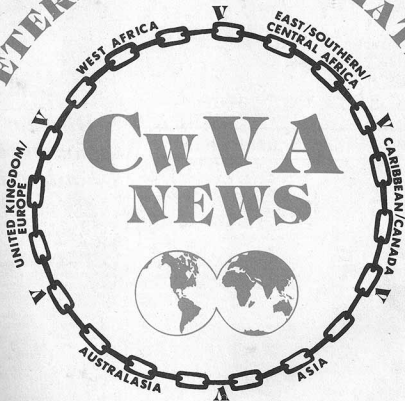


COMMONWEALTH VETERINARY ASSOCIATION



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

Publishers generously support CwVA Book/Journal program

Friendly publishing houses recently stepped forward, with valued help, in support of the CwVA Book and Journal programme. Among these companies, whose publications include veterinary texts and reference books, were Lea & Febiger of Philadelphia, U.S.A.; Update-Seibert Publications Ltd. of

Guildford, England and W.B. Saunders Co. of Philadelphia, U.S.A. They sent recently published veterinary texts to CwVA offices with a view to having them reviewed and then passed along to veterinary school libraries or animal health and production institutions in developing Commonwealth countries.

Four such reviews are included in this issue of the CwVA News.

The CwVA wishes to acknowledge these generous gestures, of genuine concern, by these publishing houses. The CwVA also thanks those individuals who cheerfully and willingly donated their time to conduct these reviews and submit their findings. Among those involved in this task were Dr. Denna Benn of Guelph, Canada (University of Guelph); Dr. John Campbell of Wingham Veterinary Clinic, Canada; Dr. D.C. Crober of Truro, Canada (Nova Scotia Agricultural College) and Dr. G. Sumner-Smith.

A caring Queen

The Queen cares about people; that is what has made her great and what has made her so effective in Commonwealth affairs. (Zambian President Kenneth Kuanda).

We share a certain background. Her Majesty represents that continuity, and change, because her role has changed too. (Singapore Prime Minister Lee Kuan Yew).

We need the Queen, Head of our Commonwealth, to call us from time to time not just to order but to ambition. (Secretary-General Shridath Ramphal).

Director of Commonwealth Foundation

Inoke Faletau, former High Commissioner for Tonga in London, is Director of the Commonwealth Foundation.

Mr. Faletau served the Government of Tonga as a public servant and diplomat from 1958 until 1982. For two years prior to this Commonwealth appointment he had been Director of the Management Development Programme of the Commonwealth Secretariat.

Appointed High Commissioner in London in 1972, he extended his country's diplomatic relations in Europe. He was currently appointed Ambassador to ten countries accredited to the EEC, UNESCO and FAO. By 1982, he was Senior High Commissioner and Doyen of the Diplomatic Corps in London.

As High Commissioner in London, Mr. Faletau was associated with the Foundation as its Governor for Tonga. He has served as Chairman of both the Board of the Commonwealth Fund for Technical Cooperation (CFTC) and the Commonwealth Secretariat Finance Committee.

The Foundation, established in 1963, supports professional activity and cooperation within the Commonwealth. It is financed by governments, and its current target is 1.46 million pounds. Its activities are guided by a Board of Governors representing member governments, with Mr. Ulric Cross from Trinidad and Tobago, as Chairman.

Source: CASAS News/Number 15.

People of the Commonwealth

Country	Population	Country	Population
Sierra Leone	3,200,000	Antigua and Barbuda	77,000
Singapore	2,500,000	Australia	15,500,000
Solomon Islands	250,000	Bahamas	250,000
Sri Lanka	15,200,000	Bangladesh	93,000,000
Swaziland	670,000	Barbados	260,000
Tanzania	20,000,000	Belize	160,000
Tonga	100,000	Botswana	998,000
Trinidad and Tobago	1,200,000	Brunei	250,000
Tuvalu	8,000	(Cameroun)	
Uganda	13,500,000	Canada	25,000,000
United Kingdom	56,500,000	Cyprus	650,000
Vanuatu	125,000	Dominica	80,000
Western Samoa	160,000	Fiji	660,000
Zambia	6,000,000	The Gambia	690,000
Zimbabwe	7,500,000	Ghana	12,200,000
Anguilla	6,500	Grenada	120,000
Bermuda	55,000	(Guinea)	
Cayman Islands	20,000	Guyana	800,000
Christmas Island	3,000	India	720,000,000
Cocos Islands	320	Jamaica	2,250,000
Cook Islands	17,500	Kenya	18,200,000
Falkland Islands	2,000	Kiribati	60,000
Gibraltar	31,000	Lesotho	1,500,000
Hong Kong	5,500,000	Malawi	6,500,000
Montserrat	12,000	Malaysia	14,600,000
Niue	3,000	Maldives	170,000
Norfolk Island	2,200	Malta	360,000
Pitcairn Islands	61	Mauritius	990,000
St. Helena	7,500	Nauru	8,000
Tokelau	1,500	New Zealand	3,200,000
Turks and Caicos	8,000	Nigeria	91,000,000
Virgin Islands	12,600	Papua New Guinea	3,200,000
Guernsey	56,000	St Kitts-Nevis	53,000
Isle of Man	20,000	St. Lucia	125,000
Jersey	77,000	St. Vincent and the Grenadines	115,000
		Seychelles	64,000

Did you know that well over 60,000 of these people are veterinarians?

Commonwealth Media Development Fund

In 1980 Australia was instrumental in establishing the Commonwealth Media Development Fund (CMDF). The CMDF supports, assists with and organizes training programmes for journalists, media managers and workers in the fields of television, radio and newspapers. Assistance from CMDF is administered by the Commonwealth Secretariat's Information Division. In 1986 the CMDF was active in various countries such as Malaysia, Zimbabwe, Jamaica, Trinidad, Zambia, Ghana, Tanzania and Nigeria.

The South African Extension Unit, the Commonwealth's distance education scheme for South African refugees, had its formal launch in mid-March, 1986. Three months later, by June, it

was operating four centres in Tanzania, providing instruction in English, maths and agriculture.

Commonwealth Liaison Units, linking voluntary bodies with each other, governments, and other countries in their region, are being set up in member countries. The aim is to draw NGOs, which already make a considerable contribution to social and economic development, closer together and to the mainstream of decision making.

A Commonwealth Africa meeting of education specialists held in Zimbabwe in 1986 examined alternative approaches to education for young people who cannot get to secondary school. The problem arises from the high de-

mand for education and a dramatic expansion of primary schools.

The Commonwealth Youth Programme, now over 13 years old, is best known for the activities of its centres in the Caribbean, Africa, Asia and the Pacific. These centres have trained thousands of youth workers. These workers have in turn helped other young people obtain skills and jobs or set up as entrepreneurs. These young people have then been able to take part in community self-help projects, contribute to national social and economic debate and to find ways to ease the transition to adulthood by understanding the need for rules and teamwork in work and play.

Source: Commonwealth Currents June/86

Commonwealth Today has new look

The first issue of the re-named magazine 'Commonwealth Today' made its appearance this past November (1986). Readers will find articles, interviews and comments on a variety of subjects of much concern and interest to the Commonwealth and its people.

The publisher, Anthony Axon, promises that future issues will see the steady development of 'Commonwealth Today' towards a more relevant and readable record of this hugely diverse and varied organization, the Commonwealth. Judging from the November issue, with sections on Trade, Aid and Economics, Science and Technology, Arts and Books, and the Commonwealth Report, Mr. Axon's promise will be lived up to.

In the November issue, the Trade, Aid and Economics section carried a fascinating look at rural life in Bangladesh. This is the first of a series

of special reports under the heading of 'Views from the Village'. The 'Commonwealth Report' section aims at providing a comprehensive round-up of events and developments within the Commonwealth nations and the many Commonwealth organizations.

For a final comment we quote from a message by Mr. Axon. "Like the organization it reflects, 'Commonwealth Today' is a unique magazine with a unique group of readers. We hope to be able to maintain the magazines' traditionally high standards of journalism and usefulness to its readers."

Commonwealth Today is published by World of Information in association with The Royal Commonwealth Society and The Commonwealth Foundation. Persons interested in a subscription should write to World of Information, 21 Gold Street, Saffron Walden, Essex, United Kingdom, CB10 1EJ.

CAETA aims to increase professionalism

One of the aims of the Commonwealth Association for the Education and Training of Adults (CAETA) is to increase professionalism of educators and trainers of adults and to strengthen the bonds between the different parts of the Commonwealth. Recently the words 'and training' were added to the title of the Association. This was done to emphasize the need to recognize industrial and income-generating training programmes, training for the unemployed and other such schemes as vital and integral parts of the field of adult education.

CAETA has moved from Norwich to Reading. Here, in an educational environment which is by its nature more supportive of CAETA's work, they were able to arrange a longer term headquarters with the cooperation of the University of Reading's School of Education, which houses the Agricultural Extension and Rural Development Centre.

CAETA's address at Reading is CAETA, School of Education, University of Reading, London Road, Reading RG1 5AQ, England.

Source: CAEFA Newsletter No. 4 1986.

CASAS striving to improve communication

The Commonwealth Association of Scientific Agricultural Societies (CASAS) came into being in July of 1978 on the campus of the University of Regina in the Province of Saskatchewan, Canada. The formation of CASAS was made possible by generous grants from the Commonwealth Foundation and the Canadian International Development Agency (CIDA).

The underlying driving force was a desire to improve communications among agricultural science people throughout the Commonwealth. In

other words Canadian and other Commonwealth agricultural societies strove for a way to keep in regular touch with one another. Their newsletter, written from material that is collected by their secretariat from constituent societies, is considered to be one of the more important ways to share news and information. This newsletter, the CASAS News, is published by CASAS Secretariat, 24 Seymour Avenue, Nepean, Ontario, Canada, K2E 6P2.

Source: CASAS News No. 15.

Agriculture ministers stress technical assistance

The Secretariat is poised to offer governments more short-term technical assistance in food production. Agriculture ministers, meeting in Rome in November on the eve of the FAO's biennial conference, discussed the trend in the Secretariat towards more operational assignments, and endorsed it. Their wide-ranging consultations covered the world food situation, co-operation among Commonwealth countries to improve it, the Commonwealth Action Group on Africa, the Asia-Pacific agriculture group, the Commonwealth Forestry Conference and the work of the Secretariat.

World food situation

In their communique, ministers acknowledged that, despite an overall increase in food supplies, the world food situation has deteriorated since their 1983 meeting, and parts of the world are threatened by famine. Although some Commonwealth developing countries in Asia and the Pacific raised food production, generally elsewhere population growth is negating improvements. Ministers recommended that governments tackle agriculture and population issues simultaneously. But on the larger factors which hamper growth - debt, interest rates, disadvantageous terms of trade and protectionism - they found that only concerted international action could bring any relief.

The measures they proposed include increased assistance for agriculture, especially in Africa, resolving pro-

blems over the Second Replenishment of IFAD and support for the concept of world food security. They called also for triangular food aid purchases to help African developing countries in surplus find markets, and for developed countries to accept more responsibility for the impact of their agricultural policies on the weaker markets of developing countries.

Africa

The work of the ten-country Commonwealth Action Group on Africa and its report African Agriculture: Building for the Future were approved and endorsed by Heads of Government at Nassau, who urged speedy implementation of its recommendations. Food ministers at Rome carried this further. They supported the proposal of the Group for a high-level colloquium on agricultural policies, and welcomed Zimbabwe's offer to host it. They also agreed to the Group's plan for a study on the scope for Commonwealth action on soil erosion, desertification and drought. And they asked the Secretariat to help governments design more programmes for women farmers.

The Secretariat services the Group, and has also been extending its work in African agriculture. And the CFTC, with its experts, training programmes and consultancy services, has also stepped up activity in this area. The CFTC has earmarked 350,000 pounds this year for projects arising out of the plans of the Group.

One small project shows how one country's expertise can be used to help another: Zimbabwe has recently developed a soil-loss estimation model. This analyses soil-erosion problems of a type found also in Malawi. At the Malawi Government's request, the Secretariat organised a fortnightly study visit in Zimbabwe for two Malawian officials which, the Malawi Government reports, has been of great value in Malawi's conservation planning.

Also in quick response to government request, in November the Secretariat organised a workshop in Lusaka on agricultural policy formulation and project management. In line with the Action Group's mandate to focus on getting the best value from international responses to Africa's food crisis, the workshop aimed to help officials use aid funds to the best advantage.

Asia and the Pacific

Food ministers at Rome were pleased with the smooth running of the Consultative Group on Agriculture for Asia-Pacific Commonwealth countries. This group was set up by Heads of Government of the region at their meeting in Fiji in 1982 and is hosted by Sri Lanka. Its priorities are skills development, co-operation in research and project management, technology exchanges and sharing information. Despite a slow start in 1983, the Group has carried out the five projects and two reviews.

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Secretariat to issue adult learning manual

A manual on learning resource centres for rural areas, accompanied by a training guide, is to be issued by the Secretariat in July. Experts in several key fields met in Malawi in January to discuss and revise the Secretariat's draft for the manual, prepare the guide, and develop a distribution network for both publications.

This project arose out of a widespread concern that many of the ambitious goals set in adult education, literacy and health and agriculture extension were not being met in rural areas. Traditional library-centred activities, which rely on books, card catalogues, mobile libraries, and a skilled staff to provide a service, are often not viable or appropriate for rural communities.

The experts at the workshop endorsed the concept of overcoming the problem at community level by mobilising

the community within its social and cultural structures, and linking adult learning programmes with them through a learning resource service based at a school or community centre. The manual shows how such a service could be built up and operated locally, providing a small but continually renewed source of appropriate materials for literacy, numeracy, community development and agriculture and health extension. Subjects covered would include agriculture, mother and child health, nutrition, appropriate technology, national and local projects and administrative structures. The service could operate in partnership with other activities such as film shows, reading groups, cultural activities and the preparation and production of community newspapers.

The experts at the workshop were drawn from adult education, communi-

ty development, librarianship, and agriculture and health extension programmes in 12 Commonwealth countries. They revised the draft text of the manual, helped design the guide for the training of community members to set up and operate resource centres, and developed a distribution strategy. The publications will be ready for the Standing Conference of East, Central and Southern African Librarians, to be held in Botswana in August, whose theme this year is "Libraries and Literacy". Interest has also come from many organisations including the Commonwealth Library Association, whose executive, meeting recently in Singapore, is encouraging local associations to hold training workshops based on the manual.

Source: Commonwealth Currents April 1986

Stress technical

from page 4

planned for its first two years, and has helped cement links between countries. Six further projects, which include discussions among senior people in training, research, and specialised technical fields such as seeds and rainfed farming, have been agreed for the next two years.

The role of the Secretariat

Responsibility for the Secretariat's work in food production falls on the CFTC and the Food Production and Rural Development Division and Science Council.

In the past, the Food Production Division has concentrated on consultations and training and exchange of experience while the CFTC provided expert assistance and training. With the closer integration of the CFTC with other parts of the Secretariat, and the growing emphasis on fieldwork by member governments, both Secretariat organs have been increasingly drawn into helping individual governments meet particular problems on the ground, and Food Production Division staff have taken on more short-term operational assignments, supporting the CFTC. This ad hoc development has now been formalised by ministers. Ministers also welcomed the increased emphasis, in CFTC programmes, on agriculture.

At the same time, the Secretariat's broader regional and pan-Commonwealth programmes - in rural credit, fisheries, livestock, planning, management skills, etc - and its studies and directories are to continue. So is its special emphasis on assisting small countries. All these activities focus on small farmers. Given the consequent need to expand programmes, ministers have called for increased resources for this work.

Source: Commonwealth Currents February 1986

French speaking members

Commonwealth countries attending the Versailles meeting of the ACCT were Canada, Dominica, Mauritius, St. Lucia, Seychelles and Vanuatu. The Paris based ACCT (Agence de Coopération Culturelle et Technique) is a French speaking organization involved in development, education, research and communication in the French speaking countries of the Third World. The ACCT has been compared with the CFTC.

Source: Commonwealth Currents April 1986

UNIVERSITY OF EDINBURGH CENTRE FOR TROPICAL VETERINARY MEDICINE Diploma/MSc POSTGRADUATE COURSES

The following courses will be available

(i) TROPICAL VETERINARY MEDICINE. This course is designed for field veterinarians aiming at the senior and middle ranks of veterinary services in developing countries. It deals with the prevention and control of animal diseases at regional and national levels and has a strong epidemiological component. Related aspects of animal productions and veterinary public health are also covered.

(ii) TROPICAL VETERINARY SCIENCE. This is a course for veterinarians, which is mainly concerned with the laboratory diagnosis of diseases of animals including poultry and wildlife in developing countries. It also includes the organization and management of tropical veterinary laboratories and the epidemiology of the major diseases of animals.

(iii) TROPICAL ANIMAL PRODUCTION AND HEALTH. This course which is organized in conjunction with the University's Department of Agriculture is open to agriculture or veterinary graduates intending to specialize in animal production in developing countries. It provides a comprehensive review of the main constraints to animal production likely to be encountered in these countries with an indication of how they may be overcome.

