvement which is an important field.

You will note that we have a very good programme arranged and although many conferences are little more than talking shops I am quite confident that we shall have a successful conference here.

I confess to having a somewhat cynical view towards experts as it is my own personal opinion that of all the afflictions imposed upon developing countries in the last two decades the greatest has been a surfeit of experts. However, today we have a group of people with vast personal practical experience, therefore the outcome of this conference will be successful and I have little doubt that at the end of the conference we shall have a series of recommendations which would be of benefit to the South West Pacific Region.

Australasia council members

Australasia: Dr. W.J. Pryor (also Regional Representative)

Malaysia: Dr. Ahmad Mustaffa bin Babjee

New Zealand: Dr. Eric Shortridge*

Papua New Guinea: Dr. Mike Nunn

Singapore: Dr. Giam Choo Hoo

Solomon Islands: Dr. Colin McQueen**

Tonga: Dr. G. Moengangongo**

Vanuatu: Dr. Peter Bazeley**

Western Samoa: Dr. Ken Lameta**

*Dr. Shortridge is New Zealand's retiring CwVA council member. He is continuing in office until a successor is appointed.

**Indicates recently appointed CwVA council members.

Dr. McQueen is secretary and president of the Solomon Islands Veterinary Association and Acting Chief Veterinary Officer of the Solomon Islands. His address is c/o Min. of Agric. & Lands; P.O. Box G1; Honiara; Solomon Islands.

Dr. Moengangongo is the Director of the Institute of Rural Development in Tonga. His address is Institute of Rural Development; Private Bay 30; Nukualofa; Tonga.

Dr. Lameta is Chief Livestock Officer in Western Samoa. His address is Dept. of Agriculture, Forests & Fisheries; P.O. Box L 1874; Apia, Western Samoa.

Source: Communication for Reg. Rep. Bill Pryor.

Did you know

Many scientists today believe that the world is warming, causing the oceans to expand and polar ice caps to shrink with more water thus released into the world's oceans. Many attribute this, at least in part, to atmospheric pollution

— caused largely by burning coal, oil and wood for fuel. Recent studies have found evidence of sea-level rise with a likelihood of continuing and more substantial rises. If this happens, low-lying countries such as Bangladesh face disastrous flooding; low-lying island states such as Maldives could be faced with the disappearance of much or all of their land surface.

Source: Commonwealth Currents June/88

Report to CwVA and Foundation on South-West Pacific Conference

The Conference was planned by a Conference Committee comprising representatives from the Solomon Is. Australia and the Commonwealth Veterinary Association following approval of an initial approach from the Regional Council CwVA-Australasia to the CwVA Executive Committee, and subsequent Government support. The initial steps were taken in 1983 and the Committee membership is recorded.

Participation

A total of 28 representatives participated including at least one from every English-speaking South-West Pacific country which provides any veterinary services.

Representatives were present from Papua New Guinea, Western Samoa, Tonga, Solomon Islands, Vanuatu, Fiji, Malaysia, Singapore, New Zealand and Australia.

Also present were the President of the Commonwealth Veterinary Association, JT Blackburn, UK, the Regional Representative for Asia, S Abdul Rahman, the Regional Representative of the host region, WJ Pryor and representatives from ODA (Overseas Development Administration) based in Fiji, IRETA (Institute for Research, Extension and Training in Agriculture), Western Samoa, USDA (United States Department of Agriculture), Philippines, the Professor of Animal Health, University of Sydney, the President of the Australian Veterinary Association and a number

of private consultants who work in the South-West Pacific region.

Also in attendance were a number of other technical personnel of the Solomon Islands Ministry of Agriculture and Lands who attended sessions as their duties allowed.

The Organizing Committee considered that the total number of participants was excellent.

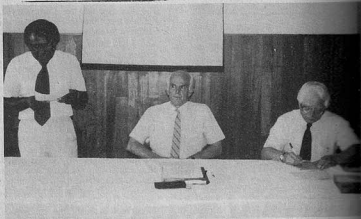
Conference Programme

The Conference opened with the welcome by Dr. W.J. Pryor, Regional

Representative CwVA - Australasia to all delegates and visitors. He stressed that this was a unique conference in that such a range of veterinary delegates had never been assembled before.

The official opening was performed by the Minister for Agriculture and Lands, the Hon. Joini Tutua. It should be recorded that the Minister involved himself in the Conference to a far greater degree than one would have expected.

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Official opening of Solomon Islands Conference - left to right, The Hon. Joini Tutua, Minister for Agriculture and Lands (S.I.); W.J. Pryor, Chairman, (Australia), J.T. Blackburn, CwVA President, (UK).



Among participants at the Solomon Islands conference were (left to right) Ian Millar, Australia-Solomon Islands; Colin McQueen, Solomon Islands; Dudley Wate, Solomon Islands; George Moengangongo, Tonga; Ken Lameta, Western Samoa; Richard Irosaea, Solomon Islands.

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A Theme
For A
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Veterinary
Conference
Send in your
suggestion
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Report to CwVA and Foundation

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pected. For example, on the closing day when the Open Forum took place and the Conference Recommendations were developed, he was present all day. He was a charming and concerned participant and his total dedication to the Conference greatly touched the delegates.

The President of the CwVA, Dr. J.T. Blackburn, thanked the Minister and also informed the Conference of the high level of support CwVA was trying to give to Commonwealth countries in the South-West Pacific region.

Some minor modifications to the printed programme occurred due to personnel changes since the Conference programme was approved.

The overview from the country statements provided an excellent description of the extent and role of animal industries in the South-West Pacific countries. Also they quantified animal health and production problems and the departmental and private infrastructure which serves these industries.

Papers that followed described veterinary laboratory services available, movement of animals between the countries, economic and social aspects of animal industry development and the use and training of relevant indigenous staff. In the review sessions a series of problems was identified none more important than the continuing low number of indigenous veterinary graduates. It was recognized that veterinary services will increasingly be provided by a small number of such graduates supported by a large cadre of well trained indigenous support staff.

The Conference Proceedings are to be published and are expected to be available by about November, 1988. The forum and discussion sessions were fully recorded and these will also be included. The Conference View was presented by one of the world's most distinguished veterinary scientists, Sir William Henderson FRS. This too will appear in the Proceedings.

Regional Council Meeting of CwVA

Notwithstanding a full conference programme, the evening of the second day was devoted to a Regional CwVA Council meeting which amongst other agenda items examined progress and future action in future action in fulfill-

ing the range of activities to improve the Region's programmes in the veterinary science area. Presented to this meeting were also two special reports:

1. A survey by the New Zealand delegate, of the livestock industries in the Region commissioned by it in 1986.

2. A proposal from the Singapore delegate for a programme called *Servet* whereby veterinarians could with minimal financial reward, assist developing countries needing special veterinary expertise.

The President of CwVA also reported on global activities of the Association and advised how this region could integrate with them.

The Minutes of this meeting have been forwarded to the Secretary/Treasurer of CwVA and copies can be obtained by those interested.

Social and Excursion Activities

A modest social programme was included in the Conference comprising a Conference Dinner in Honiara and a barbecue and inspection at the Livestock Research Farm. This latter showed delegates what breeds were currently being imported, developed or distributed in the Solomon Islands livestock development programme.

Financing of Conference

The full financial statement, as at today's date is set out and it shows that financial support was obtained from a number of sources additional to the CwVA, including the Australian International Development Aid Bureau, the Australian Veterinary Association and the EEC Institute for Research, Extension and Training in Agriculture. Other agencies including the Overseas Development Administration provided financial assistance for their delegates to attend.

All in all it can fairly be claimed that approximately double the finance provided by CwVA was raised from a variety of sources. The Organizing Committee considered this an extremely satisfactory situation.

Conclusion

This report does not detail the assessment of veterinary services in the Region nor the programme adopted to try and overcome deficiencies identified, but these will be fully reported in the Proceedings when published.

The Organizing Committee in reviewing the Conference considered it could be fairly described as thoroughly successful. At the personal level links were formed between veterinary personnel from every one of the member countries which had never happened before. The isolation of the individuals working in this region needs to be understood to appreciate the importance of this fact.

At the technical level excellent exchange of veterinary intelligence occurred and a will to cooperate to use scarce resources in laboratory, field and quarantine services was established. Furthermore information exchange in such areas as legislation and animal health and production protocols is to be upgraded to try and overcome some individual country problems.

It is also believed that the Proceedings when published will become the definitive document describing the animal industries in the South-West Pacific, their management and their problems and future plans to overcome them.

I would like to repeat that the excellent spirit of friendship and cooperation the Conference developed was greatly aided by the intense personal interest of the Minister and his continued support.

Acknowledgements

It is particularly appropriate to thank a number of individuals who helped stage a conference in a country where there is only one veterinarian. Dr. Colin McQueen of the Solomon Is. and his departmental colleagues were responsible for all organization within the country. Drs. Ian Davis and Pat Boland from Australia were responsible for programme development in a situation where great distances and time delays had to be overcome. To them, to the CwVA, to other sponsors I extend most sincere thanks for mounting a memorable conference and one of which the CwVA can be proud.

W.J. Pryor
Chairman, Organizing
Committee Regional
Representative-Australasia

Notes from '88 CwVA Australasia council meeting

(1) Dr. Shortridge (New Zealand) advised that NZ Veterinary Association currently donated journals to eight countries - St. Lucia, Sri Lanka, W. Samoa, Bangladesh, Tonga, Solomon Islands and to the CwVA Secretary.

Dr. Lameta (W Samoa), Dr. Bazeley (Vanuatu) and Dr. Moengangongo (Tonga), expressed gratitude for the journals from NZ, Dr. Nunn (Papua New Guinea) expressed appreciation of receipt of back numbers of the AVJ for his training institute.

(2) The Chairman (Bill Pryor, Australia), advised that the University of Melbourne Centre for Continuing Education and the Veterinary Post-Graduate Foundation of Sydney University would supply notification of programs to Representatives of CwVA. The Australian Post-Graduate Foundation had donated \$600 worth of publications as a gift to the Region for this Conference but sadly these had not yet arrived.

(3) Dr. Shortridge agreed to discuss with the Director of the NZ Continuing Education Program how to provide information on the publications available and advice on forthcoming meetings to regional councillors.

(4) Dr. Shortridge reported on action he had taken on past decisions of the Regional Council.

a. Professor David Blackmore (Massey University) had provided some data on Public Health and was hoping to advance this project further.

b. Animal Production in SW Pacific. Dr. Shortridge presented data he had collected but said these were now largely superseded by the up-to-date papers presented at this Conference.