Candidates are registered as Diploma/MSc students. All students take the same course from October to June. Students who attain a required standard in the June examination may continue for a further 3 months during which time they prepare and present a dissertation for the MSc degree. Students who do not reach this standard but who achieve the necessary marks will be awarded the Diploma and complete their studies in June. Students who do not reach the Diploma level in June may resit the Diploma examination in September.

Application forms and further information can be obtained from the Dean, Royal (Dick) School of Veterinary Studies, Summerhall, Edinburgh EH9 1QH, Scotland. Applications should be returned by March 31st (but preferably earlier as the courses are usually over-subscribed) for admission in the following October.

Any further details can be obtained from the Director of the Centre for Tropical Veterinary Medicine, Easter Bush, Roslin EH25 9RG, Midlothian, Scotland.



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

Sixth OIE Conference held in Harare

As an editorial, the CwVA News is pleased to reproduce the following article by the editor of the Zimbabwe Veterinary Association News.

International Office for Epizootics

The 22nd to 25th January 1985 saw the sixth conference of the O.I.E. Regional Commission for Africa held in Harare. As well as forty-six participants from 21 O.I.E. member countries, representatives from the O.A.U., F.A.O., E.E.C., I.C.L.A. and I.L.R.A.D. also attended. The O.I.E. was first formed in 1924 to serve as a forum for the centralised reporting on epizootics as well as formulate international policies on disease control. Of the 107 O.I.E. members, 40 were from Africa, giving one some indication of the disease control problems Africa is facing.

The main topics under discussion included the constant thorn of tsetse fly/trypanosomiasis and even more importantly, Rinderpest, which is at present on the rampage in some 28 African countries. As recently as 1975, an internationally-funded campaign known as Joint Project 15 (JP15) almost succeeded in wiping out rinderpest in Africa, but the disease appears to be steadily spreading again. Even with the constant surveillance work done in Zimbabwe against FMD, the presence of rinderpest here would sound the deathknell to our desperately important beef export plan. However, in spite of lengthy discussions, general agreement amongst delegates about the need to tackle rinderpest immediately, and pleas from the E.E.C. for action, the Pan-African campaign to eradicate rinderpest (set to begin in January)

was somehow postponed for at least another year.

The threat of trypanosomiasis was also discussed at length. The report presented by Mr. B. Hursey from Zimbabwe outlined that 23 species of tsetse fly occupy over 10 million square km in 37 African states, resulting in a major constraint on livestock production and placing some 35 million people at risk to sleeping sickness. Despite vast expenditure on research and control projects, very little has really been achieved in recent years. There still are very few trypanosomocidal drugs available, some resistance has evolved even to these drugs and the use of bush clearing and destruction of wild animals hosts appears to be an unsuitable control measure.

In tsetse fly control, the Zimbabwe government control measures have an admirable record. A narrow belt of trypanosomiasis near the Kariba basin is held constantly in check with ground and aerial spraying (Endosulphan & DDT) and important research into chemo-sterilization of tsetse flies is gaining further investigation. As well, odour-baited traps developed in Zimbabwe and mobile electrocuting devices show great promise.

Mr. Hursey also commented on the possibility of introducing trypanotolerant cattle breeds, as exist in some parts of West Africa. The delegate from I.L.R.A.D. pointed that a vaccine against trypanosomiasis appears imminent.

The number of epizootic diseases confronting African countries is indeed staggering and at the conference, were grouped roughly into List A and List B

diseases. List A refers to particularly contagious diseases and included FMD, Rinderpest, Contagious Bovine Pleuropneumonia (BPP), Peste des Petits Ruminants (PPR, a virus similar to Rinderpest affecting small ruminants), Lumpy Skin Disease, Bluetongue, Rift Valley Fever, Sheep Pox, African Horse Sickness, African Swine Fever and Newcastle Disease.

List B diseases, less contagious, included Anthrax, Heartwater, Leptospirosis, Rabies, Anaplasmosis, Babesiosis, Bovine Brucellosis, Bovine Tuberculosis, Dematophilosis, Haemorrhagic septicemia, Theileriosis, Trypanosomiasis, epizootic lymphangitis and fowl typhoid. Clearly it is difficult enough for many African countries to positively identify many of these diseases, let alone prevent them.

It was interesting to note that Ethiopia reported the presence of almost every disease on both lists.

The importance of vaccine banks in individual African states was also debated at length. A major problem arises after the identification of an epizootic in African countries in that usually no vaccine is available to combat it. Some 18 countries in Africa do produce some vaccines against epizootics but the major obstacle remains that most countries do not have or will not allocate foreign exchange to purchase vaccines or equipment for vaccine production.

The Honorable Minister of Agriculture, Senator Dennis Norman, spoke at the opening of the O.I.E. Conference on the importance of building

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Propose major role of auxiliary staff

A recent article (Treitz 1985) reports belatedly on an October 1984 Seminar in Burundi on the role of auxiliary veterinary staff in livestock development in Africa. Although the Seminar, held under the auspices of the Netherlands' Technical Centre for Agricultural and Rural Cooperation (C.T.A.), Wageningen, concentrated on sub-Saharan Africa, the conclusions and recommendations have considerable relevance to a wider range of developing countries.

Although the livestock subsector contributes 4 to 24 percent of Gross Domestic Product (G.D.P.) in African countries, government budgetary allocation ranges from only 0.2 to 1.5 percent of the total government budget for each country. Not only do such allocations fail to reflect the importance and potential of the livestock subsector to these countries' economies, but the limited funds available are mostly (75-90 percent) spent on person-

nel costs, leaving very little (10-25 percent) for equipment and other inputs.

Participants at the Seminar estimated that although there are some 150m cattle south of the Sahara, cattle herd growth is declining (eg. 3.7 percent p.a. from 1960-1969; 2.1 percent p.a. from 1970-1979). Animal health problems remain a significant constraint, particularly viral and parasitic diseases, despite vaccination campaigns and subsidised or free veterinary services offered in most African countries. The persistence of these problems is due in part to severe government budget limitations that ensure that vaccines, mineral supplements, acaricides and other animal health inputs are available in adequate amounts. The inadequacy of supply of these inputs is compounded in many African countries by legislation that restricts the importation, distribution and, sometimes, even sale of animal medicines to government agencies.

However, recent observations on pilot projects where veterinary inputs have been offered for sale to stock owners suggest that an increasing number of producers can and will pay for such inputs where they regard them as effective. Based on such observations, participants at the Burundi Seminar proposed that veterinary services in Africa require major restructuring and that auxiliary veterinary staff should play a major role in these restructured services.

The proposed restructuring will encourage private sector initiatives and facilitate this by phasing out State and parastatal monopolies on the importation, distribution and sale of animal medicines. Links between public services and livestock owners should be improved by using auxiliary veterinary staff (A.V.S.) at basic animal health centres.

The A.V.S. would be responsible for
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Conference held in Harare

from page 6

up and maintaining efficient government veterinary departments. He stressed that often by the time an epizootic has swept through an African country, its own veterinary department had long been ignored and its ranks depleted by poor wages. The E.E.C. delegate as well emphasized that the time was not in Africa to revitalize its Veterinary Services.

The problem still remains that most African countries pay lip service alone, not only to their veterinary departments, but at ground level to the farmers themselves. Perhaps to maintain cheap food for the urban public, farmers are still paid a pittance for their produce in most of Africa and not really encouraged to store, expand or diversify. Veterinarians naturally only prosper as do farmers in developing countries and thus are poorly equipped and financed. In Ethiopia, long before the present drought, agricultural production has been decreasing an average of 5 percent per year since the communist take-over in 1974. In like-minded countries, vast amounts are often allocated in keeping a huge defence and administrative sector well fed, whilst the importance of maintaining a healthy livestock population is downplayed.

Source: ZVA News 1985.

Twining receives favourable response

In the UK/Europe section of this issue is an item describing the activities of the BVA Overseas Subcommittee. A very favourable response was given to Trevor Blackburn's suggestion of twinning between UK regional veterinary groups and national veterinary associations of developing countries. Could this not also be a most worthwhile exercise for Australia, Canada and New Zealand? Would it not be an expression of real friendship and cooperation?

Surely provincial, state, country and other regional veterinary associations and groups might twin themselves with similar groups in the much less affluent areas of the Commonwealth. Would not student bodies of veterinary schools find a valued and interesting ex-

perience in helping, on a continuing basis, students in the poorer lands? Possibly some provincial or state veterinary association might consider adopting the Pong-Tamale Veterinary College as a taster-dependant. (see CwVA News January/87 pg. 26) Maybe these types of effort are already being made. If so, can we not make more of them?

Interested Australians should contact Dr. W.J. Pryor, Galwiji, Pryor's Road, Scotsburn, Victoria 3357. Canadians write to Dr. R.G. Stevenson, P.O. Box 1410, Sackville, New Brunswick, E0A 3C0 or Dr. J. Archibald, 35 Lynwood Pl., Guelph, Ontario, N1G 2V9, Canada. New Zealanders contact Dr. E. Shortridge, Brookvale Road, Havelock North, New Zealand.

Service

The quality of service is not strained,
 When offered as a cure to sickening
 beasts

Who fill the place beneath: it is twice
 blest,

It blesses him that gives, and him that
 takes,

T'is mightier in the mightiest, it
 becomes

The established principal practitioner
 Better than the newly qualified.

His clinic shows the force of temporal
 power.

Not th'attributes of profit and of gain
 Wherein you find the reward of trade
 and speculation.

Service is beyond the market and
 bazaar.

It is enthroned in the hearts of men.
 It is an attribute of God himself
 And earthly power doth then show
 likest God's

When service seasons business.

Source: Dr. Peter Trim of New
 Zealand.

Report on The Gambia meetings

The Gambia, the birthplace of the CwVA, was once again the site of vigorous CwVA activities as the CwVA marked its 19th year as an official Commonwealth association. Of particular importance were the CwVA pan-African council meetings. For the first time it was possible for CwVA council members from both the West Africa Region and the East/Central/Southern Africa Region to come together, to share concerns and to benefit from hearing firsthand each other's experiences. Thus was afforded to them, the opportunity to look ahead over a much broader horizon, to consider and share plans for the future. Plans, which by joint efforts, could materialize and be of benefit to all involved.

All CwVA persons were among the large number of guests who attended the official opening of the International Trypanotolerance Centre. The CwVA council members were among those in regular attendance at the ITC seminar on trypanotolerance. This seminar was held after the two-day CwVA seminar, thus allowing many to attend much of both seminars.

For the CwVA Executive, the highlight of the week was an audience with His Excellency, Sir Dawda Jawara, President of the Republic of The Gambia and Patron of the Commonwealth Veterinary Association. His Excellency, himself a veterinarian and still very much interested in the CwVA and in veterinary medicine, took time later to discuss CwVA's 'Seminar for Administrators and Educators of Animal Health Assistants' with Professor Hamilton, the seminar chairman, and some of the executive. Along with many other guests, all CwVA participants were invited to attend an evening reception at His Excellency's residence. It is interesting to remember that His Excellency was the CwVA's first president.

There is no doubt that the unqualified success of the CwVA seminar resulted from three wise choices. (A). The choice of a subject that was of the utmost and immediate concern to all participants. (B). The choice of speakers who knew whereof they spoke. The speakers, all thoroughly acquainted with the African scene and well versed in training procedures, spoke with authority that came from extensive involvement with Animal Health Assistants, training them, working with them and supervising them. (C). The choice of the informal, yet businesslike, manner with which the seminar was conducted. It successfully encouraged comments and participation by all.

A very heavy schedule of executive



CwVA Seminar, The Gambia, March 1987 - Chairman, Professor Gavin Hamilton (Canada) and speaker, Professor Tom Aire (Nigeria).



Gracious hosts of The Gambia meetings were Dr. Bakary Touray (standing) and His Excellency, Sir Dawda Jawara, President of The Republic of Gambia.

meetings was followed. This included daily breakfast meetings, afternoon meetings during most days and frequent evening meetings. Council meetings were scheduled to allow for maximum attendance at the seminars, however this still allowed for daily meetings usually in the mornings but also during some afternoons and evenings. The Jan/88 CwVA News will carry reports on the official minutes of these meetings and also on the Seminar report and recommendations.

The final evening saw all CwVA participants and several guests gather

together for a farewell dinner. There was no after dinner speaker, more appropriately many were called upon for impromptu remarks. These remarks, none of them prepared, collectively sounded a sincere note of optimism which echoed a feeling of pride in our Commonwealth and the CwVA.

A highlight of the evening was the announcement that Dr. Choquette had been appointed 'CwVA Honorary President for Life'. This is a non-executive position bestowed upon Laurent Choquette in appreciation of his enormous

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Important message - Forward Planning

Dear Colleagues

This association is in a unique position, representing as it does over 50,000 veterinarians with a common language. We are in a position to exert influence if we act in a cohesive manner. We must plan ahead, establish our credibility as an Association and we shall reach the stage where our opinions are sought by others.

Earlier this year I wrote to all Council members to seek their opinions on a FORWARD PLAN and seeking suggestions pointing out to them that whether we call it a strategic plan, corporate plan, 5-10 year plan is irrelevant as long as we can agree so that when a CwVA opinion is expressed it can be expressed with confidence.

At the CwVA Animal Health Assistants Seminar, held in The Gam-

bia, 21-27 March 1987, the opportunity was taken to discuss forward planning with representatives from all the Commonwealth African countries. A discussion document was circulated and after a lively discussion on matters involving the veterinary profession, four main areas of concern were provisionally identified, namely: - A. Matters affecting the veterinary profession; B. Livestock production; C. Livestock industry; C. Socio economic matters.

A draft plan was drawn up to cover some of these areas, to be circulated to all Council members for discussion within national associations.

On certain items, for which it was felt that we should immediately start gathering information, timetables with targets were established and comments from colleagues who were not present

would be appreciated.

A draft plan entitled "Forward Planning" is reproduced in this CwVA issue. Part A was considered sufficiently important by your Executive Committee to implement it immediately. Further comments and suggestions are required on the entire plan. Please give this matter careful consideration, use your imagination, and let your Council Representative have your opinions.

No, we are not trying to compete with the International Agencies, we do not have the resources, but this is a unique organization with tremendous potential, let us utilise it for the benefit of all countries.

Yours sincerely,
J. TREVOR BLACKBURN

Vice President, CwVA
(see page 36 and 37)

New council members

New members recently elected to CwVA Regional Councils are: - Dr. M. Hoque Buihyan is now council member for Bangladesh of the CwVA Asia Region. He succeeds Dr. M.U. Ahmed Choudhury. Dr. Buihyan's address is 48 Kazi Alauddin Road/Dhaka-1000/Bangladesh.

Dr. Lansana H. Kallon is now council member for Sierra Leone of the CwVA West Africa Region. He succeeds Dr. John A. Kamara. Dr. Kallon's address is Vet Div/Min of Agr & Nat Resources/Freetown/Sierra Leone.

Dr. R.S. Surujbally is now council member for Guyana of the CwVA Caribbean/Canada Region. He succeeds Dr. T.B. Richmond. Dr. Surujbally's address is c/o Guyana Vet Assoc/Box 10851/Georgetown/Guyana.

Dr. I.T. Ndzingo is now council member for Botswana of the CwVA East/Central/Southern Africa Region. He succeeds Dr. R.S. Windsor. Dr. Ndzingo's address is P - Bag 0032/Gabarone/Botswana.

Dr. G.B. Swanston is now council member for Montserrat of the CwVA Caribbean/Canada Region. Dr. Swanston's address is c/o Min of Agric, Trade, Lands & Housing/Plymouth/PO Box 275/Montserrat/West Indies.

Dr. G.K. Polke is now council member for Solomon Islands of the CwVA Australasia Region. Dr. Polke's address is Chief Vet Officer/Min of Agric & Lands/PO Box 61/Honiara/Solomon Islands.

Dr. M.Z. Hussain is now council member for Tonga of the CwVA Australasia Region. Dr. Hussain's address is c/o Regional Livestock Development Project/PO Box 14/Nuku'olofa/Tonga.



A popular choice CWVA vice-president elect, Bakary Touray (The Gambia).

The Gambia meetings

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contribution to the CwVA since its inception. It was also announced that a newly elected CwVA Executive Committee would take office on January 1, 1988, and remain in office until December 31, 1991.

Dr. Laurent Choquette (Canada) will retire as President. Mr. Trevor Blackburn (UK) will become President and Dr. Bakary Touray (The Gambia) will become Vice-President. Dr. Jim Archibald (Canada) remains as Secretary/Treasurer. All were popular and deserving choices. It was interesting to note how often, during the evening, apologies were made for the inability to adequately express appreciation for the work of Secretary-Treasurer Jim Archibald.

Did you know that:

Leucas aspera is a common weed found in many parts of India and Sri Lanka. The juice of its leaves is a time tested home remedy for scabies and skin eruptions. Indications are that extracts of this plant could be of use in the economical treatment of ringworm in cattle and perhaps other dermatomycoses of farm animals.

Tumeric (*Curcuma longa* L.) is commonly grown for household use. Its aromatic rhizome is used as a stimulant and condiment, and in treatment of wounds, sprains and dermatoses. Its antimycotic activity may be due to the presence of curcumin.

A reasonable conclusion is that the extracts of both *Leucas aspera* and tumeric are useful in the treatment of ringworm in cattle and perhaps other dermatomycoses of farm animals. Source: The Sri Lanka Vet. Jour. Vol. 31, pg. 38.

A glance back to 1984

The 1984 CwVA executive meeting was held at the headquarters of the British Veterinary Association (BVA) in London, England. The CwVA executive had the pleasure of meeting the BVA Overseas Committee at an evening and dinner hosted by the BVA. That evening served to acquaint the CwVA executive with the successful projects that had been inaugurated by the BVA for assisting the developing countries. Among these, was the BVA project of 'books, journals and small items for colleagues and institutions in developing countries'.

During that 1984 executive meeting the following considerations were expressed:

- The CwVA should assist countries, which do not have a statutory regulatory body (National Veterinary Council), by providing a model act.

- A way to improve and expand the activities of the CwVA was through better communication within and among member associations. It was proposed that a CwVA newsletter be published.

- That the Europe/Mediterranean region (UK, Cyprus and Malta) did not present enough scope for the kind and amount of activity that the BVA was capable of generating. It was suggested that the geographical distribution of regions should be adjusted to permit the BVA to have an expanded role in the affairs of the CwVA.

- That the establishment of national associations was secondary to achieving legal recognition, in all member countries, of the status of veterinarians.

- That the term 'professional development' should include such activities as convening conferences, workshops and seminars, and also promoting the distribution of books, journals and audio-visual material.

- That regional conferences be held in association with annual general meetings of national associations.

- That the emphasis of distributed A-V material be balanced between agricultural aspects (i.e. calf-rearing, milking techniques) and continuing education (i.e. current surgical techniques, disease information).

Projects for action

The following were adopted as 'Projects for Action':

- a. Licensing Bodies - The Secretariat was instructed to send a Model Act to all member associations with a covering letter drawing attention to the section in the Constitution that encourages associations to exercise control of the profession, and request that they bring this to the attention of the government.

- b. Sub-Professional Training - The secretariat was instructed to compile information on the places where Animal Health Assistant (Technician) training was being carried out, and to obtain curricula from as many of these sources as possible. This information to be distributed to regional representatives to serve as a basis for a study that could involve suggestions to government concerning curricula, minimum standards and duties and responsibilities of such sub-professional personnel.

- c. Newsletter - The secretariat was instructed to look into the matter of publishing a Newsletter and to bring this to fruition within a two year period.

The following were elected unanimously to be the officers of the association: Patron - Sir Dawda Jawara, President of the Republic of The Gambia; President - Dr. L.P.E. Choquette; Vice-President - Mr. J.T. Blackburn; Secretary/Treasurer - Professor J. Archibald.

The meeting was then adjourned.

Auxiliary staff

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selling animal medicines and related products except those "drugs considered dangerous". They would also provide basic "first aid" and participate in national control programmes, including vaccination campaigns. Payment of the A.V.S. would vary, but would be by local producers' organisations, "in cash or in kind", on the basis of "services rendered or products sold". Instead of the usual 2 or 3 year training course used for paraveterinary staff or animal health assistants, training of the proposed A.V.S. would be shorter and more practical. (eg: an initial 2-4 week course followed by in-service training). Candidates for A.V.S. positions are envisaged as having little or no formal education but significant practical knowledge and experience, and their training would be conducted in the appropriate local language, with emphasis on only locally-important problems. Continuous supervision of A.V.S. would be provided by state veterinary officers and, one presumes, effectively by their employer-client producer organisations.

It would be interesting to learn, in due course, of the results of this approach to providing animal health field services. Source: Papua New Guinea Veterinary Newsletter Dec.85.

Are you clear about all of this?

Quote - 'Development is a ferment of agitation, there is no doubt that development usually means quite different views of the future and therefore the effect on the political environment. Countries that don't want that type of agitation should be very careful about how quickly they push development.'

Quote - 'Oppression and exploitation is the central issue in development. The mobilization of resources in the context of the role of NGOs does involve class struggle, social forces working for the transformation of society against those trying to maintain the status quo. We have to open up ourselves to being used by the forces of capital or the forces of labour. Will NGOs come out of their closets? Can they afford to? If they do,

there could be a role for them. If not, then my feeling is that they are not going to be effective in mobilizing forces for social transformation.'

Quote - 'My own view is that development is essentially about people and therefore the mobilization of resources has as its goal personal freedom and communal justice. Many of us prefer to use 'liberation' rather than 'development', an active process of overcoming obstacles to progress, an equal sharing of power and resources within and among nations.'

Source: CUSO Forum Jan/87. Marcel Masse, IMF director, Kemal Mustafa, CUSO Field Officer. Dr. Gary Warner, CUSO Board Member, in that order.

Journal, book, audio-visual program report

by Bert Stevenson

This program was initiated a number of years ago but was discontinued because of rising costs of subscriptions and a decreasing operating budget.

The program was considered useful so another method of operating it was suggested. In each country where a journal on veterinary or animal production methods is published a request is made to members to donate their copy to the CwVA. In some instances postage is paid by individuals whereas in others it is paid by the CwVA. At present we have information that the program is operating in Canada, Great Britain, New Zealand and Australia and possibly in other countries.

One of our biggest problems is communicating with Commonwealth countries. Perhaps one of the main reasons for this is that the CwVA relies solely on volunteer help to carry out its daily functions and the pressure of daily work means that CwVA work is often delayed. That plus the great distances involved and the variable efficiency of postal services can result in long periods of time to accomplish even relatively simple tasks.

I have sent a questionnaire to each council member to obtain as much information as possible about library services and educational institutions in each country. The response to date has been discouraging. In order to avoid duplication and to spread the program amongst as many countries as possible, it is essential that I have this information. I would ask the support of each regional representative to urge their council members to send me this information at their earliest convenience. For those that have sent a reply I thank them and promise that I will give their requests, if any, my immediate attention.

As mentioned the program is working with varying degrees of success in some countries. Dr. Shortridge has stated that the journal donation program has been operating on a modest scale since the program was adopted as CwVA policy at the Banjul meeting of the executive committee in 1977. They have been able to match a donor to all requests but do have difficulty ensuring that the donations are continuing on a regular basis. Donors pay for the postage themselves and post the journals direct to a recipient. New Zealand and Australia are trying to arrange donor/recipient matches between their countries and the Cw Pacific Islands. A self-adhesive label identifying the donor

is placed on each journal so that recipients can reply if they wish.

In Australia Dr. Pat Boland and Dr. W.J. Pryor have discussed the possibility of further donations of Australian Veterinary Journals. The program would be similar in that donors would be matched with recipients. An important point in their program and one that probably applies to other donor countries is that the program is intended for recipients who would not normally be in a position to afford to subscribe to the journal if it were not provided free of charge. It is expected that smaller agricultural or veterinary libraries in particular would be acceptable recipients. A request has been sent to councillors in the Australia region to determine if there is a demand and if so the names and addresses of any interested persons or institutions.

I have no information on file that a similar scheme is in place in the Asia region but thought that I had read that there was an interchange of journals between India and Sri Lanka. I would appreciate any information that would update my files.

All of you will have been informed through Mr. J.T. Blackburn's letter of 28 January 1987 of a pilot project being organized by the BVA on behalf of the CwVA which would link various BVA Divisions with member countries of the CwVA. As I understand it the project will begin with Commonwealth countries in Africa and if it is a success then the project will be extended throughout the Commonwealth.

The program in Canada has been guided by the president, Dr. Laurent Choquette and by the secretary-treasurer, Dr. Jim Archibald since its inception. Last year I was asked to coordinate the program for the CwVA. In addition to journals and books, audio-visual aids were to be included. Commonwealth countries in all regions have benefited, some more than others. As for other donors we urgently need information to determine if there is a continuing demand for this program.

The costs of sending journals, books or A-V aids are paid for either by the CwVA, national or regional veterinary associations or by individuals. Where the costs are paid for by anyone other than the CwVA this expense should be considered as a donation to the CwVA so that the true cost of operating this program can be determined.

Interested parties should contact:

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

-Canada - Dr. R.G. Stevenson, P.O. Box 1410, Sackville, New Brunswick, E0A 3C0.

-New Zealand - Dr. E. Shortridge, Brookville Road, Havelock North.

This program marches hand-in-hand with and is not a competitor to the BVA 'Veterinary Journal, Book and Small Items of Equipment' Program. In the UK and Europe interested parties should contact Mr. Mike Teale, BVA, 7 Mansfield Street, London, W1M 0AT.



Attendants at the CWVA Seminar, The Gambia, March 1987.

41 CwVA council members

ASIA REGION

Bangladesh - Dr. M. Hoque BHUYAN
 India - Dr. S. Abdul RAHMAN
 Sri Lanka - Dr. D.D. WANASINGHE

AUSTRALASIA REGION

Australia - Dr. W.J. PRYOR
 Fiji Islands - Dr. N. TABUNAKAWAI
 Malaysia - Dr. Ahmed Mustaffa bin BABJEE
 New Zealand - Dr. E. SHORTRIDGE
 Papua New Guinea - Dr. M. NUNN
 Singapore - Dr. Giam Choo HOO
 Solomon Islands - Dr. G.K. POLKE
 Tonga - Dr. M.Z. HUSSAIN

CARIBBEAN/CANADA REGION

Antigua - Dr. J.L. ROBINSON
 Bahamas - Dr. M. ISAACS
 Barbados - Dr. T. KING
 Belize - Dr. B.M. SILVA
 Canada - Dr. R.G. STEVENSON
 Cayman Islands - Dr. B.H. BELL
 Dominica - Dr. W. CHRISTIAN
 Grenada - Dr. B. NYACK
 Guyana - Dr. R.S. SURUJBALLY
 Jamaica - Dr. K. AMIEL

Montserrat - Dr. G.B. SWANSTON
 St. Kitts/Nevis - Dr. B. NISBETT
 St. Lucia - Dr. K. SCOTLAND
 St. Vincent - Dr. M.C. RAMINGA
 Trinidad & Tobago - Dr. H.E. WILLIAMS

EAST/CENTRAL/SOUTHERN

AFRICA REGION

Botswana - Dr. I.T. NDZINGE
 Kenya - Dr. G.G. KAMAU
 Lesotho - Dr. M. MOTEANE
 Malawi - Dr. S.J. NDAOMBA
 Mauritius - Dr. V.B. GROODOYAL
 Swaziland - Dr. J.G. DUBE
 Tanzania - Dr. P. MSOLLA
 Uganda - Dr. I.D. ODUR
 Zambia - Dr. C. OPARAJOCHA
 Zimbabwe - Dr. D. BATCHELOR

WEST AFRICA REGION

Ghana - Dr. W. AMANFU
 Nigeria - Dr. T.A. AIRE
 Sierra Leone - Dr. L.H. KALLON
 The Gambia - Dr. B.N. TOURAY

UK/EUROPE REGION

United Kingdom - Mr. J.T. BLACKBURN

Something to think about

Everyone involved in agricultural must become more conscious of increasing public awareness and involvement in resource management and protection issues. A greater involvement by the whole community in conserving natural resources of land and water from pollution and degradation is inevitable.

Scientists must take a more integrated approach to land management research. Agriculture is no longer just a

technical science but has social, economic and environmental aspects. Research should be geared to finding solutions which landholders have the skills to apply. Greater accountability to the whole community is vital not only to improve understanding of agriculture, land-use management and the environment, but also to convince the community of the need to finance appropriate research.

In views, put forward by 14

agricultural scientists, a common theme stressed the need to achieve higher productivity on a given area of land, rather than through expansive development - the "get big or get out" mentality. The former approach offers the best potential for maintaining production while reducing cost.

Source: CASAS News/Number 15 - Remarks, noted by Xavier Duff, at the Australia Institute of Agricultural Science Jubilee Conference.

Those members of the Association who attended the recent Seminar in Gambia will have had the opportunity to meet Peter Robinson (a member of A.T.B. staff) and to benefit from his input into the Seminar. No doubt they will have, now, an increased knowledge and understanding of the A.T.B. and particularly of its work with the veterinary profession in Britain.

The Board was set up in 1966, by Government, to ensure the provision of appropriate training for people engaged in farming in the United Kingdom. Over the intervening 20 years its work has expanded, so that in the year 1986/87 about 26,000 training courses were arranged for over 130,000 people throughout the country.

The main delivery system for train-

The Agricultural Training Board

ing is through local training groups. These groups are made up of farmers who come together to discuss, plan, and help to organize training for themselves and employees. Where possible, local venues and local instructors are used, thereby bringing greater relevance to local problems and developments.

Operation of the groups is monitored by the Board's Training Advisers, who also provide advice on training development and finance.

The quality of instruction is of first importance in the delivery of training the high quality. Instructors are selected on the basis of known expertise

in their subject, to which the board adds training in instructional skills.

In Livestock production training, practising veterinarians provide much of the instruction. There is close liaison between A.T.B. and the British Veterinary Association, both at local and national level, which ensures that professional and legal requirements are recognized. It has already been demonstrated that the Board's training systems are applicable in many other countries, and ATB is undertaking a growing number of projects overseas. Emphasis upon local organization, orientation, and relevance allows these systems to be implemented in a wide range of differing social and cultural environments.

Source: D.C. Newman - Director of A.T.B.

Canine and Feline Behavioural Therapy

This text was written to present the veterinary practitioner with a systematic approach to handling and treating problem behaviour in cats and dogs. The purpose, scope and organization of this book were clearly outlined in the first chapter. The text was organized into three sections.

Section I began with an introduction to behavioural therapy and in stepwise fashion outlined the role of the pet, owner and the owner-pet interactions. Tips for effectively conducting the medical interview and case history assessment were given.

Section II was organized into 18 chapters and presented as a quick reference source providing therapeutic information for treating the common behavioural problems in dogs and cats, such as aggression, roaming, spraying, fear reactions, etc. For each problem behaviour a brief history of the problem and the therapeutic approach was given. Specific case studies were presented throughout the text, further illustrating the salient points of a recommended therapeutic approach.

by Benjamin L. Hart
and Lynette A. Hart
Published by Lea & Febiger
Philadelphia, 1985
275 pages

Each study presented information on the history, diagnosis, general evaluation and specific instructions used in a specific case.

Section III, comprised of four chapters, provided background and reference material supporting the choice for specific therapeutic approaches suggested in Section II. Options and prognosis for correction of specific problems with various treatments were given as an aid to the practitioner. Of particular interest is the chapter on the importance of pet selection where the behavioural characteristics of 56 breeds of dogs and eight breeds of cats are summarized. This information could be extremely helpful for assisting prospective pet owners in selecting a pet suited to specific needs and wants, thereby minimizing the potential for the development of behavioural problems later on.

The remaining three chapters dealt with an overview on the methods of modifying behaviour by conditioning procedures, hormones or psychoactive drugs.

This well organized, easy to read book is directed at the small animal veterinarian who wishes to acquire some expertise in treating behavioural problems and I feel that the authors have met this objective. The case studies were very helpful in further illustrating a particular therapeutic approach. The several illustrations, figures and photographs were of uniform high quality and useful. Much of this information has been published individually and this book has drawn the facts together into one well organized reference. A reference list is given at the end of the text for further indepth study as needed.

Overall, this text is a well written and illustrated reference book on common behaviour problems and therapy for dogs and cats.

Denna Benn,
B.S.A., D.V.M., M.Sc.,
Dip. Vet. Med.

Veterinary Dentistry

by Erich Eisenmenger
and Karl Zetner
Published by Lea & Febiger
Philadelphia, 1985

Over the past few years some four books on Veterinary Dentistry have been published, some for the small animal alone and others covering both the large and small animal species. Prior to this influx of new texts veterinary dentistry was mentioned within the text of general surgery books.

Originally published in German from the University of Vienna, Austria, the book by Eisenmenger and Zetner is, in this reviewer's opinion, by far the best of the recent publications. The text covers dentistry in carnivores, herbivores, rodents, pigs and primates. It is divided into ten chapters, each chapter being both clear and succinct. The first chapter is extremely short and deals with the general examination of a patient; it does not go into a lot of detail because this is an area normally dealt with in a clinical text.

The second chapter entitled "Tooth and Jaw" deals with all aspects of embryological growth, anatomy, normal dentition, the function of the masticatory system and the methods of estimating an animal's age by examination of the teeth.

The clinician will gain considerably

from reading the third text which deals with the technology of dentistry covering: the selection of instruments, machines and dental materials used for disinfection, pulp protection, filling and other items used in the routine care of teeth. The chapter is followed by some 17 pages which cover most comprehensively abnormal dentition and changes in teeth during both normal and abnormal growth. No where else is the reviewer aware of such a comprehensive amalgamation of this type of information.