(5) The Chairman reported that the CwVA Executive Committee considered that there should be a regional meeting every 3 years. He requested proposals for the scientific theme for the next meeting. It was agreed that

members would send their suggestions to him before December 1988.

(6) There was discussion about the role of the CwVA and the possible problem of overlap between CwVA meetings and other similar and/or competing meetings in the region. The Chairman considered that proper consultation with the Region would avoid problems of this nature.

(7) a. Following comments from the President of CwVA on the desirability of staggering terms of office between adjacent regional councils eg. Asia and Australasia, it was resolved that Council recommend to the AVA that Australia continue to provide the Regional Representative until January 1991 and that Malaysia replace Australia in 1991.

b. It was further resolved that the AVA be requested to appoint Dr. W.J. Pryor as its Representative during this period.

Source: Communication from Dr. W.J. Pryor, Australia.

Papua New Guinea Veterinary Association

The president of the PNGVA is Dr. P. Leahy. Its secretary is Dr. M.J. Nunn. The address of the PNGVA is P.O. Box 6372, Boroko, Papua New Guinea.

The editor of its excellent newsletter is secretary Mike Nunn. The P.N.G. newsletter serves as a fine example of an interesting and informative publication put out by a small association. Considering the inadequacy of national infrastructure and the difficulties of communication, one cannot but admire Mike and his colleagues.

Reports from P.N.G.:

The Livestock Division of the Department of Agriculture and Livestock (formerly Department of Primary Industry) recently passed away. The Division was abolished in the latest reorganization, which attempts to restructure the Department along functional lines rather than the former commodity or industry based structure. Livestock Development Section has been relocated and combined with Horticulture Section to form the new Food Management Branch of Investment Division. Animal health services have been combined with similar plant health services, chemistry and quarantine sections to form the new Agricultural Protection Division. This Division will be responsible for all animal and plant health research, agricultural quarantine, and agricultural chemistry research and laboratory services.

Source: PNG Newsletter July/87

In late 1986 Graeme Tupper and Mike Nunn distributed a circular seeking comments on the possibility of forming a P.N.G. Society of Animal Production (P.N.G.S.A.P.). Comments were received from people in government, parastatal, private and educational organizations and most were very supportive of the need for such a Society. Earlier this year a meeting was held in Lae and a Steering Committee was formed to develop and establish a Society of Animal Production. The Steering Committee, under the chairmanship of Ramesh Malik of the Department of Agriculture of the University of Technology, has had three meetings and has attracted about 50 members to date. The inaugural Annual General Meeting and Conference is scheduled for June 20-23 at U.O.T., Lae, and a wide range of local and overseas speakers is expected to present an overview of animal health and production in P.N.G. and details of recent advances. Initiating and maintaining interest in any scientific organization is very difficult in P.N.G., owing to the small numbers and scattered locations of potential members. A Society of Animal Production has a larger potential membership base than most similar organizations and it is to be hoped that it can attract a broad membership base and grow to become a representative and effective

organization to help develop livestock production in P.N.G.

Source: PNG Newsletter Nov./87



Two PNG veterinarians at the recent Solomon Islands conference were Mike Nunn (left) and Yuni Yunamu.

A message for all veterinarians

The 64th Annual Conference (May 1988) of The New Zealand Veterinary Association saw Dr. Roger Marchant assume the office of President of the NZVA. The CwVA News takes pleasure in reproducing Dr. Marchant's 1988 presidential address. Quote:

"As I begin this address I am very aware of the great sense of tradition our profession has. At the same time, I am very aware, as we prepare for the New Zealand College of Veterinarians, that this may well be the last conference of the New Zealand Veterinary Association in the form we have known it for so many years. During this address I don't wish to dwell on tradition, and what has happened in the past. Nor do I wish to spend time imagining what may be in the years to come. I shall concentrate on the issues that we, as a profession, face right now.

The 1986 Presidential Address given by Peter Trim of Auckland was about service. I wish to follow this with the theme of quality, how it applies to the veterinary profession and how it is particularly relevant as we as a profession respond to the political climate within society right now.

Quality can be defined as "a level of excellence", or as "fitness for use". As a Rolls Royce motor car is quality so too is a mini. My interpretation is that quality exists if something "serves the needs of the client", or "it is what the client wants". Recognize that quality applies as much to a service as it does to a product. The International Standards Organization recognizes the importance of quality being associated with services when it says that for a service to be of quality it "must meet a well defined need or purpose, satisfy client expectations, comply with standards and specifications, comply with statutory requirements of society, be available and at a competitive price, and be provided at a cost which will yield a profit to those providing the services".

The concept of quality is very much part of society's expectations. The amazing development of the Japanese economy has come about because the Japanese realized in the 1950's and 60's that quality really did matter, that good quality paid dividends, and poor quality cost money. American manufacturers look to the idea with gusto, to the extent there is now a well recognized international philosophy and culture of quality — quality management, quality assurance, quality systems, quality control or whatever. The International

Standards Organization from which I quote is very much part of this philosophy.

The veterinary profession has responded to the demands of the public for quality. The expectations of clients who are more knowledgeable, more aware of standards, more able to discuss options and outcomes, wanting to participate in the decision making process means that our profession has had to respond to the concept of providing quality.

When debating what quality is, and whether or not the veterinary profession provides it, we must be aware that society does not wish those providing that quality to be a protected and privileged group. Protection, without accountability to society will lead eventually to a "closed shop of self interest". Initially the reasons for protection may have been justified. Phrases such as "in the best interests of the consumer" were used. Dr. Donald Stevens, in his 1988 treatise "Occupational Licensing in New Zealand" quotes a J. Ashurst who in 1823 said "the law of this country lays such restraints on the action of individuals as are necessary for the safety and good order of the community at large". Dr. Stevens contends that, just as in 1823 the law was used to secure the position of the advantaged, so too, it is today.

Further evidence of the pressure to break down the supposed protected and privileged groups exists in New Zealand and overseas. In 1987 Mrs. Thatcher was given some advice from the Independent newspaper "to lead an assault against middle class privilege and special interest groups. That means breaking up the price-fixing cartels known as 'the professions', it means introducing competition into the relatively closed and cosy worlds of lawyers, doctors, teachers, civil servants and all the others". I accept that not all this list is relevant in New Zealand, but some of it is. In New Zealand the pressure to introduce competition is supported by law. The 1986 Commerce Act makes it illegal to not allow competition, and provides for some hefty fines of individuals and groups who try to function as a "closed and protected group". The veterinary profession is certainly not exempt from this pressure. So how is it responding? Removing of restrictions on advertising is one example. The freedom to advertise allows competition within the profession and opens the "closed and cosy world" the Independent newspaper refers to.

However, there are some who find the whole idea disturbing and unnecessary. Sir David Napely, in delivering the Woolridge Memorial Lecture to the British Veterinary Association Congress in 1987 suggested "the only public benefit derived from allowing a professional man to declare, by paid advertisement, his own professional virtues or aptitudes, is that it demonstrates to the public that the professional who finds it necessary to advertise is manifestly the professional they are best to avoid like the plague. He must be desperately in need of clients". I must disagree strongly with much of this, including the sexist language. The New Zealand veterinary profession was not forced into advertising, it realized the public had a right to information, and that it had a responsibility to provide that information. Advertising has in fact enhanced the image of the profession in that the public is now more aware of the range of services the veterinarian offers.

I suggest that a concern of those who are uncomfortable with advertising and exposure to competition is really a concern about quality, that there will be a lessening in the quality of the service offered. Sir David Napely suggests so himself when he says "the fundamental evil of unrestrained competition is that those who pursue it are driven to cutting corners, quality significantly suffers, and integrity becomes bent". To come to this conclusion however I believe is to make the false assumption that, in general, the public is not discerning. Where competition is allowed, those who provide quality will succeed, because a discerning public will not choose poor quality, no matter how cheap it may be.

There is a danger in responding too rapidly to the unbridled enthusiasm which seems to exist in some parts of society to "break up" those things tangible and intangible which bond a profession together. The danger is, as I see it, that the "breaking up" will remove those safeguards which guarantee quality within the profession. The safeguard of attaining and maintaining adequate training standards for example are safeguards which ultimately protect the public. Some would say the public does not need protection, that there are other avenues within the law to pursue those who do not provide quality. It is my contention that if a profession wishes to do this, and the reasons are legitimate and

New AVA house opened

A total of 113 AVA members and guests were present when the Governor-General, Sir Ninian Stephen, formally opened the National Office of the AVA on 12 March, 1988, in Sydney.

The ceremony has been professionally videoed and shows internal and external aspects of the building. This VHS video will be circulated to all Divisions. SIGs and branches are invited to apply for a loan of the video to show to members. A plaque commemorating the opening now adorns the entry foyer.

Address by the Governor-General on the opening of AVA Headquarters

First, let me say what a pleasure it is for my wife and I to be with you this afternoon to celebrate your success in achieving your long-awaited goal — this splendid administration building.

It is especially appropriate that it should be in this Bicentennial Year that you have reached your goal, because throughout your long, and at first difficult, history of professional association, over more than 100 years, your profession has always thought in national, in Australia-wide, terms. Your first association, formed as early as 1880, took the name of the Australasian Veterinary Medical Association and rightly so — small though it was, it had members in five Australian colonies and New Zealand.

They knew what they were about, those early veterinarians, when their Association was only two years old and an inter-colonial veterinary conference was proposed; it was decided that it should be in Melbourne during Melbourne Cup week that it should be held!

However, it wasn't until after World War I and service together in the 1st AIF's Australian Army Veterinary Corps that the past record, of many short-lived associations of veterinarians from that first society of the 1880s onwards, was ended and the veterinary surgeons of Australia began in earnest to work together towards one cohesive Australia-wide body. This they achieved in the early 1920s and by 1924 the Australian Veterinary Association had its own journal going. In the next year it achieved a circulation of just short of 300 copies.

Incorporation of the Association followed in 1931 and over the years membership has grown in an extraordinary fashion, 40 years ago you numbered fewer than 350, now your

ranks are more than 10 times as numerous with 3,600 members.

For very many years the Association lacked a home of its own, instead it had constant changes of address and one of the many advantages of this new building will be no more changes of address, in contrast with the dozen or more temporary homes the Association has known over the past 50 years or so.

Throughout its long life the work of the Association, and, of course, that of the profession generally, has made the most vital contribution to the health and well-being of Australia's livestock population and hence to the prosperity and economic well-being of the nation. It has been its vigilance in maintaining government and community awareness of the dangers of exotic diseases that has been crucial in maintaining the

very high standards of animal health Australia enjoys today.

This has had two consequences of extraordinary importance for all Australians: high standards of human health and a high reputation for our primary products in world markets. Recent scares about the quality of some export shipments have served to remind us all of how vital this is, not just to intangible things like export reputation but to bread and butter issues like Australian standards of living. We depend on our export earnings, which in turn remain, despite our mineral wealth, so dependent upon animal products whether they be wool or beef or sheepmeat or livestock.

The age of chemicals in agriculture has brought with it new hazards: see-

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not merely of self interest, then society should accept the offer.

There are other reasons why a quality veterinary service is important, and maintenance of standards essential. One is in the area of the public expectation of the service that a veterinarian gives. The title "veterinarian" has become synonymous with a standard of care and skill in the treatment and welfare of animals that has been developed over many many years. Nothing must be done to reduce that expectation, or devalue the quality of that service.

A further reason is the acceptance of the responsibility other statutes give the profession. For example, the 1967 Animal Remedies Act gives the care and use of certain toxic drugs and chemicals to the profession. This has been given, I am sure, in the understanding that those to whom the responsibility has been given are of sufficient quality to be able to accept this responsibility. Some of these substances are toxic and dangerous, from which the public has to be protected. Some are substances which are sources of residues in food products of animal origin. The indiscriminate use of these by people who have little understanding of the broader issues of residue contamination would have drastic effects on our ability to sell products overseas.

The assurances given to overseas buyers of New Zealand agricultural products are assurances given by

qualified veterinarians. Acceptance of these assurances will only occur if the standard of those giving the assurance is accepted internationally. At the moment it is, but if anything, in any way at all, is done to lower these standards then New Zealand's future in overseas markets will be severely jeopardized. Professor E.D. Fielden, in giving the 1988 Presidential address to the New Zealand Society of Animal Production makes the point clearly. "Because this country's security depends on satisfying customers and having them return for more, quality of product has become of utmost importance. There will be continuing obligations and, provided adequate standards are maintained, the credibility of New Zealand's products will remain assured. The importance of this as far as retaining entry to export markets must never be underestimated".

The veterinary profession in New Zealand accepts, and has shown it accepts, that it cannot expect unwarranted protection and privilege. What it does not accept, is the devaluing of standards of quality within the profession so that public expectations are not reached, responsibilities given by statute cannot be met, and worse still, our international credibility as assurers of quality of food products is undermined. The jeopardizing of our overseas markets is too high a price to pay."

Source: Vetscript (NZ) Aug/88

Copper toxicity found in Malaysian sheep

Authors: (K.F. Chooi & R.I. Hutagalung/Univ. Pertanian Malaysia). (We Wan Mohamad/Guthrie Research Chemara).

By-products of oil palm, palm kernel cake and palm oil mill effluent have been increasingly used as alternatives to traditional concentrate feedstuffs for small and large ruminants in Malaysia. Palm kernel cake is the by-product from palm kernel extraction and represents about 50% of the original kernel. Palm oil mill effluent is the collective term for liquid wastes discharged from the final stages of palm oil production. The moisture is extracted to give a dried product. The major reasons for the use of these by-products as feedstuffs were their availability and comparative cheapness over traditional concentrates.

We wish to report deaths in 3 separate groups of sheep due to copper toxicosis from feeding on oil palm by-products. Fifteen local crossbred sheep, (Group A) age 7 to 12 months were fed a diet consisting of 80-90% palm kernel cake and 10-20% palm oil mill effluent. This was complemented with molasses, limestone and vitamin premix. After 4 to 5 months on this diet, 3 sheep became anorexic and listless and subsequently died.

At post mortem examination of all 3 sheep, the mucosal and serosal surfaces were yellow. The liver was slightly swollen and yellow, both kidneys

were swollen and the cortical surface was reddened and granular. The cut surface of the kidneys revealed that the cortex, medulla and pelvis were stained dark red. Urine in the bladder was blood-tinged. In one case the spleen was congested and pulpy. The lungs were congested and oedematous. Histopathological examination of the liver showed that hepatocytes in the periportal and midzonal areas were vacuolated. There was also a lack of cells in many periportal areas and in many of these there was pooling of erythrocytes. Many hepatocytes did not have nuclei and some nuclei were enlarged. Mononuclear inflammatory cells were concentrated in the periportal areas. There was also proliferation of connective tissue in these areas. Kupffer cells were enlarged and the cytoplasm of many hepatocytes contained yellow pigment. Histopathological examination of the kidney showed that many glomeruli were enlarged due to the presence of pinkish fluid in the capsular space. Proximal tubules were dilated and the cytoplasm of the cells of these tubules were granular and eosinophilic. Many of the nuclei in the tubules were karyorrhectic. There were haemorrhages in the corticomedullary junction and in the medulla.

Another flock of 150 sheep, (Group B) consisted of local and imported Romney; 6 months to 3 years old. The

sheep were grazed on grass with palm kernel cake being provided as a supplement. Over a period of 2 years there were 7 deaths and in these sheep, the first sign of sickness was decreased intake of both feed and water. About 3 days later, there was visible yellowing of the mucous membranes followed rapidly by yellowing of the gums. By this time haemoglobinuria was usually present and affected sheep died shortly after.

A third flock of sheep; Dorset and local crossbreds (Group C) fed a diet consisting of 40% palm kernel cake, 40% maize and 20% soybean meal had a flock mortality of 62.5% (5 out of 8) after 8 months of feeding on this diet. Gross lesions in animals from groups B and C were similar to those described for Group A. Analysis of copper levels in palm kernel cake and palm oil mill effluent are presented in Table 1 (Hutagalung et al, 1982). Copper levels in liver and kidney of dead sheep from group B are presented in Table 2.

The 3 groups of sheep were from different institutions that were all

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ingly innocuous chemicals used to control insect pests in crops or pastures can, as we now know, jeopardize both our meat and wool industry. They can be retained not only in animal tissues, but may even, apparently, contaminate lanolin residues recovered from wool scouring.

The personal disaster and national loss that is represented by quarantined properties that have to be left idle for indefinite periods until the residues diminish sufficiently to be used for pasture or cultivation are a warning to us all of the high importance of scrupulous care in the use of chemicals, just as we must be constantly on our guard against the unwitting introduction of exotic diseases into our flocks and herds. In all these areas your Association and all its members have their vital educative role to play.

The magnificent facilities incorporated in this splendid new building will be put to very good use, I am sure, to ensure that the educational arm of the Association reaches the many people in need of your expertise. I now take great pleasure in declaring open the new headquarters of the Australian Veterinary Association.

Source: Aus. Vet. J. May/88

PNG forms new animal society

In July of 1987 at an informal meeting, convened by Dr. Ramesh Malik, it was decided to form a national society, which would cater to the needs of all those involved in animal production in Papua New Guinea. Through the efforts of a nine-man steering committee this society has now taken shape. It is known as the Papua New Guinea Society of Animal Production (P.N.G.S.A.P.), and its objective is to maximize animal production in Papua New Guinea.

By December of 1987 over 50 members had joined. They represent a broad base of interests, including the Dept. of Agric. & Livestock, the Univ. of Technology, the Livestock Dev. Corp., students, private individuals and private companies. Membership is open to anyone interested in animal production, and corporate or sustaining

organizations, such as commercial pig, poultry, crocodile, and fish producers and to other livestock agencies.

That the P.N.G.S.A.P. will hold its inaugural Meeting and First Annual General Meeting at PNG Univ. of Technology in Lae in June /88 speaks well for its steering committee. The chairman of this committee is Dr. Ramesh Malik (Dept. of Agric., PNG Univ. of Technology, Lae), the secretary is Mr. K. Wenge (MRC, Labu), and the treasurer is Mr. Martin Raurela (Pastoral Research Centre, Dept. of Agric. & Livestock, Erap). A regular newsletter is already being published, and the CwVA News Bureau has so far received four issues of it. Its editor is Dr. Mike Nunn of the Veterinary Laboratory at Boroko. Source: P.N.G.S.A.P. Newsletter Dec./87 & Feb./88.

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primarily interested in the potential value of oil palm by-products as substitute concentrate feed. Thus emphasis was placed on the nutritive value of the oil palm by-products and little consideration was given to the eventual content of copper in the diet. The special susceptibility of sheep to copper (Dick 1954; Corbett et al 1978) was overlooked and as it turned out, deaths apparently due to copper toxicosis occurred. Undoubtedly, oil palm by-products which have a much higher content of copper than other materials fed to the three groups of sheep, was the cause of the copper toxicosis.

Percentage mortalities due to copper toxicosis were higher in groups A and C compared to group B. In retrospect, this was to be expected as palm kernel cake and palm oil mill effluent were major components of the diet of animals in these groups, whereas grass was the major food, with palm kernel cake as a supplement, for sheep in group B.

Grass lesions were similar in sheep from all groups. Histological lesions in the liver and kidney were similar in

sheep from groups A and C. Histological examination was not done for sheep in group B. The histological changes in the liver and kidney were very similar to those described by Gopinath and McHowell, (1975) for chronic copper toxicity in sheep. However, in the present case, casts were not observed in the kidneys. Only liver and kidney from sheep in group B were analysed for copper but in view of the similar post-mortem changes there is strong presumptive evidence that sheep from groups A and C also died from copper poisoning.

Our conclusions thus far are that oil-palm by-products, should not be used as the major component of the diet; nor can these products be used safely as the major component of concentrate feed for sheep over prolonged periods of time. Experiments are being undertaken to determine the optimum amount of oil palm by-products that may be incorporated into the concentrate feed and in the diet without ill-effects for the sheep.

Source: AVS Vet J May/88

Commonwealth scientists and plant specialists held a workshop in New Zealand recently to discuss recording information on the traditional uses of plants. It was jointly organized by the Commonwealth Science Council (CSC) and the botany division of the Department of Scientific and Industrial Research in New Zealand.

Under its biological diversity project, the CSC promotes research into different plants and animals as part of an international scientific programme on biological diversity and genetic resources. One of the challenges in the workshop and of both research projects generally, is how to get an exchange of ideas between scientists and people with traditional knowledge and skills in native plants and their uses.