Although orthodontics is not a particularly commonly employed science in veterinary dentistry it does, have a place in specialized practice. The dental veterinarian will find the chapter on orthodontics a useful refresher in dealing with both normal and abnormal occlusion. While correction of abnormal occlusion is considered to be both unethical, and probably illegal, if it is only designed to improve an animal's appearance it is said in law to be

"calculating to deceive"; the techniques do have a place in correcting such malocclusions that cause pain and distress to the patient.

A chapter on tooth fracture and alveolar fracture deals most successfully with these two subjects. If the reader was to purchase this book in order to just acquire the knowledge written in this particular chapter, the expenditure would be well worth while. Unfortunately, fractures of the mandible are dealt with in a rather cursory manner. The recent innovative techniques of treatment of fractures of the mandible and maxilla by screw and plate fixation are mentioned only superficially. Conceivably the authors believe that the subject is more properly placed in a book on Veterinary Orthopaedics. As a counterbalance to this criticism the clarity of description and diagrams relating to tooth and alveolar fracture, in all species, is most admirable.

A chapter on crown and tooth restoration deals with this problem condition in the dog. A quotation from the beginning of the chapter is possibly worth repeating - "because of satisfactory

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The Henston Veterinary Vade Mecum

The Henston Veterinary Vade Mecum (large animals) is a two volume soft cover set of texts concentrating on large animal diseases and therapeutics.

Volume one concentrates on diseases and conditions in large animal medicine. It is divided into four sections containing alphabetical listings of the major diseases of cattle, sheep and goats, pigs and horses. Each section is cross-indexed so that most diseases can be easily located in the text.

Each disease or condition is briefly described under a set of headings consisting of aetiology; disease profile, signs, post-mortem findings, diagnosis, principal differential diagnoses, treatment and control. The new 1986-87 edition also includes a poisons table which lists the most important and common

poisons, the principal species affected, the usual source, signs, specific antidotes and other management or therapy available.

Volume two focuses on describing the majority of therapeutic products available to the veterinary surgeon in the United Kingdom. It consists of an alphabetical listing of products followed by 38 tables describing medications in various therapeutic classes. This second volume also contains helpful tables on haematological values, vital signs, drug interactions and laboratory diagnostic services in the U.K.

In summary, the Henston Veterinary Vade Mecum can serve as a useful initial source of information to the veterinary practitioner. The handbook style of presentation precludes a complete treatise on every disease or condi-

tion in large animal medicine. However, the very basic facts of a wide variety of topics are covered in each species in an easily accessed form. The text has been written for the veterinarian in the United Kingdom so that many of the geographical references, trade names, lay terms and notifiable diseases may not apply to other countries in the Commonwealth.

The textbooks are written by A.H. Andrews and C.J. Giles, edited by J.M. Evans and is published by Update-Siebert Publications Limited. Both volumes are distributed free, on request to veterinary surgeons in practice in the U.K. by the publishers.

By John Campbell D.V.M.
Wingham Veterinary Clinic
Wingham, Canada

Veterinary Dentistry

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esthetic appearance, this kind of restoration is recommended to owners of exhibition animals'. Judicious care should be exercised in this particular speciality which should probably only be undertaken by specialists in veterinary dentistry or with the assistance of a similar individual from the field of human dentistry. Once again one is anxious about the dangers of alteration of the appearance of an animal's dental arcade in order to gain points in the show ring.

A short chapter on dental caries deals adequately with the subject but it is rather surprising that the authors chose to write so little on the subject. The material within this chapter deals, almost exclusively, with the treatment of the condition.

The former remark cannot be made of the following chapter on periodontal disease; the subject is covered in con-

siderable detail and clarity and introduces many techniques which have previously not appeared in English language veterinary dental literature.

The final chapter deals with physiologic and irregular wear and gives some useful advice on treatment of the conditions in all species. The book is terminated by some 65 references in a two page bibliography.

Probably the strongest point of this book, which contains 160 pages, is the clarity of both the line diagrams and the photographs. Well over half the photographs are in colour and the reproduction is unusually clear and informative. So often colour photographs lose much in reproduction. When radiographs are used, they too are of excellent quality. Nowhere else has one seen such an excellent list of instruments and machines that should be employed in veterinary dentistry; un-

fortunately the catalogue numbers and companies mentioned are all European and consequently the reader would need to attempt a cross match with suppliers in North America. This should not be too difficult. With little trouble the relevant pages may be photocopied and sent to a dental supply house requesting quotations for similar items which are available on this side of the Atlantic.

In summary although many of the techniques will be beyond the abilities and facility of the casual veterinary dental surgeon, it does give a very clear description of the techniques which may now be employed and hence point the practitioner in the direction of a specialist in the area. The text has a distinct place on the shelf of every small animal practitioner.

G. Sumner-Smith,
B.V.Sc., M.Sc., F.R.C.V.S.

Heartworm Disease in Dogs and Cats

This text represents the accumulation and consolidation of the current knowledge of heartworm disease and the accepted management of this disease in dogs and cats. There are 13 chapters which cover pathogenesis of heartworm disease including pulmonary arterial response and cardiopulmonary disease development; diagnostic clinical evaluation including immunodiagnostic tests, echocardiography, radiography and clinical pathology; treatment of uncomplicated heartworm disease as well as second-

dary conditions such as congestive heart failure, disseminated intravascular coagulopathy and vena caval syndrome; prevention, occult infection and heartworm disease in cats.

Following the text, the Appendix contains useful summary tables of "Drugs Used for the Treatment of Heartworm

Infected Dogs", which outlines filarial drugs, cardiovascular and renal supportive drugs and diets, and drugs for respiratory disease. The tables serve as useful guides giving chapter references, drug dosages, indications, contraindications, and side effects of the common drugs used. A comprehensive index allows rapid location of the relevant material on specific problems.

Good use has been made of diagnostic algorithms and high quality black and

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Clarence A. Rawlings
W.B. Saunders Co.
West Washington Square
Philadelphia, PA. 19105, 1986
329 pages Illustrated

Anatomy and Physiology of Farm Animals

The author states in the preface that his chief objective in preparing the original edition of this book was accuracy combined with simplicity and clarity. Though the latest edition contains a few changes, this description remains appropriate.

Over the years, since the first edition was published, numerous improvements have been made. More information is presented on the molecular aspects of reproduction. Many diagrams have been added; others have been improved through the use of colour. Two colour plates on blood cell types are new. The Table of Organs in the Appendix, which presents highly summarized comparative information by species, on most major organs, is particularly useful. Unfortunately, there remain numerous references to the dog, and illustrations involving the dog; this species, of course, is not generally regarded as a farm animal.

The book begins with an introductory chapter, followed by a brief account of the structure and physiology of the range of animal cell types. Embryology

Fourth Edition, 1986
by R.D. Frandson
Professor Colorado State
University, Fort Collins

is covered very briefly, in a single short chapter. Subsequent sections, consisting of one or more chapters, provide basic coverage of the nervous, skeletal and muscular systems.

Individual chapters are devoted to the skin and associated structures, and the foot of the horse. Introductory information on blood and circulation are discussed in three chapters while five are devoted to an extensive coverage of digestion, metabolism and related topics. The urinary system is covered in a single chapter. A major section on female reproduction includes one chapter on pregnancy and parturition and two on lactation. The anatomy and physiology of male reproduction are discussed in separate chapters. A final chapter discusses basic endocrinology.

This book is generally very well organized and excels in presenting the information that it contains in a concise and understandable fashion. Specific topics are covered with sufficient

thoroughness, given the introductory nature of the book. Unfortunately, a basic and major shortcoming remains. From an agricultural perspective, there is far too much information on the horse, which is no longer a farm species, and there is virtually no coverage of poultry whose commercial importance continues to increase. The argument that poultry species are sufficiently different from mammals that they cannot be properly accommodated in such a book ignores the fact that this book, after all, is introductory in depth and could therefore easily include basic comparative information on birds. Whether as a text or reference for either animal science or veterinary students, the author does a disservice to his audience by continuing to ignore this fundamental deficiency. Still, few books of this type are as easy to use and generally useful as this one.

by D.C. Crober
Department of Animal
Science, N.S.
Agricultural College
Truro, Nova Scotia

Code of Ethics for Tourists

Expatriates, from developed countries, with the opportunity to work in the villages and rural areas of poor and undeveloped lands are presented with a unique experience. Following the 'Code of Ethics for Tourists', suggested by the 'Center for Responsible Tourism', cannot but help the expatriate get the most and best from that experience.

The Code:

1. Travel in a spirit of humility and with a genuine desire to meet and talk with local people.
2. Be aware of the feelings of the local people to prevent what might be offensive behaviour. Photography particularly must be respectful of persons.
3. Cultivate the habit of listening and

observing, rather than merely hearing and seeing.

4. Realize that other people may have concepts of time, and other thought patterns, which are very different - not inferior, only different.
5. Instead of seeing only the "beach paradise", discover the richness of another culture and way of life.
6. Get acquainted with local customs and respect them.
7. Rather than knowing all the answers, cultivate the habit of listening.
8. Remember that you are only one among many visitors - do not expect special privileges.
9. If you want a "home away from

home" why bother travelling?

10. In shopping through bargaining, the poorest merchant will give up his/her profit rather than his/her dignity.
11. Make no promises to local new friends that you cannot implement.
12. Spend time reflecting on your daily experiences in order to deepen your understanding. What enriches you may be robbing others.

Heartworm Disease

from page 14

white illustrations, photographs, and micrographs resulting in a text which is easy to read and full of useful information.

This text presents a concise coverage of the latest information on current therapy to help keep practicing veterinarians apprised of the latest developments for the management of canine and feline heartworm diseases.

I would recommend this book to all practitioners involved in small animal practice.

D. Benn
Acting Director
Animal Core Services
University of Guelph

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The Congress Convenor
Zimbabwe Veterinary Association
P.O. Box 8387
CAUSEWAY Zimbabwe

UVA has optimistic outlook

The CwVA News is pleased to have the privilege of carrying news from Uganda, a country which for so many years has suffered the turmoil of political upheaval and internal warfare. But Uganda has survived and so has the Uganda Veterinary Association. At the 1987 CwVA meetings, in The Gambia, council member, Dr. I.D. Odur spoke with an air of optimism of the renewed activity of the Uganda Veterinary Association (UVA) as political and social stability gradually return. There is no doubt that the UVA will play an active role, not only on Uganda's road to renewed stability and prosperity, but in the CwVA's intracommonwealth cooperative programmes.

The Uganda Veterinary Association

by Dr. I.D. Odur, Kampala

1. Membership around 500.
2. Most of the veterinarians are employed by the government and work in the Department of Veterinary Services & Animal Industry.
3. Several veterinarians work at Makerere University in Kampala. This is Uganda's only university and one of the oldest in Africa. In the early 1970's a Faculty of Veterinary Medicine was established at Makerere.

4. For some years past the hazards of travel have interfered with the convening of annual general meetings and conferences. Formerly these had been organized in conjunction with the conferences of the government Department of Veterinary Services & Animal Industry. In October 1986 it was possible to hold a very successful Annual General Meeting.

5. In order to facilitate wider and more active participation by veterinarians, this AGM resolved that four regional subgroups of the UVA be formed, representing the central, eastern, northern and western regions of the country. Each regional association meets as often as possible. Any decisions made are passed on to the National Executive for approval before being implemented.

Employment opportunities

by Dr. I.D. Odur, Kampala

The development of the livestock industry in Uganda has not kept pace with the training of veterinarians. Consequently more veterinary graduates are being turned out than can be absorbed by the main employer, the government. This is beginning to cause some frustrations among young graduates.

The natural avenue of employment should be private practice in the coun-

try. There are a number of rural areas able to support private practice. In any case, in Uganda, veterinary officers have always carried out private practice during nongovernment hours. In some cases private practice has been done alongside government duties. Properly set up, private practices would help to reduce those irregularities.

One major problem for setting up private practices is insufficient funds, in foreign exchange, since most requirements have to be imported. The World Bank has recently expressed a desire to assist Ugandan veterinarians to enter private practice by making loans available.

The Bank, through the FAO Investment Centre in Rome, has appointed consultants to assist with this programme. These consultants are drawing up private practice projects for which interested veterinarians can apply for loans.

The loans would assist with the establishment of clinics, dwelling homes, transport and some drugs. If this programme becomes operational it would probably be the first of its kind in the world. The veterinarians in Uganda are very enthusiastic about this possibility and are doing everything they can to ensure that it becomes a reality.

The Swaziland veterinarian

The CwVA News is pleased to bring you the following article, depicting activities of the veterinary profession in Swaziland. Its author is Dr. G.D. Yao Tofa of Mbabane, Swaziland. Dr. Tofa is secretary-treasurer of the Swaziland Veterinary Association.

The Veterinarian in Swaziland

There are about 17 veterinarians in Swaziland; the majority employed by the government, two in parastatal organization and two in private practice. The veterinarians in private practice are mainly involved with pet-animals, notably dogs and cats. The veterinarians in parastatal organization are involved in the food processing industries, mainly dairy and animal feed. The government veterinarian is involved in supervision of veterinary personnel engaged in animal health in his area, administration of all animal disease control activities, planning and execution of vaccination campaigns and quarantine services, planning and implementation of animal health projects, including routine diagnosis and

treatment of domestic animals. The bulk of farm animal work is done by the government veterinarians.

Among the farm animals, cattle predominate. The diseases commonly encountered are babesiosis, anaplasmosis, heartwater and theileriasis. There are both beef and dairy cattle, though dairy cattle are only found in small holdings. Animal tuberculosis and contagious abortion tests are carried out on most dairy cattle and the latter test also carried out on animals at the government cattle breeding stations. In most cases apart from the government cattle breeding stations it is only dairy cattle farmers who call on the veterinarian for pregnancy diagnosis. Poultry farming is still being encouraged.

The government veterinarian is kept quite busy in his area treating tick-borne diseases in both livestock and pet-animals. In dogs it is mainly cases of canine babesiosis, parvo-virus disease, canine distemper and occasional cases of ehrlichiosis. Success

rate of treatment of canine parvo-virus disease is poor mainly due to lack of proper nursing by the owners who tend to prefer euthanasia to nursing since animals are rarely hospitalized due to lack of facilities. However, pet-owners are realizing the importance of having their animals vaccinated.

Tick-borne diseases are successfully treated in farm animals and veterinarians use the opportunity to emphasize effective tick control. Success rate of surgical cases is rather poor due to post-operative care and the delay in calling for veterinary assistance. This is worse with Caesarean section and uterine prolapse where animal owners doubt the future productivity of the animal and despite the animal showing signs of recovery it is slaughtered before the end of the first week after the operation. Attempts are being made to educate the farmers about the importance of pregnancy diagnosis in both dairy and beef cattle.

There is a Central Veterinary

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Arusha site of conference

The Tanzania Veterinary Association will hold its 5th Scientific Conference at the Arusha Conference Centre, December 1-3, 1987. This conference will bring together veterinarians, animal scientists, rural sociologists, livestock economists, extension and research workers from both within and beyond the boundaries of the South African Development Coordination Conference (SADCC) countries. Representatives of veterinary associations of all lands, veterinary schools and centres, research institutions,

pharmaceutical companies and all other visitors will be most welcome.

The theme of the conference will be 'The Veterinary Profession and the Africa Food Situation'. Participation is open to all interested parties, abstracts of papers for possible presentation should be sent to The Chairman-Tanzania Veterinary Association, P.O. Box 3021, Morogoro, Tanzania.

The 1986 Tanzania conference, whose theme was 'Factors limiting livestock productivity', was very successful with over 300 participants, representing some 16 countries, attending.

Endoparasites, the enemy

During a 1985 visit to Zimbabwe Dr. Peter Holmes, of the University of Edinburgh, spoke to members of the Zimbabwe Veterinary Association (ZVA). We quote from a report in the ZVA News:

"Dr. Holmes talked on the 'Hidden Enemy', endoparasites in food-producing animals. He presented many interesting facts. For example, weight loss in heavily parasitized sheep is often nil although carcass quality is significantly diminished. Wool production is much reduced and wool quality is much poorer."

"Protein synthesis in a heavily parasitized animal changes from milk, meat and wool production to the production of blood cells and plasma proteins lost in the gut. Increased albumen catabolism is compounded by a poor

appetite, although it is interesting to note that G.I.T. absorption is not impaired, but actually improves with a worm burden in the gut."

"Studies in Kenya using haemonchosis in sheep have shown that the level of nutrition has a great impact on the losses in production. Protein level in the feed would seem to be the deciding factor. Sheep on a moderate to high protein diet suffer little from even a fairly heavy haemonchosis infestation. However, on a low protein diet, wormy animals just refuse to eat much and losses can be considerable. Dr. Holmes' talk was particularly interesting on that point; perhaps the returns from better pasture management might outweigh the considerable expense of frequent broad spectrum deworming procedures."

Source: ZVA News Mar-Apr/85.

Notes from Swaziland

Source: Parliament Newsletter No. 48, May 87.