At the workshop, both sets of people met to determine the best ways to grow traditionally valuable plants; to explore further cultural uses and expand the use of plants in such areas as food, fibre, shelter and medicine; and to impress on scientists the value indigenous people attach to plants so that scientific researchers respect these values.

Source: Commonwealth Currents June/88

FEATURE

Report on importance of production,
health services, administration and management

Introduction

"It is important in any consideration of Animal Health Service needs to bear in mind the systems of animal husbandry for which the service is being provided and the magnitude and importance to each individual country of its animal industry.

With this brief introduction I will now report on the specific topics allotted to me at our previous meeting in Malaysia.

Animal Production

In almost all the island countries in the Region there are two systems of animal production, the commercial system and subsistence agriculture. I have been unable to ascertain with any accuracy the proportion of the livestock populations of each individual country in each of these two systems. The figures in Table 1 below are the total livestock population in both systems. These figures were obtained during a tour I made of nine countries in the region in July and September, 1986.

Author: E.H. Shortridge
(New Zealand)

Animal Health Services

All the countries in the region have officers in their government service responsible for animal health and quarantine. To quote from my article in CwVA News July 1987 (page 57).

"In only five of the countries visited are there veterinary graduates in the animal health services. In the others, animal health is the responsibility of graduates in several other agricultural disciplines. In some of these small island countries the employment of veterinary graduates solely to cater for animal health could not be justified.

Much of the clinical work both in the countries with veterinarians and in those without is carried out by livestock officers. Many of these officers have been trained in an agricultural discipline at the University of the South

Pacific or elsewhere and have subsequently been trained in disease recognition and clinical treatment by veterinarians in the country in which they work or in other countries such as Fiji. These livestock officers play a most important role in the overall animal health services of the region and it is important that they continue to receive the best training and support that can be given to them.

At present there are veterinary graduates in Papua New Guinea (15), the Solomon Islands (2), Vanuatu (5), Fiji (10) and Western Samoa (5). Many of these are expatriates working under short term contracts to the governments and they perform the full range of duties of veterinary state medicine and clinical practice. There are now some local graduates who have trained overseas and have returned to the animal health service of their own countries. It is to be hoped that more good students can be encouraged to

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take up veterinary training overseas and return to their own countries in the future. Meantime there is going to be a continuing need for expatriates in the animal health services of the region. I was most impressed with the work being done by this small band of veterinarians both local and expatriate in the countries I visited. Often they are short of resources and often understaffed to the extent that some are trying to do up to three jobs at once. I admire them for the job they are doing."

In one or two countries there are veterinary surgeons in private practice catering for the needs of clinical treatment. Some countries have had periodic visits by veterinarians from New Zealand who have given their services and in some cases have met all the expenses involved. Some countries have had periodic visits from veterinarians from other countries in the region. FAO has provided veterinarians to some countries for varying periods and veterinarians have worked under Volunteer Service Abroad programmes in some countries in the region.

Apart from the above limited clinical services all animal health needs are generally provided through the in-

dividual country's Government services.

Quarantine services are generally well organized and are staffed by officers many of whom have been trained by and have had experience with the Australian and New Zealand Government Quarantine Services. In many countries there is an on-going training programme and regular liaison with the quarantine services of Australia and New Zealand.

Veterinary Administration and Management

Apart from the few private practitioners, all animal health and veterinary administration and management is a government responsibility.

Government officers, both veterinary and non-veterinary, involved in animal health operate under a variety of acts and regulations most of which in general provide adequate authority for any necessary animal health activities. In 1986, some of this legislation was out of date and required revision or replacement.

Although much of the legislation does provide for emergency action to control dangerous exotic diseases, exotic disease contingency planning

throughout the region is generally uncoordinated and inadequate.

I was rather shocked in one country to find that although veterinary and livestock officers had probably the best overall access to livestock producers, they were operating under instructions not to become involved in any aspects of animal management other than training farmers in techniques such as castration of calves. In countries where there is a need to improve production from local resources there is a great need for close cooperation between all disciplines involved in animal health and production and full utilization of all the available skilled manpower resources. I am sure that there are opportunities for better utilization of the albeit limited veterinary resources of the SW Pacific. Change will be needed in some current attitudes before the best utilization of the veterinary resource of the region will be achieved."

Editor's Note: Dr. Shortridge presented this paper at the CwVA-ADAB 1988 conference on "Veterinary Services for the South-West Pacific", June/88 in Honiara, Solomon Islands.

Table I Animal Production (1986)

	Cattle	Goats	Pigs	Horses	Sheep	Poultry	Buffalo	Other
Cook Islands	340	3,000	11,300	450	0	Fowls 31,000 Ducks 1,150	0	
Fiji	337,000	128,000	1,600*	40,000	**	Broilers 640,000 Layers 172,000	0	
Niue	200	50-100	900	0	0	Fowls 31,000 Ducks 1,150	0	
Papua New Guinea	90,000- 110,000	16,000	1,000,000- 2,000,000	1,000	2,000	4,000,000	2,000	
Western Samoa	Beef 18-19,000 Dairy 6-800	900-1000	90,000- 110,000	3,000- 3,500	0	240,000- 250,000	0	Donkeys 7,000
Solomon Islands	19,000	1,200	80,000	200	0	60,000	6	Donkeys 12
Tuvalu	0	***	7,000	0	0	18,000	0	
Kingdom of Tonga	7,800	10,600	85,000	8,700	50	Commercial 25,000 Subsistence 94,000	0	
Vanuatu	110,000	8,000	71,000	1,000	0	170,000		

*Breeding sows

**One flock Black-bellied Barbados

***Few remain from trial introduction

Rabies in Newfoundland

Rabies is seen periodically in the fox or wolf population of Labrador usually following an introduction by infected foxes from the Arctic. Previous to 1988 the last cases were in 1982 when a wolf from Churchill Falls and a fox from Nain were confirmed rabid. So far this year (1988) there have been 16 confirmed cases in Labrador, 14 in red foxes (*Vulpes vulpes*) and two in arctic foxes (*Alopex lagopus*). These have occurred in the villages of Hopedale, Davis Inlet, Nain, Cartwright, and Esker.

The island of Newfoundland has always been considered free of rabies. In 1955 an imported dog was confirmed rabid in Lewisport but there was no indication of rabies having spread any further. Since the 1970's there have been requirements that all dogs and cats entering the province must have valid rabies vaccination status. No studies have attempted to determine the prevalence of rabies in the bat population. Rabies is known to exist in Maritime bats but it is not known whether we share a common bat population. Studies are planned to look at this.

On March 24 a rabid red fox was shot in Roddickton on the island's Great Northern Peninsula. On April 2, halfway between Bide Arm and Englee, a red fox, found dead with its teeth clamped onto an iron bar, was confirmed rabid. On April 14 a third red fox was confirmed rabid, after having been shot while attacking dogs in Bide Arm. On May 11, an arctic fox was found dead in Notre Dame Bay off Triton Island and

confirmed rabid. This case is assumed to be unrelated to the other three, and as yet there is no indication of further spread.

The cases on the Great Northern Peninsula are thought to have resulted from a rabid arctic fox arriving on pack ice close to this area earlier this year. The origin is thought to be from northern Labrador or the Arctic. This theory is substantiated by polar bear sightings on the Peninsula in mid-March. Polar bears only live in the northern most tip of Labrador or the Arctic and are sighted every year on the island when the break up of ice from the North arrives. The case off Triton Island and the discovery of a rabid arctic fox on the beach at Blanc-Sablon, Quebec, in the Strait of Belle Isle, tend to substantiate this theory.

Mass vaccination of domestic animals and elimination of strays is being carried out by provincial veterinarians in the areas of concern. Wildlife officials, in consultation with the rabies officials of the Ontario Ministry of Natural Resources, are into the beginning of a rabies eradication program which will include bounty hunting and trapping of red and arctic fox, and poisonous bait dispersed at controlled sites. Further measures would depend upon the spread of the disease. Author: Hugh G. Whitney, Animal Health Division, Department of Rural, Agricultural and Northern Development, P.O. Box 7400, St. John's, Newfoundland A1E 3Y5. Source: CVJ Aug/88

Research Associateships

In cooperation with the Canadian International Development Agency (CIDA), NSERC administers a program of Research Associateships for scientists from developing countries eligible for CIDA assistance. The purpose of the program is to provide eligible scientists with opportunities to acquire additional expertise and new techniques, to pursue promising research programs in collaboration with Canadian scientists, and with support to continue those programs in their home institutions. Selected associates will have the opportunity to visit Canada for up to three periods of research for a total duration of up to twelve months, each period being for a minimum of three months. The follow-

ing options exist:

1. one visit of up to 12 months.
2. two visits of up to 6 month duration each.
3. three visits of 3 to 4 months duration each.

Associateships will be limited to a period of five years.

For complete information write to: International Relations Officer, Natural Science & Engineering Research Council, 200 Kent Street, Ottawa, Ontario, Canada - K1A 1H5.

For assistance in identifying possible collaborating scientists or institutions in Canada write to: Dr. R.G. Stevenson, CwVA Council Member, P.O. Box 1410, Sackville, New Brunswick, Canada - E0A 3C0.

CVMA

Members of the 1988-89 Canadian Veterinary Medical Association's executive committee come from five of Canada's ten provinces. They are: President - Ted Shacklady of Okotoks, Prov. of Alberta; 1st Vice/Pres. - Christine Gagnon of Saint Eustache, Prov. of Quebec; 2nd Vice/Pres. - Ron Taylor of Saint John's, Prov. of Newfoundland. Members - Anne-Marie Taylor of Halifax, Prov. of Nova Scotia and David Paton of Aldergrove, Prov. of British Columbia. Dr. Shacklady's address is P.O. Box 292, Okotoks, Alberta, Canada T0L 1T0. Source: CVJ Aug/88

"Sask '88"

The successful 40th CVMA convention was known as "Sask '88". It was held, during July 1988, in Saskatoon in Saskatchewan, one of Canada's prairie provinces. 449 veterinarians registered for the convention and an estimated total of 1150 persons were present in various capacities, including being family members. Source: CVJ Aug/88

Did you know

In the Province of Saskatchewan, Canadian veterinarians in the Saskatoon-Regina area can get firsthand information about the CwVA 'Book & Journal' program from Dr. J.H.L. Mills of the Western College of Veterinary Medicine. Dr. Mills is an active participant in the program.

Zebu cattle have developed in the tropics where, in order to live, they must be able to withstand the hot climate. Their skin is very thick and is suspended in big flaps from parts of the body where it does not interfere with movement, below the neck as a "dewlap", and in the region of the scrotum and penis. The skin is well supplied with blood, and the animal is kept cool by the constant radiation of heat from the skin. That cools the blood, which in turn cools the body during circulation. The principle can be seen when a canvas water bottle is used, the outside is wet and the contents are kept cool by evaporation, whereas in a dark glass bottle the contents gradually rise in temperature when it is exposed to strong sunlight. Cuts in Zebu cattle produce far more bleeding than is the case in other breeds of cattle, although it is probable that they heal more quickly. Source: First Steps in Veterinary Medicine

**FROM THE BIRTHPLACE OF THE CwVA
THE REPUBLIC OF THE GAMBIA
a document worthy of reflection
THE BANJUL DECLARATION**

"It is a sobering reflection that in a relatively short period of our history most of our larger wildlife species have disappeared together with much of the original forest cover.

The survival of the wildlife still remaining with us and the setting aside of protected natural habitats for them is the concern of all of us.

It would be tragic if this priceless natural heritage, the product of millions of years of evolution, should be further endangered or lost for want of proper concern.

This concern is a duty we owe to ourselves, to our great African heritage and to the world.

Thus I solemnly declare that my Government pledges its untiring efforts to conserve for now and posterity as wide a spectrum as possible of our remaining fauna and flora."

signed: Dawda Jawara
18th of February 1977

Sir Dawda elected a FRCVS

History was made at the annual general meeting of the RCVS on 1st July when Sir Dawda Jawara, the only Head of State who is also a veterinary surgeon, was elected a Fellow of the Royal College of Veterinary Surgeons.

Sir Dawda, who is President of The Gambia, graduated from the University of Glasgow in 1953, after being one of the last students to stand up to the rigours of the MRCVS Diploma examinations. After two years as a veterinary officer in the government service in Gambia, he returned to the UK and, with splendid impartiality, studied for the Diploma in Tropical Medicine at the University of Edinburgh.

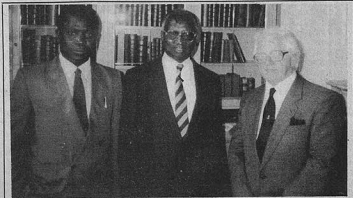
On his return to the Gambia in 1957, he was appointed principal veterinary officer, a post he resigned in 1960 to enter the political arena in the run-up to the country's independence.

In 1967, as Prime Minister of The Gambia, he attended BVA Congress at Southport. Representatives from 16 Commonwealth countries were present at this congress, and throughout the week Sir Dawda chaired the meetings which led to the formation of the Commonwealth Veterinary Association. He was elected president of the association

at the first meeting of the executive committee, which took place in The Gambia in November 1968.

In 1984, Sir Dawda, by then firmly established as President of The Gambia was elected patron of the Commonwealth Veterinary Association. Uniquely, his election as an FRCVS was

watched not only by the current president of the Commonwealth Veterinary Association, Trevor Blackburn, but also by the vice-president, Dr. Bakary Touray, and by Dr. Ian McIntyre, director of the International Trypanotolerance Centre which Sir Dawda has established in The Gambia. Source: Veterinary Practice.



Seen in the library of the RCVS are from the left, CwVA Vice President Bakary Touray, CwVA Patron His Excellency Sir Dawda Jawara, CwVA President Trevor Blackburn.

Message from Queen Elizabeth

This second Monday in March is the day which we celebrate every year as Commonwealth Day. It is our special opportunity to think about this group of nations and what it means to us. On this day we should all look beyond our own horizons and stretch our understanding of the value of the Commonwealth.

Its strength lies not just in its numbers — we are a worldwide family of a billion people — but rather in its shared ideals, its emphasis on discussion and its disposition to cooperate. This voluntary organization, the group in which we can feel comfortable, is where we can look to our friends for support and understanding and for help in finding the answers to our common problems.

Every year there are many Commonwealth meetings. These bring together all sorts of people — ministers and mariners, teachers and traders, pharmacists and farmers — all working together the more easily because they share a common language. Agreement on all subjects may not always be

possible but understanding and mutual benefit are always the goals.

At the Commonwealth Heads of Government Meeting in Vancouver last year (1987) this search for co-operative effort brought practical decisions in many areas including more help for those in need of food and shelter. I was specially interested in the decision to create a Commonwealth-wide distance learning system at college and university level to bring new opportunities for higher education to our young people and adults throughout the Commonwealth.

For the future, we must listen as well as speak to each other and so learn tolerance though understanding. If we always look for those things which unite us, whether shared hopes or shared fears, the Commonwealth link will come to mean even more to us.

I urge you to keep faith in the Commonwealth: it can and will continue to serve the world well.

14th March, 1988... Elizabeth R.
Source: Commonwealth Currents
April/88

"Inseparable Humanity"

Edited by Ron Sanders
Foreword by Alister McIntyre
Shridath Ramphal has been Secretary-General of the Commonwealth since 1975. With direct access to 48 Heads of Government responsible for one-quarter of all humanity, Ramphal's is an important voice trying to shape responses to today's global problems. He is the only person to have been a member of all five Independent Commissions in the 1980s concerned with global issues - the International Commissions on 'Development', 'Disarmament', 'Environment', 'Humanitarian Issues' and the 'South Commission'. Born in Guyana, educated in Britain and now a veteran practitioner of international relations, Ramphal possesses unique qualifications to act as a bridge-builder in today's divided world.

Inseparable Humanity is a clear analysis of the world's varied problems by someone whose work has taken him directly into several theatres of global conflict. Published to mark the 150th anniversary of Indian indenture to the West Indies, Inseparable Humanity draws on the exploitation and inequities of the indenture system, which took Shridath Ramphal's forbears from India to the Caribbean in what was called 'a new slavery', to point to the wider in-

equalities and abuses which exist in today's international economic and political system.

With a sense of urgency, Ramphal argues that human survival is endangered by inequitable patterns of global production and distribution, by the arms race and super power rivalries, by racial bigotry, by an endangered environment, by a weakening of the humanitarian ethic and a decline of internationalism. Ramphal is frank in his analysis and points to shortcomings in the Third World as candidly as he recognizes deficiencies in the First. His message stresses the urgent need for an acknowledgement by the world's leaders of the interdependence of nations and for action to make that interdependence the foundation stone on which to build a better structure for global development and world order.

Inseparable Humanity*, a selection from the speeches, statements and writings of Commonwealth Secretary-General, Shridath Ramphal, is published to mark the 150th anniversary of Indian indenture to the West Indies. Mr. Ramphal's first volume of selected speeches, One World to Share, appeared nine years ago; the title of the new volume, no less global in scope,

Commonwealth Day celebrations

Commonwealth Day is celebrated annually on the second Monday in March, a day that does not coincide with a public holiday or a major festival in any member country. This special day was initially celebrated, in 1986, with the objective of promoting understanding and knowledge of the Commonwealth, especially among schoolchildren. Appropriately, the winner of the annual 'Commonwealth of Nations Youth of the Year' award is declared on Commonwealth Day.

At London's historic Westminster Abbey, Commonwealth Day celebrations are generally attended by Queen Elizabeth, as Head of the Commonwealth, and by representatives of all member countries as well as Commonwealth Secretary-General, Shridath Ramphal. As at all official Commonwealth ceremonies, the blue Commonwealth flag, bearing the official Commonwealth symbol of a globe surrounded by the letter 'C', is flown along with the flags of all Commonwealth countries.

Commonwealth Day has acquired a special significance for Commonwealth nations. It is a day when they acknowledge their membership in a multi-racial, multi-cultural association representing more than a quarter of mankind. Each year the Commonwealth Secretariat publishes a Commonwealth Day poster (**) in distribution in schools and public places throughout the Commonwealth. Last year (1988) nearly 150,000 posters were distributed. The Commonwealth Secretariat has also brought out a publication, 'The Commonwealth Day Handbook for Schools (***), which offers ideas and projects for Commonwealth Day. This handbook was compiled for the Secretariat's Education Program by Wendy Davis, a British freelance editor and former teacher.
Source: Commonwealth Features
Feb/88.

**Requests for the 1988 Commonwealth Day Poster should be addressed to the Director of Information, Commonwealth Secretariat, Marlborough House, London, England, SW1Y 5HL.
***The Commonwealth Day Handbook for Schools, priced at 4 pence sterling, is available from the Commonwealth Secretariat Publications, Commonwealth Secretariat.

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New emphasis on conservation, farmers

Commonwealth agriculture ministers have asked the Secretary-General to launch a long term programme on conservation and development. Food and agriculture ministers, who met for a day just before the FAO conference in Rome in November, 1987, have also asked the CFTC to increase its support for agriculture, and the Secretariat's Food Production and Rural Development Division to give priority to small farmers.

The two-yearly FAO conferences give Commonwealth agriculture ministers the opportunity to preview issues of importance to the Commonwealth on the FAO agenda, and also to review Commonwealth programmes in food and agriculture. This meeting, held only three weeks after the Vancouver summit has taken forward some of the themes of the leaders' meeting in calling for sustained action on natural resources, conservation, food aid for emergencies and the alleviation of adverse effects on women of structural adjustment. It has called also for a closer focus on the role of agriculture in development, in order to reverse some worrying trends.

Growth slackens

The ministers' communique begins with a review of the state of world agriculture and its prospects. The pace of agricultural development, ministers conclude, has slackened, despite the now widely-accepted belief that agricultural development is the basis of all sound economic development. This slackening they find to be most marked in parts of Africa and Asia. The expansion in such critical inputs as irrigation has also slowed, as has official aid to agriculture. This has weakened development in domestic food production and in agricultural products for export.

The Vancouver Declaration on World Trade, which calls for the reform of all trade-distorting policies was welcomed by agriculture ministers who, like Commonwealth leaders, look to the new round of trade negotiations under Gatt as an opportunity to agree and implement long-term reform in agricultural trade.

Within developing countries, too, ministers noted with regret that there had been 'very little advance' in the alleviation of poverty. Public investment in agriculture was still too low, and reform was not making progress and women (frequently the poorest group of farmers yet the mainstay of domestic food production in many developing countries) still suffered

discrimination in such crucial areas as access to land, extension services and credit. Women also bore a disproportionate share of the burdens of economic adjustment programmes.

On the positive side, ministers were pleased to find that there was broad agreement among developing countries that agriculture was central to all development. Indeed some developing countries, acting counter to the trend, had translated this into action, having increased investment in agriculture; progress had also been made in matching extension services to the needs of small farmers and also in forging links between research and extension.