A Swaziland postage stamp carried the following motto "Adopt, Adapt and Improve".

Indigenous technology, which has evolved over time, usually reflects the culture of the society. The coconut thatch roof builder is a master craftsman; but he does not use any measuring instruments because the concepts of tolerance, precision, standardization are neither present nor necessary in his sociocultural context.

Source: CAETA Newsletter No. 4 1986; from 'Vocational Education' by Rathindra Nath Roy.

Notes from Zimbabwe

During a late summer (1986) interview the Hon. Moven Mahachi, Zimbabwe's Minister of Lands, Agriculture and Rural Settlement, noted that:

- Zimbabwe's university would produce its first crop of veterinary experts in 1987.

- British and Australian veterinary experts may be recruited to ease Zimbabwe's shortage of vets.

- funds had been secured from the European Economic Community to assist with the tsetse control program.

- extension workers would be urged to inform the people of the latest methods to improve crop and livestock production.

Source: Zimbabwe newspaper, courtesy of Dr. D. Batchelor.

Zimbabwean winter

It rained almost constantly throughout most of the country, with dams and Lake MacIlwaine spilling. Many farmers hoped for some sunny, dry days, as crop roots became waterlogged and milk yields fell as dairy cattle wallowed through muddy paddocks.

In January some 33,631 dogs were vaccinated against rabies by government inspectors. A total of 16,886 cattle were vaccinated against anthrax, most of these were in Matabeleland. No outbreaks of anthrax were reported during that month.

Source: ZVA News Mar-Apr/85.

Swaziland vet

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Diagnostic Laboratory where practising veterinarians send their samples. The laboratory also carries out dip-sample testing on the main acaricides in use: ektoban, disnis and bacdip. The laboratory also carries out autopsy on carcasses submitted by practising veterinarians and animals owners. All activities at the laboratory are under the supervision of the veterinary investigation officer.

Finally, there is a training centre headed by a veterinarian where veterinary assistants are trained after three to five years secondary education. The course lasts for one year. These veterinary assistants are mainly involved in dipping of livestock, deworming and vaccination campaigns. The training centre also organizes workshops and seminars for livestock farmers.

National Veterinary Laboratory

The CwVA News had the good fortune of being given a copy of the 1985 annual report of Botswana's veterinary diagnostic laboratory. This laboratory is now known as the National Veterinary Laboratory. This report is a fascinating, easy to read, document. We recommend it to anyone who is fortunate enough to run across a copy. It is obviously the tale of a dedicated few doing a great deal of excellent work under difficult conditions.

We have taken the liberty of extracting direct quotes from the report. These quotes are descriptive, informative and interesting. The troubled situations will be familiar to many as typical of problems arising from non-technical sources.

About problems and projects:

- "This was the year when all went wrong. -We were reduced to two veterinarians trying to do the work of five and at the same time supervise the building of a new laboratory. 'The services we offered declined, reports were late, the monthly report became a bi-monthly event, the 1984 annual report was not written and much time was wasted, wrangling with ministry officials, trying to get staff. Repeatedly we would drive from the Office of the Director, to the Ministry of Agriculture, to the Director of Personnel and back again. -Nobody cared. Administrators seemed oblivious to the fact that you cannot run a laboratory without trained staff."

- "The laboratory attempted to play its full part in the training and educational processes in Botswana, but because of our severe staff constraints we were having to turn down requests for help. -However at long last the training pro-

gramme settled down to a routine and we could offer our technical staff a definite training programme with predictable goals. The in-service training programme has progressed well, with the 'Staff Training Manual' giving us a good guide to the performance of the young technician."

- "Every year the number of diagnostic submissions increases, partly because of the increasing numbers of animal health workers in the field and partly because of the keenness of the new young graduates from the Botswana Agricultural College. -Submissions of small stock were up almost 25 percent. This undoubtedly arose from more veterinary assistants out in the villages, we are delighted with this evidence of more help for the small peasant farmer."

- "The laboratory was involved with several cooperative projects. Among these were (1) a beef cow performance project with the Animal Prod. Div. of the Dept. of Agric. Field Services; (2) the heartwater project with the Animal Prod. Research Unit; (3) with the Francistown Vet Office and the Agric. Tech. Improvement Project in investigating small stock and donkey performance. -Along with other programmes there was close cooperation with the Royal Dick veterinary team from Edinburgh who were conducting several studies. -Despite all these chores, farm visits by laboratory personnel rose from 50 to 68 visits."

Buildings

- "The new laboratory was scheduled for completion in September, but we did not take 'beneficial occupation' until the 18th December. The reason for this was serious delays on the part of the

mechanical engineering consultants. There were problems with the design of the air conditioning systems: faults in the domestic gas supply and the industrial gas supplies, fume cupboards had to be replaced, the hot water system did not work and there were many other smaller points in need of remedial action. The Department of Electrical Engineering did not order the stand-by generator in good time and so it will be well into 1986 before we can expect to have emergency power. There is no doubt that we now have a very fine building, one of the most attractive buildings in Botswana, one that should be able to serve the agricultural industry as never before. All that is needed is staff to run it. We learnt during the year that all our requests for extra staff had been turned down by our Ministry Headquarters!"

- "From the time that the bids were received to the time that the orders were placed the Pula had decreased by almost 50 percent against the dollar. All the prices had to be recalculated. It will be well into 1986 before this will be sorted out and all the equipments arrive."

- "There was a greatly beneficial aspect to the decrease in the value of the Pula and that was that the value of the African Development Loan increased by a similar amount (the loan being in Units of Account). This meant that after paying for the building there was still one million Pula left in the loan account. It seemed to us that this money could be used for building houses for the staff at Sebele. This was turned down by our Ministry because it would have meant that agriculture would have

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Swaziland observations

The veterinarian in the developing world is faced with a herculean task, to show or make his worth felt by society at large. Many people do not realize that often any worker in the field of animals is looked upon as a vet.

In Swaziland the common tick-borne diseases in cattle are anaplasmosis, babesiosis, theileriosis and heartwater. The question is "how effectively are these being treated?". A casual glance at monthly reports, issued by the smear laboratory gives a very interesting picture.

The smear summary for the year ending December 1985 shows that:

128,737 cattle expired, of these 42,687

died and 68,050 were slaughtered.

in percentages 38.54 percent died and 61.46 percent were slaughtered.

out of that 38.54 percent, 0.67 percent died from babesiosis, 0.001 percent died from blackquarter, 0.009 percent died from bovine benign gonorrhoea.

These figures are interesting and open to a vast range of interpretation. The simplest conclusion is that about 37.86 percent of the cattle died from malnutrition, other nutritional disturbances, and/or non-blood borne infections.

Source: SVA Newsletter Mar/87. 'A look at the smear statistics' by Dr. G.D. Yao Tofa.

Did you know that:

The year 1986 is notable for the 50th anniversary of the recognition of bovine ephemeral fever in Australia and also for being the year that an effective commercial vaccine against BEF was produced by the Australian company, Arthur Webster Pty Ltd., Source: Aus Vet Journ 63 (Sept/86).

Nematodirella dromedarii is a common parasite of dromedaries in other parts of the world. However that worm has not been reported from feral one humped camels in Australia, but it does occur in wild sheep in Iran. Source: Aust. Vet. Jour. April/87 V64 N4 p112.

Quotes from National Laboratory report

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overspent its ceiling. We found it difficult to understand the economics whereby we could not use money loaned to us at four percent to construct staff houses when the government is using commercial loans for the same purpose.

"When we move out all the staff to Sebele, there will be the problem of transport. How will the staff get to work? This would have presented no problem had we been allowed to build houses. The Department of Agricultural Research and the Agricultural College use official transport to bring their staff to work, as does our neighbour the Department of Co-operatives. Because of the numbers of our staff it has not been possible to link up with either of these organizations: the Central Transport Organization has been unable to provide us with a bus and so it seems that we shall have to employ a private contractor until the bus promised to us by our Director arrives."

"Through purchases and donations the library acquired 84 new text books and similar publications. Regrettably, it seems that the expansion of the library facilities will almost come to a standstill unless its budget for the next financial year is considerably increased. The costs of new text books and subscriptions to journals have, due to exchange rates and other factors, often more than doubled compared to a year ago."

"There is however also some good news. The library has a spacious room available in the new laboratory building and it will thus become more accessible to the laboratory staff and other interested parties in the Veterinary Department. A request has been made for a temporary librarian to help with setting up the library and with the documentation."

Diseases

There a great variety of disease conditions; only a few are commented on.

"There is a great need to inform both the farmers and the staff of the Veterinary Department of the meaning of the term 'Notifiable Disease'. People do not realize that they have a legal obligation to inform the Veterinary Directorate if they suspect such a disease in animals. Perhaps the time has come to mount a campaign to alert people to the dangers of such notifiable diseases as rabies, tuberculosis, brucellosis. This could be done by radio and articles in the newspapers."

"There were 178 brain submissions and 71 of these were positive for rabies.

Included in the positives were 29 bovine and 23 canine."

"A woman in Tsetseng village near Kang was bitten by a jackal while sleeping during the night. The woman refused treatment and we later learned she died from rabies, no brain specimen was sent in this case. However the jackal was killed and was diagnosed positive by histopathology (no brain was sent in 50 percent glycerol) the sample took a month to reach Gaborone. In the same area another woman was bitten by a jackal and fortunately in this case the woman received treatment. The jackal was positive rabies."

"Another bad incident was a man at Tsetsebjwe (Selibe Phikwe District) who was bitten by a rabid dog and killed it. Fortunately he was treated. A leopard which was diagnosed positive rabies also entered a farm and attacked people. The people received very bad injuries and they were all treated in the local hospital, no fatalities ensued."

"Human corneal impression smears were also submitted from Molepolole Hospital. The child was bitten by a dog and the doctor suspected rabies however the diagnosis was negative. The child lived."

"Anthrax was diagnosed again after a long quiescence. The last reported and confirmed case of anthrax was in a bullock from Gaborone in 1979. Prior to 1979 no case had been seen since 1974 when a case in a goat was confirmed at the laboratory. No anthrax was seen during 1971 - 73."

"It would appear that this continuous effort (free anthrax inoculations) has been very successful in controlling the disease."

In October 1984 the Ministry of Health suspected anthrax in Itape settlement in Central Kalahari, Ghanzi District. This was never confirmed (four people died). The only samples received at the laboratory were cooked tissues from a goat.

In June and July 1985 three outbreaks occurred in the Molepolole District. In the first case 10 out of 59 cattle died at a cattle post about 100k southwest of Molepolole. Three weeks later there was a new outbreak in goats in Takatokwane 132k west of Molepolole followed by a third outbreak also in goats at Dutlwe another 44k to the west. Vaccination of surrounding animals was recommended in all three cases and the deaths stopped.

In October and November cases of anthrax started appearing in goats in the Jwaneng area. In all, three flocks

were affected with losses of 10, 4 and 28 goats respectively. The laboratory confirmed the diagnosis. Vaccination was commenced in the area. 52,676 cattle and 17,365 small stock were vaccinated against anthrax.

Goats in many instances reacted very violently to the vaccine and about 200 head died due to these vaccine reactions. This of course led to an outcry among the stock owners and the vaccination of goats was stopped. Until the end of the year it appeared that the deaths due to anthrax also stopped.

These observations certainly prove that anthrax is still present in Botswana and though the extensive vaccination programmes (almost solely of cattle) practised during more than 20 years appear to have almost eliminated the disease, the potential is still there. This should be a reminder that the vaccination campaigns must be taken seriously and the increasing tendency of livestock owners not to bring their animals for vaccination must be discouraged.

As regards vaccination of goats, great care must be taken. Leaflets must be read carefully and instructions given in these strictly adhered to.

"The most significant feature of this year was the massive nationwide outbreak of Newcastle Disease. A rip-roaring virus was involved which caused massive mortality, up to 100% in some units and some villages. Other infections of poultry pale into insignificance beside it. We were also involved in sorting out serious managerial defects in some of the larger poultry flocks in the country. In 1981 the avian specimens received were about 1/4 of the bovine; this year they were more than half. This undoubtedly reflects the growing importance of the poultry industry.

"We estimated that 25% of the national flock died from this infection. Entire village populations were wiped out, the dramatic effects of vaccination were seen when an unvaccinated government flock was decimated whilst a nearby vaccinated flock was untouched.

"Having now mentioned all the infectious causes of abortion known in Botswana, it must be stated that the great majority of abortions in cattle and indeed in all ruminants - was not due to these agents but were as a result of the drought and subsequent starvation."

"When an animal comes under great stress - as is the case in starvation - the natural reflex is to rid itself of all en-

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Heartwater important cause of cattle deaths

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cumberances. Many hundreds of abortions in cattle in 1985 in Botswana must be attributed to the drought alone."

"Although figures for Heartwater diagnoses were down on the 1984 figures, this still remains an important cause of cattle deaths. With the exception of Heartwater, tick borne diseases in 1985 were remarkable by their absence."

"Helminthiasis was as always one of the conditions involving the greatest number of deaths. We are never able to say how many died due to infestation with internal parasites as the condition is so often confused with starvation - especially in drought years. However we had 93 batches of faeces showing significant worm egg counts - by significant we mean counts of 700 e.p.g. upwards. These faeces samples came from all over the country but pride of place must go to Mochudi which produced a sample of faeces having a count of 20,500 eggs per gram."

"Senkobo Disease (Dermatophilus congolense) was the most common skin disease in cattle - four confirmations being made - which really does not mean a thing as you can find it any day and all over the place in the Chobe area. Years ago there were over 20,000 cattle in Chobe district, now it is something like 4,000."

"In Smallstock the high incidences of parasitic gastroenteritis in a climate most unfavourable to free-living stages of endoparasites continues to be an intriguing question that should be looked into more closely. Of equal interest is the fact that, despite the drought coccidiosis was diagnosed more of ten than ever before."

"Also in small stock lice infestations were diagnosed on several occasions in the southern regions of the country. Frequent reports of very poor conditions and deaths, particularly in parturient small-stock, have regularly been received country wide and our results show that both internal and external parasites may have been exacerbated by such poverty. However, sheep scab has not been diagnosed in the past five years."

"Twenty-three cases of Botulism were recorded although in most cases we were unable to confirm the disease. Confirmation of Botulism is recognized worldwide as a difficult and often impossible procedure. However we were able to confirm the presence of Botulism toxin in two serum samples both from Mahalapye District."

"Incidence of the disease has of course been much higher during the drought

years, 52 outbreaks being recorded in 1983 and 18 in 1984. These figures really mean very little as cattle owners get to realize that we cannot do much to treat this disease and as a result do not bother reporting it. Botulism has been occurring country wide, and it is quite certain that deaths have run into thousands."

"Vaccination is very effective, involving two doses of vaccine at approximately seven weeks interval. Unfortunately it often occurs that the second dose is not given resulting in subsequent breakdown in protection."

"It is most important to feed bonemeal when conditions are beneficial for development of Botulism, as this prevents 'pica' which results in cattle picking up the preformed toxin in bones and other debris. Burial of dead animals also helps to stop the disease spreading."

"During one outbreak of botulism in March almost a whole flock of fifty goats plus a few head of cattle died in a matter of a few days. When the veterinary assistant was first called more than thirty goats were found to be off their feet. When made to stand the hind legs buckled under them. The diagnosis was complicated by the presence of a heavy helminth burden in the animals. During another outbreak in October approximately eighty sheep died after having shown signs similar to those observed when the goats were affected. A staff member visited the cattle post concerned and his investigation led him to suspect the well water or the water trough as the source of the botulism toxins. (This was not confirmed)."

"We had sixteen confirmations of poisoning in cattle by the plant Pavetta harborii. In the case of Pavetta these figures make a mockery of the true position. The plant occurs only north from Mochudi, and by the month of May at least 500 cattle had died from eating it. Deaths continued through the winter in particular and we can only guess at a figure - certainly in excess of 1,000. Unfortunately during conditions where there is no grazing, Pavetta appears as a lush green shrub and as such seems to be irresistible. Feeding with hay will help to stop animals eating it although deaths may continue afterwards due to the delay in action of this poison. The worst hit area was west of Mahalapye in the sand veldt."

"No diagnosis of poisonings caused by poisonous plants were recorded for small stock. This is amazing since poisoning due to Pavetta harborii was

common in cattle in some parts of the country."

"Snake bite, never a major problem, is nevertheless of interest each time we see it. Of the three cases recorded two occurred in calves in the month of March at two different government ranches. Both were typical Puff Adder bites. Puff adders are probably the most common snake involved as they are so sluggish in their movements except when striking - especially when the weather is starting to get cooler. A Puff Adder bite usually results in gangrene and is not particularly amenable to treatment even by anti-venom. In both cases several animals were bitten which made the management reluctant to accept our opinion, until several adders were seen in the kraal."

"Poisoning due to the application of an overdose of Nitroxylin (Trodox R) was seen twice. The first incident involved a flock of about 50 goats, 19 (or more) of which eventually died due to the affects of the drug. In the course of a second outbreak, which concerned a different flock, some 5 young goats died. It was quite astonishing to learn that both incidents took place in areas where the liver fluke does not occur and where Nitroxylin, primarily a liver fluke remedy and not recommended as a broad spectrum anthelmintic, should not be used at all."

"Breeding problems in small stock were again not uncommon. Abortions were reported from all parts of the country. From a number of cases specimens were collected and submitted to the laboratory where routine bacteriological and serological investigations gave negative results for each and every case. As in previous years, we suspect that the, generally, very poor condition of the parent stock due to the drought was responsible for a large number of the abortions that occurred. Complete lack of attention at parturition will also play its part in neonatal mortality."

"The pig submissions nearly trebled this year, 36 as compared to 13 in 1984, still pigs make up a very small part of our work. The findings were very varied with no dominant condition."

"An interesting case was a captive crocodile from Maun with haemorrhagic enteritis. The animal was found to be suffering from coccidiosis and also worms. There were 2600 worm eggs per gram of intestinal content. Unfortunately the worms were not identified. Thirteen crocodiles died before the outbreak was brought under control."

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Recommendations from poultry survey

(Editor's note - This was one of several 1985 studies conducted in Botswana by a team of workers from The Royal (Dick) School of Veterinary Studies, University of Edinburgh).

The reason that this study was undertaken was to find out the health status of village chickens, and to gather basic information on management. It was felt that poultry might well be an important source of protein to children in rural areas, and that any increase in productivity might have beneficial effects for the children. The project developed as it went along additions to the work resulting from what had gone before. Basically the work consisted in completing a questionnaire for each poultry owner, examining live and dead birds and taking samples from birds which were examined either on the spot or back in the laboratory.

The conclusions of the team were:

1. Poultry meat and eggs are a very welcome and useful addition to what can be a poor quality diet.
2. The standard of management of village poultry was found to be much higher than expected with many households showing a high degree of care.
3. Predators appear to be a significant cause of loss in all areas, especially among the young birds.

4. The most important diseases found were fowl pox, fowl typhoid, Newcastle Disease, infectious coryza and infestation with external parasites.

5. The use of medicines is common and widespread, but rather haphazard and misguided. Traditional medicines are fairly popular with many villages.

6. Use of the agricultural and veterinary services is very poor.

The team also made some very useful recommendations:

1. As each village essentially constitutes one large flock, disease prevention should be approached on this basis.
2. Veterinary Assistants (VAs) and Agricultural Demonstrators (ADs) should organize the vaccination of all birds in their village, charging the householder a nominal amount for each bird.
3. It is recommended that all birds be vaccinated against fowl pox, fowl typhoid and Newcastle Disease.
4. VAs and ADs should dust all poultry with external parasiticides at vaccination and frequent intervals thereafter. They should charge sufficient to recoup the costs of the medicine.
5. Each village should have a communal covered poultry run into which anyone may place his laying hens and

those with young chicks. This will reduce loss from predators, but is essential that the birds are fed and not allowed to be overcrowded.

6. VAs and ADs should have regular meetings with poultry owners to discuss problems.

7. A cockerel of a good meat and egg producing breed should be introduced to increase the productivity.

Towards the end of the project these recommendations were tried out on a small scale at Kgapamadi, a small village near Gaborone. The birds were vaccinated against fowl typhoid and fowl pox (there being no Newcastle Disease Vaccine available), the birds were dusted regularly against external parasites. Chicken runs were built, with shade netting and nesting boxes. There was no doubt that those owners who used the houses had significantly more chicks than those that did not. However, before the trial was completed the village poultry were decimated by Newcastle Disease. The Laboratory staff shortages prevented the project being followed up for some weeks. However, this work is now being continued and all the birds are vaccinated against Newcastle Disease.

Source: 1985 Annual Report of the Botswana National Veterinary Laboratory.

Severe stress, poor condition cause of deaths

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"In connection with the much publicized exodus of eland into South Africa, about 50 animals were captured by the game department and taken to Dithopi near Lephepe. A number of these animals died no doubt mainly due to the severe stresses they had been subject to, while in their poor condition. A visit to Dithopi showed that the eland were massively infested with blood-sucking lice (*Haemotopinus eurysternus*). The eland were given acaricide treatment. We understand from the Wildlife Department that 30 survived and are putting on weight. At the same time eland, in poor condition around Dithopi, were captured and brought to Gaborone. Thirty-two went into the game park and sixteen died. The remaining sixteen are now progressing well. Eight more from Dithopi went to a local game park, where they were confronted by a torrential downpour. This was too much and all eight died."

Public Health

"A great deal of concern arose with the report that a child had died and 30

more were in hospital in Serowe after eating a school lunch. The Laboratory was inundated with a fairly ancient version of the meal, together with a large selection of the ingredients. Bacterial counts and examinations were made but it was obvious that bacteria were not the cause of the problem. The outbreak was by now on Radio Botswana and in the press.

It was found that the dead child had not consumed the food and had been ill for some time. Most of the children who were kept in hospital had mild signs: headaches, vomiting and diarrhoea. It was thought that the food had been contaminated with some poison and so it was sent to Onderstepoort for analysis. Because the origin was human they in turn passed it to the Health Chemical Laboratory in Johannesburg who were able, by mass spectrophotometry to demonstrate very low levels of chlorpheniramine on the grain, and in the porridge part of the meal. Various food stores that supplied the grain to Serowe sent us samples and from the stacks in Serowe and Palapye, but not

elsewhere the poison was detected. We were informed by the Johannesburg staff that this chemical was commonly used to preserve grain from insect damage; that there was no need to discard the food. All that was required to ensure that the grains were well washed before they were cooked."

A seven year old boy who ate a large beetle was admitted to Princess Marina Hospital with tachycardia, haematuria, lethargy, nausea and vomiting. A sample beetle was brought to us and identified as a blister beetle, *Mylabris oculata*. These are black, rather oblong shiny beetles with some large yellow spots on the dorsal side (known also as "Cape Mounted Infantry") and they produce a chemical toxin, we were able to identify the beetle so that treatment could be directed against the toxin cantharidine. A somewhat less dramatic incident concerned a woman who reacted after being bitten by tiny insects in Serowe. These proved to be small, red ants whose bits can be quite painful.

Test detects most common antibiotics

Knowledge is the foundation of all disease control. Intelligent and progressive regulations are the pillars on which disease control rests. The CwVA News is pleased to carry these items depicting examples, one from Australia and one from Canada.

Increased Scrutiny of Antibiotic Residues in Meat

The Export Inspection Service (EIS) of the Commonwealth Department of Primary Industry has developed a laboratory test for antibiotic residues in slaughtered livestock. The test will detect most commonly used antibiotics, including chloramphenicol and sulphonamides, and may be carried out by EIS veterinary officers in laboratories at export abattoirs.

Because EIS veterinary officers at abattoirs will have the ability to conduct tests at any time, samples may be

taken from carcasses of livestock suspected of having been recently treated with antibiotics, for example intensively raised pigs, culled dairy cows, bobby calves or emergency slaughter animals. Such testing will be in addition to the present National Residue Survey. Additionally, because test results will be available within 24 hours, carcasses from which samples have been taken will be held until cleared. Should the test be positive, further samples will be forwarded to approved laboratories for confirmatory and quantitative tests. Meat containing antibiotic levels above those set by the National Health and Medical Research Council will be condemned.

Veterinarians will be providing an important service to their clients by informing them of the proper use of antibiotics and by emphasising

withholding periods prior to slaughter when antibiotics are administered therapeutically, prophylactically or for growth promotion.

Registered antibiotics are now required to be labelled with withholding periods. Adherence to withholding periods does not guarantee that meat will be free of antibiotic residues if the correct dose rate is exceeded.

Public health veterinarians, in taking judgements in the area of consumer protection, rely heavily on their field colleagues playing their part in seeing that livestock arriving at abattoirs are free of drug residues.

CG Field

Export Inspection Service

Source: AUS VET J63 (Oct/86) AVA NEWS

Encephalomyocarditis virus disease

J.T. Seaman, J.G. Boulton
and M.J. Carrigan
New South Wales
Department of Agriculture

SUMMARY: An epizootic of encephalomyocarditis virus (EMCV) disease in pigs in the central west of New South Wales in association with a plague of mice (*Mus Musculus*) in 1984 is described. The disease was confirmed in 47 outbreaks in 37 piggeries and 1152 pigs died, representing an overall death rate of 17.4% in pigs considered at risk. The disease was diagnosed in both intensively housed pigs and pigs farmed outdoors, with mortality rates higher in piggeries with less than 50 sows. The age at which pigs died ranged from 4 days to 24 weeks with higher death rates in younger pigs. Serological testing of pigs slaughtered at Blayney abattoir indicated EMCV infection to be more widespread than the disease reported. Mice were present in all piggeries reporting the disease while rats were present in 66% of the outbreaks. The role of rodents as natural reservoirs of EMCV and the possibility of variations in pathogenicity amongst strains of the virus are discussed, Aust Vet J 63: 292-294

Discussion

This epidemic of EMCV disease in pigs was more extensive than any previously recorded in Australia, and it coincided with an unusually severe plague of mice (G Saunders personal communication). The epidemic occurred in the same location, and at a similar time of year as a substantial

epidemic in 1970, which was also associated with a plague of mice (Acland and Littlejohns 1975). Few cases of EMCV disease in pigs have been confirmed in the intervening years. The occurrence of epidemic disease after a long period of low incidence is consistent with an unusually severe challenge to a regional pig population with a low level of immunity.

Several factors may have contributed to the high mortality rate in pigs of sucking age. Experiments with mice indicate that EMCV is more pathogenic to the myocardium of younger animals (Tsui et al 1971). Subclinically infected suckling sows can fatally infect their litters (Boulton 1984) and this transmission may be more efficient than rodent-to-pig or less intimate pig-to-pig contact (Littlejohns and Acland 1975). Finally, there may have been little protection of piglets by colostral or milk antibody because of a low level of immunity in the regional pig population.

The second peak mortality in 3- to 6-month old pigs reported by other authors (Acland and Littlejohns 1975; Ramos et al 1983) did not occur in the present epidemic. However, those reports were at least partly based on data from regions where EMCV endemically infects pigs, and where maternal antibody probably affects the age at which pigs become susceptible to the disease. In the present epidemic, there were no confirmed cases of EMCV disease in adult pigs.

In many piggeries mice were present in plague concentrations for at least 2 to 3 months before disease due to EMCV was recognised in pigs. Numbers of mice were greatest in piggeries during May, June and early July, probably because they sought refuge from cold winter weather. Their numbers decreased in late July following heavy rains, and the incidence of disease due to EMCV subsequently declined. Rats were reported to be associated with 66% of outbreaks, in which 82% of the reported deaths occurred. Dead mice were reported in pig pens in only 33% of outbreaks.

Work in Queensland (Pope and Scott 1960) and in Hawaii (Tesh and Wallace 1978) indicates that *Rattus ssp* are the principal asymptomatic reservoir of EMCV. The role of rodents in the epidemiology of EMCV infection warrants further investigation. The delay between plague concentrations of mice and the occurrence of disease in piggeries suggests that there is a low prevalence of EMCV infection among mice when they first move from the open into piggeries. Perhaps the prevalence of infection increases while the mice are concentrated in piggeries, ultimately causing transmission to pigs. It may be that only piggeries with a high density of infected rats have significant deaths from EMCV infection. Possibly mice are only infected when they come in contact with infected rats but they may amplify infec-

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Artificial insemination program

Since the first cow was inseminated commercially in Nova Scotia in 1940, the growth of the Canadian A.I. industry has become one of the great success stories of our livestock development. So extensive is the use of A.I. by Canadian dairy cattle breeders that 90 per cent of the calves registered each year are the result of A.I. service.

A system of federal approval of semen production centres was established in 1961. Today, a total of 12 approved bovine semen centres provide A.I. services to the Canadian livestock industry. The centres operate under official veterinary supervision in regard to hygiene and health of the animals.

The national A.I. health program ensures that all semen donor bulls are maintained under strict health testing and sanitation standards. The resident donor bulls at the approved A.I. centres are routinely subjected to tests and examinations for tuberculosis, brucellosis, leptospirosis, bluetongue, paratuberculosis, enzootic bovine leucosis, *Campylobacter fetus* infection and trichomoniasis. As a further safeguard, all semen is subjected to antibiotic treatment during processing prior to freezing. Regular consultation

meetings between the Canadian Association of Animal Breeders, representing the A.I. industry, and Agriculture Canada veterinarians are held every six months to discuss problems and to determine the need for updating program policy.

To meet the demand for superior proven A.I. sires, Young Sire Proving Programs are conducted by the A.I. businesses as a means of making such selections. Specially selected young bulls are sampled for a brief period and then withdrawn from service until the performance and conformation of the daughters is known. The process of

selecting, sampling and culling all except superior bulls ensures that the best genetic material is being transmitted and dispersed through Canadian herds and into a growing number of international markets.

A combination of high standards of health and genetic merit has attracted a worldwide demand for Canadian cattle and semen. More than 20 million doses of bovine semen have been exported to 101 importing countries since the official approval of A.I. centres was initiated 25 years ago.

Prepared by: Food Production and Inspection Branch Agriculture Canada

New parasite problems found in intensive poultry production

The external parasite problem of poultry has changed completely with the change of the poultry industry to intensive production. Lice are rare when chickens are separated from older birds. Mites, which complete their life cycle away from the birds, seldom infest caged layer houses. However, the accumulation of droppings under caged layers are a problem to remove and can provide ideal breeding grounds for a variety of insects, including the house fly, and a beetle, the lesser mealworm, *Alphitobius diaperinus*. This beetle is

commonly found in poultry houses where it can be a pest causing serious damage to polyurethane or polystyrene insulation. In caged layer houses on a farm with fiberglass insulation in the ACT, the beetle is established by seeding and encouraged by control of temperature and ventilation to build up and maintain large populations in the dung. It now plays an important role in drying out the moist dung which is rendered unfavourable for fly breeding and is easy to remove.

Source: *Aus Vet J* 63(Sept/86).

Lameness and fertility in dairy cows

The association between lameness and fertility in dairy cows has been studied at the Institute for Research on Animal Diseases at Compton in England.

One thousand, four hundred and ninety-one lactations in 770 Friesians, Holstein and Ayrshire crossbred cows were used to study the associations between lameness and fertility.

Lameness was associated with a longer interval between calving and first service and longer interval between calving and conception. The largest increases in these intervals, of 17 and 30 days respectively, occurred in cows with either sole or white line lesions occurring between 36 and 70 days after calving. The conception rate during the 63 days before a diagnosis of lameness was made was lower (31 per cent) than at other times (40 per cent).

(S. Lucey, G.J. Rowlands, A.M. Russell, *Veterinary Record* (1986) 118, 628-631).

Source: *Aus Vet J* 63(Sept/86).

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tion and transmit the virus to pigs.

EMCV infection had been clinically detected in only one of the 10 piggeries in which it was later serologically detected. This suggests that infection was more widespread than in the 37 piggeries which received veterinary confirmation. From the mail survey an additional 20 outbreaks of suspected EMCV disease were also reported on known infected piggeries, so the total losses in the area were most likely considerably more than reported in this study.

None of the piggeries affected in this outbreak with disease due to EMCV had experienced the disease previously. The mouse plague was equally severe in other inland areas of New South Wales but the incidence of disease due to EMCV was much lower. The disease

EMCV report

is endemic in the north eastern part of New South Wales but does not exhibit the epidemic pattern seen in the central west. Deaths due to EMCV infection are rarely diagnosed in the Riverina and southern areas of the state, however EMCV was associated with a syndrome of reproductive failure in pigs from the south west slopes area of New South Wales during the 1984 mouse plague (Links et al 1986). Andrews and Pereira (1978) report that although antigenically similar, EMC viruses are biologically diverse. As proposed by Acland and Littlejohns (1975) the incidence of disease due to EMCV may be related to variation in pig pathogenicity among the strains of EMCV, or to variation in the prevalence of infection among its natural reservoir rodent hosts.

Source: *Aust. Vet. J.* Vol. 63, No. 9, Sept. '86

Nematode larvae enjoy shade

There has been increased interest over the last 15 years in grazing livestock in exotic forests and a number of agroforestry trials are currently sited throughout New Zealand. Preliminary evaluation of these suggests that agroforestry provides considerable economic and social advantages to farmers and rural communities. To date, quantitative and comparative data on livestock performance are available from only one research forestry farm. On this farm, an inverse relationship was found between tree density and bodyweight of ewes and, whilst there may be several reasons for this, anthelmintic drenching trials have suggested that gastrointestinal

parasitism contributed to the suboptimal performance.

A study was made to compare the numbers of infective ovine nematode parasite larvae on an open pastured block and an adjacent block forested with pines. Infective larvae of six genera were recovered over a 12 month period viz., *Trichostrongylus* spp., *Ostertagia* spp., *Cooperia* spp., *Nematodirus* spp., *Chabertia*/*Oesophagostomum* spp. and *Haemonchus* sp.