Fisheries and forestry

The FAO's work in following up the plans of the recent world fisheries and forestry conferences was noted by ministers. On fisheries, it encouraged member governments to pay special attention to artisanal fishing, especially

that involving women and young people, and supported initiatives to boost Third World trade in fish products and increase resources for fisheries development.

New tasks for the Secretariat

In reviewing the work of the Secretariat, ministers focused on the Food Production and Rural Development Division (the division servicing their meeting) and the CFTC, while advising also on the work of other parts of the Secretariat dealing with related or supportive activities.

In general, they saw the Secretariat as a very important vehicle for co-operation, because its technical assistance and training has been based on TCDC (technical co-operation among developing countries) for nearly two decades. While recognizing the serious constraints on the resources of the CFTC, they urged member govern-

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"Inseparable Humanity"

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stresses the common humanity of the people who share this one world.

It results from ceaseless journeyings and public speaking engagements, from London to Lagos and Lome, from Port of Spain to Paris, from Kuala Lumpur to Caracas. Many of these texts were delivered as campaign speeches in the battles for human equality, development and world peace, as well as against the scourges of poverty and apartheid.

The contents go as far back as 1971, to Mr. Ramphal's time as Minister with responsibility for Foreign Affairs of Guyana. With a truly internationalist concern for justice and equality, the opening sections explore the experience of Guyana — the exploitation of the poor by the rich, the powerless by the powerful. Mr. Ramphal draws on the experience of slavery and indenture in his native West Indies to illustrate the inequities of the human relationship.

But the West Indies are only the starting point. Skilful editing by Ron Sanders, former Antigua and Barbuda High Commissioner in London, underlines the essential consistency of the author's widening vision. The anthology broadens to the world stage with Shridath Ramphal's appointment as Commonwealth Secretary-General in 1975. But the world and its regions are seen to be always one, and the regional and the global quests for unity, justice and equality as inseparable as mankind's common humanity.

In the words of the distinguished West Indian economist Alister McIntyre, who contributes a Foreword, Shridath Ramphal is 'an international humanist' whose 'holistic view of the inter-relationships between national identity, Third World unity, human rights and peace... underpins his concept of Caribbean identity as a blending of many cultures held together by a common historical and political experience'.

The platforms are the Commonwealth's vanguard role in the worldwide campaign to end the racial injustice of apartheid, a lineal descendant of slavery, and its commitment to promoting the development of the poor. The latter channels his deepening concern for international equality and an end to poverty through co-operation between North and South. Finally, he looks to the future of the world, arguing that peace is much more than the absence of war and outlining the challenge still to be faced of making human society a civilized state.

*'Inseparable Humanity: An Anthology of Reflections of Shridath Ramphal', introduced and edited by Ron Sanders (Hansib Publishing, London).

"Inseparable Humanity" — published by Hansib Publishing - Hansib Publishing Ltd (Books), Unit 8, Caxton Hill, Hertford, Herts, SG13 7NE, England or The Caribbean and Canada Hansib Publishing, 22 Galsight Crescent, Scarborough, Ontario, Canada M1C 3S8. Source: Commonwealth Currents Aug/88.

Commonwealth Science Council hosts workshop

A workshop ethnobotany, the study of ethnic uses of plants, was held in Christchurch, New Zealand. It was arranged by the CSC in conjunction with New Zealand's DSIR and the local Maori community. About 100 participants attended. They came from the Commonwealth countries of Australia, Britain, Cook Islands, India, New Zealand, Solomon Islands, Tonga and Western Samoa, and the non-Commonwealth countries of Fiji, New Caledonia, Sweden and the United States.

This workshop brought together leading scientists and academics, concerned with ethnobotany, and the practitioners of ancient skills in the use of plants. Its purpose was twofold: to

share scientific knowledge of plants with the people who use them, and to educate scientists on the value which local people place on plants.

Much of interest was brought out, including the following:-

-About 80,000 plant species had been used for food, but only 150 have been developed as economic crops. Twenty species provide 90% of the world's food.

-A systematic examination of underexploited plants would reveal many with potential for use as food and medicine.

-Much of the existing information on many plant species is preserved within the cultures of indigenous peoples, and there is an urgent need to collect and record this information.

-Throughout the Pacific islands the supply of traditional plants used for weaving is decreasing.

-In New Zealand, scientists are extracting sugar from cabbage trees, and essential oils from local plants, like manuka and Kanuka, for use as perfumes.

Despite modern medicine, there are still people familiar with the art of healing through nature. In Western Samoa, a land famous for the healthy, fresh complexions of its women, papaya and papaw are used as beauty aids. "Apply a coat of mashed papaya to the face, leave it on for ten minutes, wash off with warm water, and then splash the face with cold water."

Source: Commonwealth Feature April/88.

The Commonwealth at Work

Over 100 boreholes were drilled in the Midlands Province of Zimbabwe last year (1987) enabling many families in the region, for the first time, to draw clean water, irrigate their crops and water their animals. In this, as in several other areas vital to Zimbabwe's development, technical assistance provided by Commonwealth experts proved timely and useful.

Midlands Province has 15 major dams of which the Inzukumani dam located 40 kms outside Gweru is the newest. The eight million cubic metre capacity dam is to serve 5,000 farmers growing maize, sunflower, millet, rapeseed and vegetables. Dam construction is only one aspect of the work, another is borehole construction; drawing safe and ready-to-use water from underground supplies. Requests for boreholes come from local government authorities and the rain failure in 1985-87 brought in a flood of such requests. One of the many boreholes constructed is the new diesel operated station at Mapanzure, 70 kms outside Gweru. Serving a village of 200 families, and located in a drought-prone area, this station pumps underground water to drawing points in the village.

There are four long-term Commonwealth experts currently working in Zimbabwe through the Commonwealth Fund for Technical Co-operation (CFTC). Created by Commonwealth leaders in 1971 to provide technical assistance to developing member countries, the CFTC fields

long and short-term experts to those countries experiencing a shortage of qualified nationals. At present some 170 experienced professionals are working in 46 countries, including Zimbabwe, one of the Front-Line States in southern Africa.

A Commission chaired by the Com-

monwealth Secretariat's director of education, Peter Williams, is currently examining a proposal for a second university in Zimbabwe which should help train more people for nation building.

Source: Commonwealth Feature July 88.

New emphasis on conservation, farmers

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ments to give priority to agriculture in requests and for the CFTC to consider expanding the proportion of resources allocated to agriculture. In mid-1987, 40 long-term CFTC experts (about 17 per cent of the total) were working directly in agriculture; in the previous year some 270 officials and technicians (12 per cent of trainees) received CFTC awards in this area. It should be noted that training in several other fields also benefits agriculture.

Ministers noted that Commonwealth leaders at Vancouver (1987) had asked the Secretariat to strengthen its technical assistance programmes in food management and food security. They also wanted more attention to the concerns of small and marginal farmers, especially in credit and marketing.

The Secretariat's study, Conservation for Sustainable Development, on the problems of soil erosion, drought and desertification in Africa, was commended by ministers; it had also been well received at Vancouver. Taking ac-

count of the study's recommendations, ministers urged the Secretary-General 'to develop and co-ordinate a long-term programme of action on conservation and development which takes full account of the social aspects of the problem with the objective of building national and regional institutional capacities in formulating and implementing environmentally sound conservation strategies and land use plans.' Ministers also urged member governments to provide technical or financial support to supplement the new programme.

Ministers commended the Secretariat's work in assisting agricultural rehabilitation in Africa. They welcomed the proposals by the Vancouver summit for a study on climatic change and natural calamities, and another on the impact of structural adjustment on women. They also approved the Secretariat's support for small countries, noting the help given to efforts by Caribbean countries to diversify their agriculture.

Source: Commonwealth Currents Feb/88.

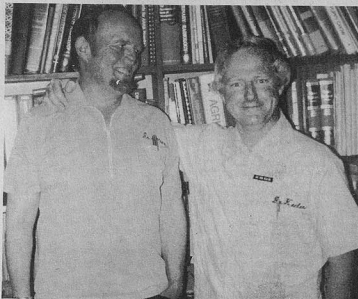
Two CwVA workers

We quote from the good humored remarks which accompanied the photo: "We were pleased to send 27 of Dr. Person's archaic south-of-the-border school texts**, and lots of Canadian Veterinary Journals, Journals of the American Animal Hospital Association, and Journals of the American Veterinary Association to veterinarians in Africa. As Dr. Keeler commented, 'We didn't understand what was in them anyway!'"

**No doubt Dr. Keeler's droll indication that his colleague and partner is a graduate of a United States veterinary school.

Drs. Person and Keeler may make light of what they did, but, without any doubt, it was a big time-consuming job. There was the collecting of the books and journals, the sorting them out, the boxing and wrapping, the addressing of the many parcels and then lugging them all down to a post office to finally get them on their way.

Their photo clearly shows the satisfaction they got from what they did, and what they did is tangible evidence of their concern for and goodwill to veterinary colleagues in the developing Commonwealth.



Two CwVA workers - Obviously in good humor are Mike Person (left) and Ken Keeler of the Delton Veterinary Hospital in Edmonton, Province of Alberta, Canada. The photo, of these two CwVA workers, is positive proof of the joy of a job well-done.

Did you know

The "Tropical Veterinarian", a journal published in Nigeria by the University of Ibadan, now has a new editor. He is Professor T.A. Arie of the Dept. of Anatomy at the University of Ibadan. Professor Arie is a former CwVA council member for Nigeria, he was a speaker and played an important role at the very successful 1987 CwVA Gambian seminar.

During the last week of July, 1988, a very attractive and informative brochure from the Guyana Veterinary Association arrived at the CwVA News Bureau. The brochure dealt with The 20th Biennial Veterinary Convention to be held in Guyana in November of last year (1988). The Caribbean Veterinary Association, the Canadian Veterinary Medical Association and the Commonwealth Veterinarian Association are all involved in these conferences. This brochure should have been reproduced in the July/88 issue of the CwVA News. "But" alas, that issue had already departed a fortnight hence to its sundry destinations throughout The Commonwealth.

The British Veterinary Association has recently appointed Dr. John Bleby as their new CwVA Council Member. Dr. Bleby, D. Vet. Med., DLAS and F. I. Biol, is associated with the Laboratory Animal Science Unit of the Royal Veterinary College.

As Dr. Bleby is, at present, the only representative in the region he assumes the responsibilities and duties of CwVA Regional Representative for the UK/Europe region. His appointment brings the CwVA Executive Committee up to full strength.

It is of interest to note that John has links with Cyprus through his involvement with the Army Reserve and hopefully he will be able to visit Cyprus in his army capacity and make contact with the Pancyprian Veterinary Association.

Dr. Bleby succeeds CwVA President Trevor Blackburn in both these positions. His address is: c/o Royal Veterinary College, Royal College Street, London NW1 0TU, England. Source: President's Memo 88/4

Although ticks have been known and recognized since biblical times, it was not until the second half of the nineteenth century, when the world cattle population increased rapidly to feed the human populations of the great industrial centres, that the diseases they transmit and their serious debilitating effect on cattle became a problem. Source: Cattle Tick Control/A Wellcome Publication

One of the historic homes in Northern Tasmania is the Woolmers House, built in the early nineteenth century near Longford Town. The river, South Esk, flows through the Woolmers property. In those early days the motive power, needed to raise water from the river into the storage tanks, was provided by an old white horse, called Bob. No supervision was required for Bob to walk around the windlass all daylong, with an hour off for lunch. It is still told that 'Bob' stopped punctually at noon, and that you could set your watch by his timekeeping. Source: Tasmania-Isle of Splendor by Bill Beatty

Coccidiosis in cattle

"There are a few things about the life cycle of coccidia that are helpful to know. The oocyst can only cause infection after sporulation, which takes a varying amount of time after it is excreted depending on the coccidia involved. For example, *E. zuernii* sporulates in 10 days at 54 degrees Fahrenheit and 3 days at 68 degrees Fahrenheit. Therefore, frequent cleaning of manure from a calf's environment will decrease exposure. Those short sporulation times indicate why coccidiosis is a disease of some very good, clean herds.

"The outcome of the disease depends on the number of sporulated oocysts that the animal ingests. About 125,000 oocysts will produce the disease in severe forms by the 18th day. One thousand oocysts could result in the destruction of 24 billion intestinal cells under ideal conditions. The oocysts release sporozoites, which invade the cells of the small intestine and develop into meronts. Meronts undergo splitting or asexual fission in the host cell, and hundreds of meronts result which are released by the cell. This whole process

happens one more time so that by day fourteen, hundreds of thousands of meronts have left the host cell and enter the sexual phase of development.

"The break-out of the second generation meronts causes most of the tissue destruction that the practitioner sees as diarrhea 17 days after the initial infections. This, also, is the point that severe lesions of coccidia are first found. Basis of prevention - do all you can to prevent sporulated oocysts from being ingested.

Cryptosporidiosis in Cattle

Although cryptosporidia are coccidia, these parasites differ in many ways from *Eimeria* species of coccidia which cause "coccidiosis". Some important characteristics of cryptosporidia are:

1. Cryptosporidium oocysts sporulate within the intestine and are excreted in the infectious state. Therefore:

a. They can readily infect other animals and cause diarrhea at an early age (within 2-7 days after ingestion).

b. Removing manure every 2-3 days (which is helpful in preventing

coccidiosis) is not adequate to prevent cryptosporidiosis.

2. Cryptosporidia can be a primary pathogen; however, they are often found to be part of a mixed infection along with other pathogens, such as coronavirus or rotavirus.

3. Cryptosporidia are transmitted from animals to man, therefore good hygiene and sanitation should be practiced when handling calves. Immunologically deficient individuals are particularly susceptible to infection by cryptosporidia and should not work with animals having the potential of shedding these organisms.

4. There are presently no antimicrobial drugs known to be effective against cryptosporidia. Therefore, treatment of cryptosporidiosis must consist of supportive therapy, and prevention must be based on strict sanitation and other management procedures that will prevent fecal-oral transmission among calves.

— taken from Dr. Mike Brunner, Veterinary Update, Cornell Veterinary Extension Newsletter, Winter, 1988. Source: Veterinary Professional Topics.

Bovine Viral Diarrhea Virus

The following information is from a review article entitled "New Concepts in the Pathogenesis, Diagnosis and Control of Diseases Caused by the Bovine Viral Diarrhea Virus. The authors are Otto M. Radostits and Ian R. Littlejohns."

"The virus causing bovine viral diarrhea (BVD) and mucosal disease (MD) is distributed worldwide. It usually causes a benign infection resulting in minimal clinical changes, sometimes recognized as BVD, but is also consistently associated with fatal MD."

Abstract (Can Vet J June/88). Quote: "The new information on the pathogenesis and epidemiology of mucosal disease of cattle is reviewed. It is now known that clinical mucosal disease occurs in cattle which were infected with a pestivirus in early gestation and were born with persistent viral infection and specific immunotolerance. These animals may be clinically normal at birth but may develop fatal mucosal disease, perhaps following superinfection with another pestivirus, usually between 6 and 24 months of age. They may also remain clinically normal indefinitely and breed successfully. The progeny from persistently infected females will similarly

be viremic, and maternal families of such animals can be established.

Congenital defects may occur when infection of the fetus occurs in mid-gestation. Although fetuses may be infected in utero in late gestation, the infections do not persist, the fetuses develop antibodies, and they appear to suffer no ill-effects. Postnatal infection can result in subclinical disease (bovine virus diarrhea) with a normal immune response. The virus may also be responsible for enhanced susceptibility to other infections, diarrhea in newborn calves, and reproductive failure.

Prevention of the economically important diseases caused by the virus is dependent upon the identification and elimination of persistently viremic animals, which are reservoirs of infection, and the vaccination of immunocompetent females at least three weeks before breeding. However, because of serotypic differences between strains, there is some doubt whether vaccination will reliably provide protection against the transplacental fetal infections that are important in the pathogenesis of this disease. There is no substantial evidence to warrant the vaccination of feedlot cattle."

Source: Can Vet J June/88.

WANTED

A theme for

A

Pan-Commonwealth
Conference

Send in your

suggestion

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Each year we suffer periods of heavy dust often lasting two or three days in a row, starting in December and continuing throughout March. Some days the air is so thick with dust that one can hardly see anything at a distance ahead.

People suffer from diseases of the respiratory system, and coughing is heard frequently. Older people say that the dust problem has come increasingly more frequent during recent years than when they were growing up. No scientific data, however is available to support their views.

The fine dust is not sand as believed by many, but fine soil particles containing nutrients. These particles are carried over great distances. During a flight from Dakar to Cape Verde Islands last February I have observed that the ocean was covered with dust cloud all the way more than 600 km, making the sea invisible. What a loss of good African soil being blown away from Sahelian countries!

Most of the dust seen in The Gambia probably comes from Senegal or Mali, but some may originate from the North Bank of The Gambia, where wind erosion is most likely to take place. The huge groundnut area in North Bank Division is characterized by being much more open land than other parts of The Gambia. Trees and mechanization do not go well together, and work in groundnut fields is more mechanized and has been mechanized longer than other crops. Still, the situation may become much worse if - or when - farmers start removing the perennial weeds, which cover parts of the fields during the dry season - and which certainly have a stabilizing influence on soils.

The importance of trees in agriculture is obvious and farmers are well aware of this. They want to keep trees in the agricultural area, but only such tree species which serve other purposes useful for them: leaves or fruits to be eaten or used for medicinal purposes, bark to be used for ropes, leaves and pods useful as cattle feed, etc. Only seedlings of such tree species are protected against livestock grazing throughout the dry season.

Other tree species are cut for timber or fire wood. Old trees which are difficult to cut are left in the fields until they die.

Not only cutting but also bush fires reduce the number of trees in The Gambia landscape. Bush fires are very common in spite of being illegal. Most of the fires are put on by farmers who believe that important insect pests are killed by the fire.

**By Dr. Ole Zethner
FAO Senior Expert
CILSS Integrated
Pest Management Project
Dust, Trees and Agriculture**

There is no evidence for such a belief. An example of this is the case of blister beetles which are believed to feed on the leaves of certain trees species during the late dry and early wet seasons. The Integrated Pest Management Project has proven that blister beetles do not belong to the species which damage cereal crops. Anyhow, burning the bush will not help reduce the population of blister beetles as some farmers think. It is an obvious job for extension workers to inform farmers about this fact, in the hope of reducing the incidence of bush fires.

The disappearance of trees is a slow process which may not be fully recognized over a period of several years. But then suddenly the process starts going on at a faster speed as has already happened in some other Sahelian countries. This process is taking place in The Gambia today. There appears to be plenty of firewood left, but the old trees are there to take their place. If the trees go, the rain goes too.

Frequent bush fires are gradually weakening even grownup trees, so they die during the next drought period (as was the case 1983). Farmers might

substitute some of the products earlier obtained from trees with nylon ropes, imported medicine, etc., and find it necessary to increase their groundnut production by more mechanization and cutting down trees to earn the extra cash needed to buy such substitutes.

But how about the cost on the fauna and flora!

It is high time to take actions if The Gambian environment shall remain safe from wind erosion and other calamities. It is indeed a much better idea to build on the existing resources rather than to have to plant new trees, in a few years time, at a high cost and with a limited choice of species suitable for planting.

To reverse the present "development" one must rebuild an agricultural system where trees play an integral role and where the trees remain useful for the farmers. Agro-forestry, as systems of integrated agriculture and forestry are called now-a-days, is not utopia even in Sahelian countries where farmers over the centuries have grown crops under tree canopies, and where their cattle have benefited from leaves, pods and shades of many tree species.

Extension workers have a very important and difficult task in today's Gambia: to assist farmers to increase crop production and at the same time ensure that The Gambian soils do not disappear as dust.

Source: Senelaa Apr/87

Did you know

When man began his farming operations in the dawn of history, the goat was the Kingpin of pastoral life, making possible the conquest of desert and mountain and the occupation of the fertile land that lay beyond. The first of man's domestic animals to colonize the wilderness, the goat is the last to abandon the deserts that man leaves behind.

One of the great values of the goat lies primarily in its ability to convert to milk herbage that no other domestic animal can utilize. Goats commence their breeding season when the hours of daylight decrease and the hours of darkness increase at a certain critical speed. This critical rate of change is reached earlier in the year the nearer you go to the Land of the Midnight Sun.