The numbers of *Ostertagia* spp. and *Trichostrongylus* spp. larvae recovered from the pine block were consistently higher than those recovered from open pasture. This suggests that the environ-

ment under the trees was more favourable for the development and survival of the larvae. Other studies indicate that it is cooler during the day and warmer at night under the trees.

Results from this trial suggest that there is better survival of infective nematode larvae in the pine blocks than on open pasture. The lower mean body weights of sheep grazing the pine block was considered to be due to the greater exposure to infective larvae and marginal undernutrition.

Source: New Zealand Vet J: V34 N12 Dec/86: The availability of ovine infective trichostrongyle larvae on forested paddocks: Authors Drs. R.A. Jackson, K.G. Townsend and M.F. Hawke.

Spring - the wormy season

In India, 'spring-rise' is a phenomenon in which there is a sudden marked elevation in strongyle egg count in sheep during the spring. It is associated with a comparable increase in adult stages of the parasites responsible. Bred ewes show the peak invariably about four or five weeks after parturition and as such this phenomenon is also known as 'postparturient', 'periparturient' or 'lactation' rise. This phenomenon was recently investigated in sheep of the Haryana district of India.

The spring-rise phenomenon itself

has been attributed to one or more of the following possibilities - (a) En masse maturation of arrested worms within four to six weeks after parturition. / (b) Parturition triggers a relaxation of resistance to the arrested worms allowing them to mature and produce more eggs per female worm. / (c) In lactating animals newly acquired worms or those emerging from arrested development persist and grow to maturity in large numbers, accounting for increased egg output. (d) Climatic and environmental conditions of spring are most favourable for the survival

and spread of worms.

The report on this study notes the following interesting observations - (a) *Trichostrongylus* spp. was the major contributor to the parasitic population throughout the year. / (b) This spring-rise phenomenon, independent of parturition and en masse maturation of arrested larvae, occurs in bred and open ewes and in rams. / (c) A fresh acquisition of worms is authenticated by the postmortem worm count and the study of tracer lambs.

Source: Indian Vet J June/86. Authors R.P. Gupta, N.S. Ruprah and C.L. Yadav.

Clinical mini-notes from India

Poultry

It was noted that the fungal population in poultry sheds was favoured by increased alkalinity accompanying litter aging. Litter in use for one month or more was alkaline. It is apparent that keeping of the litter for a longer period increases the build up of the pathogenic spore load. The change of litter considerably decreases the spore load in a poultry shed thus reducing the atmospheric spore concentration. It is thus evident that frequent changes of litter would be helpful in reducing the spore concentration and subsequent hazards from pathogenic spores. (Authors: S.T. Tilak and M. Saibaba).

Wormy Pigs in Assam

Pig rearing is a household vocation amongst the tribal population in the State of Assam in northeastern India. Due to its peculiar agroclimate the region provides a very congenial environment for the growth and development of different parasites. Amongst

them, helminth parasites are causing great health hazards to the pig population.

In a recent study of the situation in the Kamrup district of Assam 142 pigs were examined at slaughter. Five species of trematodes, six species of nematodes and one species of acanthocephala were found to be prevalent. Mixed infections were the rule, with the

maximum mixture of species found in a single pig to be six. The three most prevalent trematodes were *Fasciolopsis buski*, *Gastrodiscoides hominis* and *Artychinosomum sufarutyfex*. The three most prevalent nematodes were *Ascaris suum*, *Physoccephalus sexalatus* and *Ascarops strongylina*. (Authors: B.N. Dev Sarma and A.R. Gogoi).

Source: The Indian Vet J May/86.

Australia mini-note

In a disease such as caseous lymphadenitis, lesion site, size or number do not indicate the severity of the disease but rather, reflect the ability of the host to mount a cellular response to infection.

Source: Aus Vet J 63(Sep/86) re caseous lymphadenitis by R.G. Batey.

Pneumonia in koalas

Spasmodic outbreaks of pneumonia, associated with *Bordetella bronchiseptica*, have been reported (1979) in a captive koala colony near Brisbane, Australia. The outbreaks tended to occur during winter when the koalas were on a low plane of nutrition, and most often affected newly weaned and aged koalas.

Source: Aus Vet J 63(Sept/86) pg312.

Cattle, buffalo victims of Jembrana

The cause of Jembrana disease is unknown. Its victims are the cattle and buffalo of the Island of Bali, Indonesia. It initially appeared in the Jembrana district of Bali and in 1964 was reported as an epizootic. It is estimated that, by September of 1967, 60,000 head of cattle and buffalo had died.

In April 1972 a less severe form of the disease broke out in an area bordering the Jembrana district, only Bali cattle were affected. In 1974 it reappeared in Bali as an epizootic. This outbreak was investigated by a United Nations Development Program/Food and Agriculture Organization (UNDP/FAO) team.

In May 1978 a suspected outbreak occurred at Lampung, South Sumatra. There it was called 'Rama Dewa disease'. However it affected only Bali cattle and it was clinically and

pathologically similar to Jembrana disease. In November 1978 other suspected outbreaks occurred in the Banyuwangi district of East Java.

Except for Sumatra and East Java all reports of Jembrana have come from Bali. On Bali the general incidence of the disease declined during 1976-80 but became epizootic again in 1981.

Clinical signs include anorexia, fever, enlarged lymph nodes, nasal and ocular discharges, increased salivation, mucosal erosions in the mouth and throat area and diarrhea. Postmortem findings include hemorrhages, enlarged liver and ascites, internal lymph nodes show less enlargement than do the superficial lymph nodes. Animal diseases that have been considered in the differential diagnosis of Jembrana disease include rinderpest, bovine viral

diarrhea, hemorrhagic septicemia, malignant catarrhal fever, theileriosis (East Coast fever), bovine petchial fever, bluetongue, Ibaraki and foot-and-mouth disease.

Jembrana, with its detrimental impact on animal production, has been of grave concern to Balinese and other Indonesian livestock producers.

The source of the information in the above item is from an article (Focus on Jembrana Disease), by Dr. James T. Cavanaugh, in the 'Disease Control' section of the June, 1986, issue of agriculture Canada's 'COMMUNICATION'. The article was reprinted from the September 1985 FOREIGN DISEASE REPORT. Readers are reminded that 'COMMUNICATION' is available, through the courtesy of Agriculture Canada, from their CwVA Council Member.

Long acting treatment for rabbits

Injecting rabbits with a long-acting oxytetracycline has proved to be a safe and effective means of treating major diseases in this species, according to research reports by Pfizer International Inc.

In five clinical studies, rabbits artificially injected with one of four bacteria - *Pasturella multocida*, *Bordetella bronchiseptica*, *Escherichia coli*, or *Salmonella* Spp. - recovered after treatment with 50 mg/kg bodyweight of Terramycin*/LA, a broad spectrum injectable that provides three to five days of serum antibiotic activity.

There was 100% mortality in the untreated controls. Autopsies confirmed that all the deaths resulted from the introduced bacterium.

In toleration studies to monitor the safety of the injectable, doses up to 400mg/kg were administered to rabbits with no sign of intolerance or adverse reactions over a 12-day post-treatment interval.

Likewise, in the pharmacokinetic studies, 135 rabbits injected with doses of 50 or 100 mg/kg showed no detectable tissue residues 10 days after treatment.

An additional finding in this study was that concentrations seen in lung tissue follow very closely those seen in the blood. This activity, which has also been noted in other species, appears to be unique to Terramycin/LA.

*Terramycin is a Pfizer Inc trademark for its brand of oxytetracycline.

Source: Aus Vet J 63 (Oct/86) AVA News under New Products.

Clinical pluronon poisoning

Thirty-two weaner calves, five to seven weeks old, being fed a diet of grass and milk, were thought by the attendant to be mildly bloated. In an attempt to correct this he added an unknown quantity of a pluronon-type detergent bloat drench, Blogin Bloat Oil, to the calves' milk. Within two hours the calves became depressed, began shaking, and exhibited a droop of the ears. Within 24 hours 28 of the calves had died in convulsions.

Symptoms — By three hours after feeding, five calves had died and the remainder were all trembling and depressed. The condition progressed rapidly, during which the calves adopted sternal and then lateral recumbency. Rumenal tympany was seen in many calves, with accompanying respiratory distress, bellowing, and tongue protrusion. In the final stages before death, which occurred over the following 24 hours, paddling

movements of the limbs, rapid nystagmus and opisthononus were evident.

Post-mortem — All tissues appeared normal apart from mild blood speckling of the omentum. The rumen contents contained excessive amounts of gas and the omasum was full of pink curd.

On consulting with colleagues the author was made aware of other misadventures with pluronon compounds. On one occasion, at least, it seemed definite that the victimized calf had received only a very small amount of the bloat oil. The author suggested, obviously with good reason, that a warning on the labels of pluronon compounds, to the effect that these compounds should not be used in calves, would be advisable.

Source: New Zealand Vet J July/86 Author W.R. Teague.

Lungworm in impala

A lungworm affecting impala has been identified from within Zimbabwe. It would appear that the parasite is confined to certain areas of Zimbabwe and does not occur in others. The Metastrongylid causing the disease is *Metastrongylus calcaratus* (Monnig 1932). Unlike *dictyocaulus* sp. this species requires an intermediate molluscan host for successful completion of its life cycle.

Source: Zimbabwe Veterinary Association News July-Aug/85

The Gambia - home again

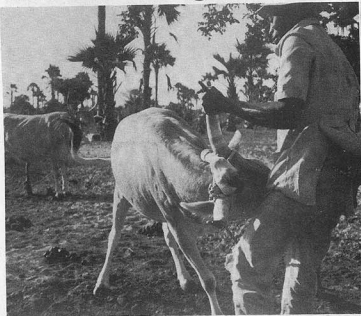
So it was with the CwVA when its executive and other representatives started arriving at Yundum Airport, some 25 kilometers from Banjul (formerly Bathurst) the capital city of The Gambia. It was here, with its first executive meeting, that the Commonwealth Veterinary Association took form and joined other professional groups, belonging to the CPA.

The Gambia is indeed a pleasant land to come back to. During that week of meetings (March 1987) the sun shone all day every day. A pleasant breeze blew in off the Atlantic, the white sandy beaches were always an attraction, coolness came with the evening, a cover was needed at bedtime and the mosquitoes were few and far between.

The Gambia, a small country of some 400 square miles and a half million people, straddles the Gambia River. A river so wide at its mouth that you cannot see across to the far shore. It is a republic with a stable democratic government. It is a Muslim country with more than 90 percent of its people following Islam while the remainder belong mostly to various Christian denominations. Despite numerous ethnic groups, often with their own language, harmony and tranquility prevail. The Gambia sets an example in tolerance of which it can be justly proud.

The Gambians, we met, were a tall, dark, sturdy people with an easygoing charm. To visit small businesses and craft shops is an intriguing and enjoyable experience. In a hospitable atmosphere of friendship and warmth the African system is explained to you. There is a seller's first price and a buyer's first price, they mean nothing. Then a second and a third and a fourth pair of prices. Finally the prices blend together and a deal is struck. Now, that my purchase hangs in our home and is much admired as a very fine woodcarving, I realize that I did get a real bargain. I only hope that my Gambian friend who sold it to me made a decent profit.

The great variety and numbers of birds fascinated all of us from overseas. Very impressive also was the appearance of the indigenous cattle, the Ndama. For countless generations the herders of West Africa have recognized the value of the ability of these cattle to withstand the ravages of trypanosomiasis. After years of observation and study many experts are now concurring with the herders.



A herder applies restraint to a cow by holding his thumb, index and middle fingers of right hand on the nostrils, left hand holds left horn and the left front foot is hooked over base of left horn and top of head.



A wood-carver demonstrates his trade for the photographer.



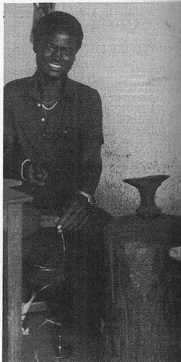
Speaking at a seminar is a dedicated veteran from Kenya, George Kamau (right). On the left is chairman Gavin Hamilton of Canada.

CwVA Veteran

All of his old friends expressed pleasure at seeing George Kamau once again. George, Kenya's council member, is one of the real veterans of the CwVA for he took part, as an official representative, at the earliest CwVA meetings. It was on the shoulders of workers, like Dr. Kamau, that the CwVA successfully shuffled its way through the problems of youth, and now all look to the future with an air of confidence and a sense of purpose.



A proprietress in front of her dress shop.



A young silversmith at work.

The Gambia - onsite comments



Early arrivals for a seminar are Jabula Dube (Swaziland) on left, Lansana Kallon (Sierra Leon) third from left and Peter Msolla (Tanzania) far right.

'A week well-spent' was the most conservative of comments to be heard as the week of CwVA activities in The Gambia approached its final day, Friday the 27th of March 1987. Peter Robinson of the British Agricultural Training Board, a speaker at the CwVA seminar, described it as a unique experience, when so many individuals of varied professional disciplines, from so many Commonwealth countries, had met and shared common ground. Dr. Ndzinge of Botswana accurately described the underlying reaction of delegates and participants when he remarked 'It has been a splendid week'.

Not only was it a splendid week but it was a week of seven very full days. There had been CwVA executive meetings, CwVA Pan-African council meetings, a meeting of the CwVA East/Central/Southern council and the CwVA 'Seminar for Administrators and Educators of Animal Health Assistants'. Outside of the CwVA activities there was the official opening of the new International Trypanotolerance Centre and a

seminar on trypanotolerance, organized by the ITC. The CwVA seminar was held the first two days, being followed later in the week by the ITC seminar.

The significance of the CwVA seminar was underlined by Dr. B. Touray of The Gambia in his welcoming address to those attending the seminar. Quote- "We are all aware of the value of the contribution of animal health assistants both to our profession and to the rural development efforts of our governments". - "In many of our countries animal health requirements can be more easily met through the services of well-trained animal health assistants. Thus, for many of us, the education and training of the assistant is crucially important". - "There is a great need to harmonize the curriculum so as to attain a minimum standard of qualification that will be recognized by employers and educational institutions in Commonwealth countries. This need underscores the importance of this seminar".

Among the 29 Gambian participants
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Onsite comments

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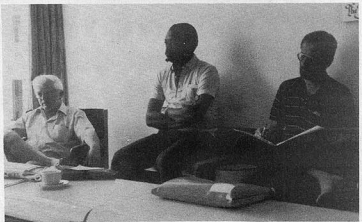
were veterinarians, training officers, animal husbandry officers, academics, nutritionists, livestock officers and conservationists. Visitors included council members from the West Africa and the East/Central & Southern Africa regions, the regional representatives of the Asia and Australasia regions, and CwVA representatives from the UK, the Caribbean and Canada, and an observer from FAO Headquarters in Rome.

Described by many as meriting a five star rating the seminar had been planned and organized by its chairman, Professor Gavin Hamilton of Saskatoon, Canada. Speakers, the majority from African member countries, included veterinarians, animal husbandry experts, academics and livestock specialists, all with extensive backgrounds in training, supervising and working with animal health assistants. New to many was the theory and practice of 'Training trainers', this was the subject of an entertaining and extremely informative presentation by Peter Robinson of the British Agricultural Training Board.

Testifying to the success of Professor Hamilton's efforts were the comments of FAO observer, Dr. L. Velloso. Quote: "The seminar was organized and conducted in such a manner that it proportioned time for contributions, representative of all CwVA countries present, during discussions. This created an opportunity to better envisage problems in the training and use of animal health assistants. More importantly, suggested solutions came forth, many of which hold much potential in assisting with these problems". Tom Aire of Nigeria described Gavin Hamilton as a patient and understanding man with a pragmatic approach and Tom spoke for all when he said "Professor Hamilton directed the seminar in a most commendable manner".

Between old and new friends, greetings, experiences, ideas and news flowed. An item of particular interest came from Dr. I. D. Odur of Uganda, when he told of the plans of veterinarians in Uganda to, with support of the World Bank, privatize veterinary practice, with a view to making practice self-supporting and spreading services over greater areas. The many times that the Commonwealth Foundation and Secretariat were mentioned made it very evident that there was a widespread awareness and appreciation of the support and encouragement stemming from them. It

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Attending one of the many meetings (left to right) Trevor Blackburn (UK), William Amanfu (Ghana) and Abdul Rahman (India).



Participants at a seminar. Overseas delegates were fascinated by such exquisite hairdos, so neatly arranged.



Question time at one of the seminars.

Hats off to CwVA Executive

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would take many lines of print to include all the comments on the success of the CwVA Executive in organizing these Pan-African Council meetings, CwVA executive meetings, the seminar, all the travel arrangements and so on and to have synchronized all with the ITC official opening and seminar. Paragraphs would be required to cover the tributes paid to CwVA Secretary-Treasurer, Jim Archibald, for as all knew it was his tireless efforts, his deep concern, his patience and his boundless energy that had 'brought it all together'.