Some of the feral goat herds along the west coast of Scotland are pure white. Local tradition attributes their origin to ships, of the defeated Spanish Armada, which sought refuge along that coast. However it is equally likely that they owe their origin to Scandinavian seafarers, in whose homeland the white

Telemark goat has long been popular. It is altogether appropriate to believe that the Vikings appropriated their heroics on a diet of goats' milk and Kid. Goats are the most keen sighted of all our quadrupeds and their snorting whistle of alarm carries afar. For that, feral goats in the Highlands of Scotland have long suffered from the stalker's rifle.

The goat is, by its nature, the symbol and mascot of subsistence agriculture. It is first and foremost a household provider and in this role its most useful characteristics find their fullest expression. Source: Goat Husbandry by David MacKenzie

The brutal maltreatment of children by South Africa's apartheid regime has been highlighted by international follow-up action to the conference in Zimbabwe last September, (1987) which first fully exposed the horrific facts.

An invitation

Dear Colleague,

It gives me great pleasure to invite you to the Second International Seminar for Educators and Administrators of Animal Health Assistant Courses, jointly organized by the Commonwealth Veterinary Association and the Indian Veterinary Association from February 24th to 26th, 1989. The shortage of animal protein in the diet of people of the developing countries, due to drought and famine in Asia and parts of Africa, necessitates efforts to develop and maintain disease-free livestock in these regions. This can be achieved only through the efforts of veterinarians and their auxiliary staff, who help them in the implementation of the various programmes. While the minimal standards and qualifications for veterinarians are well established, there is need for more information regarding the training programmes of animal health assistants, who play a very important role at the grass roots level. The object of this seminar is to obtain information on the training of animal health assistants, in different countries of Asia and South Pacific Regions. This is essential in formulating a co-ordinated action plan for animal health coverage in the countries of these regions. The first seminar at

Gambia in 1987 covered the African Continent, it is now hoped that with this second seminar, most of the developing countries of the Asian and Australasian regions will benefit and a global picture of the role of animal health assistant will emerge. The Organizing Committee cordially invites you to participate in the proceedings of this Seminar.

The papers will be presented in conventional oral form (20 minutes per paper). Poster presentation is also welcome.

Signed:

S. Abdul Rahman (Convenor).

Complete information available from:

Mr. J.T. Blackburn, co British Veterinary Assoc., 7 Mansfield Street, London, England W1M 0AT.

Dr. S. Abdul Rahman, Gen. Sec-Indian Veterinary Assoc., No. 123, 7th Main Road, IV Block (West) Jayanagar, Bangalore-560 011, India.

Dr. W. J. Pryor, 'Galwiji', Pryor's Road - Scotsburn, RMB 141, Buninyong, Victoria, Australia 3357.

Dr. J. Archibald, 35 Lynwood Place, Guelph, Ontario, Canada N1G 2V9.

Did you know

A writer in the *Agricultural Ledger* of 1897 describes a number of instances in Australia of wholesale deaths from tick-borne fever, including one in which 4,000 of a herd of 6,000 died while the owner was travelling from Tasmania to Townsville, in Queensland, for help. These losses followed the introduction of fever-carrying *Boophilus microplus* into Australia from Java in 1872. Source: Cattle Tick Control/A Wellcome Publication

Did you know that the Arachnological Research & Information Centre of Switzerland estimates that every year over seven and a half million people, throughout the world, are bitten by venomous creatures and that over 200,000 of these cases are fatal. Source: ZVA News June-July/88

Increased outbreaks of food poisoning in the United States caused by *Salmonella enteritidis* have been associated with Grade 'A' shell eggs or food containing such eggs. In Canada however, although human illness caused by *S. enteritidis* tripled between 1983-1986, no relationship has been identified between this increase and *Salmonella* contaminated eggs. Source: Safety Watch - spring/88

2nd International Seminar For Educators and Administrators of Animal Health Assistant Courses

Feb. 24th to 26th — Bangalore, India.

Organized by the Indian Veterinary Assoc. & the Commonwealth Veterinary Assoc.

Registration fee — for delegates Rs. 500/-

— for others Rs. 300/-

Rs. 14/- = 1 US \$

Seminar speakers from many Commonwealth countries.

Among those expected are, from: Australia - I.G. Davis; Bangladesh - Fazlul Hoque; India - B.C. Ramakrishna and A.K. Basu; Malaysia - Mustaffa Babjee; New Zealand - E.H. Shortridge; Papua New Guinea - M.J. Nunn; Solomon Islands - Collin McQueen; Sri Lanka - D.D. Wanasighne and L. Goodwin; United Kingdom - Peter Robinson; Vanuatu - P. Bazeley.

Key note speakers: J.T. Blackburn (UK); C.H. Giam (Singapore); W.J. Pryor (Australia) and H.B. Shetty (UK)

Pan-Commonwealth Conference

The Commonwealth Veterinary Association, an active member of the Commonwealth Professional Associations group, has a growing membership, an increasing influence on development policies, and a burgeoning potential for good works in the Developing Commonwealth. This has come about through the active cooperation and steadfast efforts of member veterinary associations and the CwVA Executive. The foundation of it all has been the support of and encouragement from the Commonwealth Foundation. Veterinarians, throughout our Commonwealth, are well aware of the vital role that the Foundation has played in bringing solidarity to all the Commonwealth, and hope, encouragement and cooperative assistance to so many of its less affluent peoples.

There is a growing awareness of the importance and necessity of soon holding a Pan-Commonwealth CwVA Conference. The Executive has now turned some of their energies in that direction. Information, compiled from questionnaires completed by council members, is presented here for consideration by all Commonwealth veterinarians. PLEASE READ IT and forward your comments and suggestions to your national veterinary association so that your opinions and contributions can be forwarded, through your CwVA council member, to the CwVA Executive Committee.

The following member associations are indicated willingness to host such a conference. Their membership is shown in brackets. The capacity of conference facilities available is indicated. Their actual preference of venue or times is given.

The following have conference facilities, capable of accommodating 100 or more delegates:

Australia (3250) - prefers Australia or the United Kingdom.

Canada (3600) - agreeable to majority choice.

Kenya (300) - prefers Kenya.

Malaysia (300) - prefers Kuala Lumpur or Malaysia.

New Lanka (225) - prefers Sri Lanka, United Kingdom, Canada or Australia.

Kenya (250) - prefers the United Kingdom.

United Kingdom (8375) - prefers Africa or Asia.

Zimbabwe (80) - prefers Zimbabwe, Mauritius or the United Kingdom.

The following have conference facilities of less capacity:

Botswana (26) - facilities for 50 - prefers Botswana.

Caribbean Vet Assoc. - facilities for 100 plus available on several islands - prefers the Caribbean or Canada.

India (30,000) - facilities for 500 - prefers India.

Malawi (35) - facilities for 200 - prefers Malawi.

Mauritius (24) - facilities for 300 - prefers Canada or the United Kingdom.

Tanzania (300) - facilities for 700 - prefers Tanzania.

The Gambia (16) - facilities for 100 - prefers Zimbabwe.

In most cases facilities are available in several locations.

The following are, at present, not prepared to host such a conference, but indicate a preference of venues:

Ghana (102) - prefers Kenya.
New Zealand (250) - prefers Asia or the Pacific region.

Singapore (58) - prefers Australia or the United Kingdom.

Solomon Islands - prefers India.

Swaziland (15) - prefers Australia.
Western Samoa (4) - Australia or New Zealand.

Coming Events

INTERNATIONAL MEETING OF SHEEP VETERINARIANS

Feb. 13-16 / Massey University
Enquiries: Dr. R.C. Gumbrell, P.O. Box 24, Lincoln, Christchurch, New Zealand.

SATELLITE SEMINAR OF ABOVE MEETING

Feb. 20-21 / Lincoln College
Enquiries: Dr. R.C. Grumbrell, P.O. Box 24, Lincoln, Christchurch, New Zealand.

CwVA INTERNATIONAL SEMINAR - A.H.A. TRAINING

Feb. 24-26 / Bangalore, India.
Enquiries: Dr. S. Abdul Rahman, Gen-Sec IVA, No 123-7th Main Road, IV Block (West) Jayanagar, Bangalore 560 011, India.

Mr. J.T. Blackburn, c/o BVA, 7 Mansfield St., London W1M 0AT, England

Dr. W.J. Pryor, 'Galwiji', Pryor's Road, Scotsburn, RMB 141, Buninyong, Victoria, Australia 3357.

Dr. J. Archibald, 35 Lynwood Place, Guelph, Ontario, Canada N1G 2V9

AUSTRALIAN VETERINARY ASSOCIATION -

ANNUAL CONFERENCE

March 28 - Apr. 1 / Perth, Western Australia

Enquiries: Aus. Vet. Assoc., C/ -AVA House, 134-136 Hampden Road, Artarmon, New South Wales 2064, Australia.

COMBINED WSASA/BSAVA CONGRESS

March 30 - Apr. 2 / Harrogate Inter. Conf. Centre.

Enquiries: Dr. C. Artingstall, 5 St. Georges Terrace, Cheltenham, Glos., GL50 3PT, England.

5TH INTERNATIONAL SYMPOSIUM OF THE WORLD ASSOC. OF VETERINARY LABORATORY DIAGNOSTICIANS

June 26 - 30 / Guelph, Prov. of Ontario, Canada.

Sponsored by the CAVP / Hosted by the Univ. of Guelph.

Enquiries: - Dr. Tony van Dreumel, OMAF - Vet Lab Services, Box 3612, Guelph, Ontario, Canada N1H 6R8.

DAIRY CATTLE SOCIETY SEMINAR

June 28 - 30 / Taranaki Country Lodge, New Plymouth

Enquiries: Brian Milestone, C/NAF, New Plymouth, New Zealand

INTERNATIONAL CONF. ON THE APPLICATION OF BIOTECHNOLOGY TO LIVESTOCK IN DEVELOPING COUNTRIES

Sept. 4-9 / Centre for Tropical Veterinary Medicine, Univ. of Edinburgh, Scotland, U.K.

Enquiries: Mr. A.G. Hunter, C.T.V.M., Easter Bush, Roslin, Midlothian, EH25 9RG, Scotland, United Kingdom.

THE COMMONWEALTH VETERINARY ASSOCIATION

Serving in the Commonwealth for 21 years.

A creative Commonwealth partnership, of small and large veterinary associations, searching for pragmatic responses for the problems of its developing members, large and small.

Working cooperatively so that developing partners may become self-reliant.



The world is a dangerous place in which to live. Not because of the people who are evil, but because of the people who don't do anything about it.

Source: Albert Einstein.

SUPPORT THE CwVA AND ITS DEVELOPMENT PROJECTS.