The essence of that 'week well-spent' was eloquently summed up by Dr. Ndzingo of Botswana. Quote: "It gave us an opportunity to put our heads together for the common cause of promoting true development and progress". Tom Aire put in words the spirit of the week when he said "we felt we belonged to a large family with one objective, the development and well-being of our various peoples".

Source: CwVA News Bureau.



A large number attended this seminar, including Bill Pryor (Australia) on left, Tom Aire (Nigeria) on right, while Jabula Dube (Swaziland) considers joining them in the front row.

AUSTRALASIA

Fur-chewing

Fur-chewing is a relatively common apparent behavioral problem of farmed rabbits. Unlike the preparient doe, who pulls out fur from ventral body surfaces to line her nest, rabbits of either sex which fur-chew, bite hair off any part of the body which is accessible and may denude more than 50 percent of their body surface. The condition often appears to be self-inflicted but a rabbit may chew its own fur or that of others.

Conducting a small study, involving 37 five-week-old New Zealand rabbits, Drs. D.K. Blackmore, W.H. Schultze and G.C. Absolon concluded that "light intensity is not a major factor in the induction of fur-chewing in rabbits". Source: New Zealand Veterinary Journal: Vol.34, pp.158.

3,000 members

The Australian Veterinary Association (AVA) has more than 3,000 members. The Australian Veterinary Journal, the journal of the AVA, is published monthly and is recognized worldwide as a quality professional journal. There are four veterinary colleges in Australia. These faculties of veterinary science are located at the University of Queensland, the Universi-

ty of Sydney, Melbourne University and Murdoch University in Perth.

The wide diversity of occupations within Australia's veterinary profession is interesting. Broad classifications are: government (federal, state, local) 16.6 percent; industry (livestock, pharmaceutical) 4.5 percent; practice (small animal, mixed, large) 68.8 percent; Zoos, sanctuaries 0.5 percent; university and teaching 6.3 percent; miscellaneous 3.3 percent.

Of the veterinarians in practice the greatest number, 52 percent, were in small animal practice, while 38 percent were in mixed practice.

Source: Aus. Vet. Jour. 63 (Sept.86).

A change of lifestyle

Dr. R.W. (Bill) Gee resigned from his position of Director of the Australian Agricultural Health and Quarantine Service (AAHQs) of the Department of Primary Industry on Sept. 1/86. Dr. Gee was the first (and only) Director of the Australian Bureau of Animal Health (1974) and the first Director of AAHQs since its formation in 1965. He is a past President of the AVA (1976-77), the Australian College of Veterinary Scientists (1981-82) and the Office Internationale des Epizooties (1982-85).

He will be residing in Sydney and intends to maintain an active interest in

veterinary affairs nationally and internationally.

Source: Aus. Vet. Jour. 63

Attention deer veterinarians

A very interesting article, 'The Reindeer Industry in Canada' by Dr. Gordon F. Godkin of Innisfail, Alberta, Canada is to be found in the December '86 issue of the Canadian Veterinary Journal. Veterinarians associated with the deer farms of New Zealand should, like the staff of the CwVA News, find Dr. Godkin's article quite fascinating.

Did you know that:

The southern hemisphere of the world has relatively few nuclear power stations, but there are countries with an interest in nuclear weapons which have nuclear power stations, probably because of their ability to produce plutonium. These countries are Argentina, Brazil and South Africa. Unfortunately the South African power station, Loeberg, is situated in an area which has historically been subject to severe earthquakes.

Source: NZVA Subcommittee on Nuclear and Natural Disasters/NZ Vet. Jour. Vol.34 No.9.

Dr. Woh's dedication brings regional growth

This was a positive and progressive era in CwVA's Australasia region. There was a significant increase in CwVA activities and as a result a substantial growth in its influence in the Pacific area. A great deal of the credit for this belongs to the then regional representative, Dr. Siew Teck Woh, for it was his dedicated work that brought about this regional growth of the CwVA.

In 1972 the first meeting of the Australasia CwVA Regional Council was held in Brisbane. The second meeting in Perth in 1983. The Perth meeting coincided with the World Veterinary Congress and provided an opportunity for informal meetings with a large number of veterinarians, thus promoting a greater awareness of the CwVA. An observer from the Papua New Guinea Veterinary Association (PNGVA) attended the Perth meeting, as a direct result the PNGVA (now an active CwVA member) applied for membership in the CwVA.

In 1978 and 1980, the regional

representative attended the Australian Veterinary Association's annual conferences. There he held discussions with attending CwVA council members. Also in 1978 Dr. Woh, as CwVA regional representative, attended an AVA conference on 'livestock developments for the small Asian farmer', again he met with other attending CwVA council members. Dr. Woh also had discussions with representatives of Malaysia and Fiji. Malaysia and Fiji are now both active members of the CwVA.

During this period the CwVA, through travel grants, supported the following:

- In 1978, a representative from India and one from Fiji to attend the AVA seminar on 'livestock developments for the Asian small farmer'.
- A specialist in anatomy, from a British university, to lecture at Massey University in New Zealand. (Funded through the UK/Europe region).
- In 1980, representatives from

Malaysia, Singapore and Australia to attend an Indian Veterinary Association seminar on 'Haemprotozoan diseases' held at Haryana University.

- In 1980, three New Zealand speakers to the AVA Conference.

In 1979 the CwVA Australasia region was represented at the CwVA Asia regional meeting, held at Peradeniya, Sri Lanka, by its regional representative.

The CwVA (Australasia) Regional Council identified two broad areas where the CwVA should consider concentrating its efforts. Firstly, some countries in the region had difficulty in training sufficient numbers of indigenous students to provide a firm base of veterinary expertise. Secondly, the development of veterinary services within the region required support. The council formulated specific proposals to provide assistance to veterinary students from the region and to the development of veterinary services in the Pacific Island countries.

News from Australasian regional meeting

Eric Shortridge and David Blackmore attended an Australasian regional meeting of the Commonwealth Veterinary Association held in Kuala Lumpur, Malaysia on 21 and 22 April 1986. The meeting included:

(1) A regional meeting of the Commonwealth Veterinary Association council members from commonwealth countries in the Australasian region plus some observers.

(2) A seminar on veterinary public health open to any veterinarians or para-veterinary personnel. This was attended by 50 plus people mainly from Malaysia.

The regional meeting was the third such meeting to be held in the Australasian region since the Commonwealth Veterinary Association was established in 1968. Previous meetings have been in Brisbane (1972) and Perth (1983). A full report of this meeting will be published in the journal of the Association of Veterinary Surgeons, Malaysia.

Copies of Eric Shortridge's report to the Council of the New Zealand Veterinary Association are available on request from Glyn Patchett and this report gives details of the activities of the Commonwealth Veterinary Association since the Perth meeting, financing of the Commonwealth Veterinary Association, information

exchange within Commonwealth Veterinary Association, registers of veterinarians in Commonwealth Veterinary Association regions, development of veterinary services in the South Pacific area, the establishment of an information centre on veterinary public health in the region and continuing education.

The technical programme of the seminar on veterinary public health included country statements on the current situation in the countries in the region, developments in veterinary public health as they affect human food quality, veterinary drugs in Australia and consumer protection, development of veterinary public health program-

mes in Malaysia, planned herd health programmes in New Zealand and waste water from pig farms. Visits were made to the Veterinary Public Health laboratory, Petaling, Jaya and to the Faculty of Veterinary Medicine and Animal Science, University Pertanian Malaysia, Serdang.

The overseas delegates were also taken to Ipoh visiting a government experimental farm, a milk processing station and the veterinary diagnostic and research laboratory at Ipoh. Both Eric Shortridge and David Blackmore found this a very full, useful and enjoyable programme.

Source: New Zealand Veterinary Journal, July 86.

So you want to be a veterinarian

A study by G. Shouksmith and B. Hesketh of the Department of Psychology, Massey University, Palmerston North, New Zealand, suggests that adjustment and psychological well-being depend on total life activities being congruent with and satisfying an individual's predominant needs.

Some veterinarians, for example, seek a job with activities which satisfy all their needs, whilst others look to the

tanquy, leisure or non-job activities to satisfy many of them. The former group will have poor mental health and a low sense of well-being if their job satisfaction is not high. The latter group will look for compensatory activities elsewhere to overcome the lack of job satisfaction and still achieve a high level of mental health and well-being.

Source: New Zealand Veterinary Journal: Vol.34, Sept/86, pgs.141-144.

Report on AVA annual meeting

The 63rd Annual General Meeting of the Australian Veterinary Association (AVA) was held in Queensland at the Chevron Hotel, Surfers Paradise on May 12-16, 1986. Queensland is Australia's north-east state. It is known the world over for its famous coral reefs, which include the Great Barrier Reef. A mountain range, the Great Dividing Range, runs southeastward roughly parallel to the coast. One of its peaks, Mt. Bartle Frere, is 5,267 feet high. Surfers Paradise is in the Gold Coast region, just south of Brisbane. Queensland is a large state with an area of some 667,000 square miles. Brisbane is the capital and largest city of Queensland.

Commencing at 4:30 p.m. on May 12, AVA President Dr. D.B. Lindsay welcomed the members and guests. The conference was officially opened by His Excellency The Honourable Sir Walter Campbell, Governor of Queensland. Dr. R.D. Cameron, President of the Queensland Division of the AVA, gave a reply in appreciation of His Excellency's opening address.

AVA history

In an interesting address The Honourable Sir Walter Campbell touched upon some of the history, progress and accomplishments of the AVA. The following are quotes from His Excellency's talk:

- "The history of the AVA has followed much the same pattern as many other professional associations in this country, proceeding from various state organizations until the formation, after Federation, of that truly national body representing the veterinarians in the whole of our country."

- "The first recorded veterinary association, in Australasia, was formed in 1880. It took to itself the title of the Australian Veterinary Medical Association. It is interesting to note that in 1880 there were not more than a dozen qualified veterinarians in practice throughout Australia, whereas now the AVA has over 3,000 members. The original association soon broke up due to disputes about moneys payable for plans for a veterinary school."

- "In January 1914 a preliminary meeting was held in Melbourne to consider the steps necessary for the establishment of the Australian Veterinary Association, and this meeting was attended by represen-

tatives of the three states in which veterinary associations had already been established, namely New South Wales, Victoria and South Australia.

However, subsequent developments were interrupted by the outbreak of war in that year. It is of significance that the great majority of qualified veterinarians in Australia enlisted for service in the Australian Army Veterinary Corps and went abroad with horsed units.

With the return of the soldiers from the war, interest in the Veterinary Association revived and due to the work of certain people arousing Australia-wide interest in the formation of a national association, the first Annual General Meeting of this association was held in Melbourne on January 12, 1921. There were 80 Foundation Members accepted at that time. Since then meetings have been held each year, with the exception of 1942."

- "In 1923 a decision was made to publish a professional journal. By 1925 the Australian Veterinary Journal was being circulated to 130 AVA members plus a number of outside subscribers and advertisers. This journal is now a world-recognized publication."

- "It can be truly said that the AVA has become the mouthpiece of the profession in Australia and presents the association's view to federal and state governments and to producer bodies, and it ensures that the general public is aware of how the veterinarian can help animals whether they are kept for food and fibre, or for sport or as companions."

- "It is a happy coincidence that the Faculty of Veterinary Science was established at the University of Queensland in 1936 and this year it is celebrating its golden jubilee. Seven students enrolled in 1936 and I understand that some of those students are with us today at this conference. The school was closed in 1942 as staff and students enlisted for war duty, but it reopened in 1946. The University of Queensland has through the years produced 1,729 veterinary graduates."

Dr. D.B. Lindsay's presidential address was directed to the changes and recent developments in the professional activities of Australia's veterinarians. Dr. Lindsay noted, with a certain amount of alarm, the numbers of qualified veterinarians leaving practice for other fields of employment. He strongly suggested that these talents would eventually be missed in animal health and national livestock produc-

tion. Attention was drawn to the progress of consultancy practices and the need for farmers to recognize that veterinarians should be the persons to whom they should turn for advice on problems in husbandry, feeding, housing and nutrition. The audience was reminded of an observation of Dr. Bill Pryor's 'that veterinarians must become established as part of the agricultural services team'.

President's remarks

The following are direct quotes from Dr. Lindsay's address:

- "Vets have the advantage of a broad knowledge of agriculture, and by their training should be able to coordinate the utilization of technical people with deeper knowledge of more narrow subjects."

- "Another step forward has been that of ever increasing the political activity and public profile of the profession through the association. It is in this area that all members of the profession, whether in the private or public sector, must receive benefit. Certainly our political activity, and I define that to mean dialogue with any group, not just politicians, per se, concerns public sector veterinarians as much as it does practitioners."

- "We are an advantaged group because we have been educated in more than one area of animal health and welfare. Because of this, we have a duty to the community to ensure that our knowledge and our considered opinions are widely disseminated, so that public debate can be informed. We must avoid any situation in which public opinion is formed within our area of expertise without having had the benefit of our contribution."

- "The veterinary profession must assert its responsibility to ensure that facts are placed before the policy makers before the policy is determined. That is our political aim and that is the purpose behind the AVA's increasingly active role in the community."

On May 16 Dr. D.B. Lindsay inducted Dr. T.P. Collins as the new president of the AVA for 1986/87. Dr. Collins introduced the new president-elect, Dr. R.E.V. Duigan and the new honorary treasurer, Dr. R.M. Kibble. Dr. Lindsay paid tribute to retiring treasurer, Dr. L.J. Fulton, and a vote of thanks for

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Dr. Wilson receives award at NZV Conference

The 1986 Annual New Zealand Conference was held in Auckland May 19-24. Industry, small animal, public health and equine seminars were held in conjunction with the conference proper. Over 30 firms allied to the veterinary profession were represented.

Greetings from Chris Piper, president of the Auckland Veterinary Society, marked the beginning of the official opening ceremonies. Then in a fine speech which riveted the audience's attention Dame Catherine Tizard, Mayor of the City of Auckland, extended a gracious welcome to everyone. The speaker who officially opened the conference was Michal McKay, editor of the New Zealand Women's Weekly. She had many pleasant and constructive comments to make about the profession.

The highlight of the evening was Dr. Peter Trim's 1986 Presidential Address. After his talk Dr. Trim presented the President's Award to Dr. Peter Wilson. This final event of the opening ceremony was followed by the president's reception.

President's remarks

The presidential address delivered to this 62nd Annual New Zealand Conference by Peter Trim was a fascinating inward glance at what should always be the lifeblood and spirit of our profession, 'service'. The following are quotes from Dr. Trim's talk:

- "I hear people frequently say 'veterinary practice is a business'. Now in my book business frequently conflicts with service and yet our business is service."
- "I do not disagree that veterinary practice is a business, but I propose that it is a business through service."
- "If the predominant ethic of veterinarians is service then (a) scientific principles must be more important than commercial gain, (b) twenty-four hour availability more important than business principle, (c) professional ethics more important than market share."
- "It is our responsibility to be available, to give good advice and to offer the best techniques."
- "A professional may not be thanked, may even lose a client through giving sound advice. One of the arts of service is to be able to survive, when sticking to principles that cause displeasure."

- "As servants to the community, we veterinarians have a responsibility to advise the policy makers and public on all matters concerning animal health, performance and welfare. Our views may not always be popular. We should not be perturbed if we gain the support of few, so long as we believe our standpoint is morally and scientifically defensible."

- "Divergence is a strength and a safeguard so long as dissent is not silenced and so long as the minority does not act to undermine the majority except through debate."

- "Professional service is hard. I believe, business is much easier."

- "The danger of a conservative profession such as ours is allowing our clients to get ahead of us. So often in the past this has been so with the consequence that someone else has stepped in."

- "If change is introduced as an enhancement to traditional practice it will prosper."

- "We must not give away, threaten or restrict our traditional practice base. We must take advantage, for the benefit of animal, client and veterinarian alike, of an efficient and effective veterinary network."

- "Fortunately or unfortunately it is animals which we ultimately serve. It was for them that we all, or nearly all, entered the profession."

As notable examples of 'service' Dr. Trim spoke of the work of individual veterinarians and of teams of veterinarians that brought New Zealand's Agricultural Quarantine Service, Meat Inspection Services and Brucellosis Control Scheme to the state of excellence they now enjoy.

For thoughts for many a day after tomorrow we again quote Peter Trim. "Close client professional relationships were made, if not in heaven, then in some place like it." "How can we be the masters of our destiny when our future is tied so closely to the fortune of others?"

The 1986 President's Award was presented to Dr. Peter R. Wilson in recognition of his service to the veterinary profession. During his career, Dr. Wilson has combined both practice and research in investigating a wide range of deer conditions and has published widely. He has been president of the Deer Branch since its inception and has been prominent on the NZVA Deer Advisory Panel for some time. Peter Wilson's long term interest in the field of deer medicine and production led to the establishment of an expanding deer unit at Massey University. From here the work of Peter and others has led to effective solutions to problems of a rapidly growing industry.

In all respects Dr. Peter Wilson is a worthy recipient of this award.

Australian awards presented at 63rd meeting

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his past efforts was carried by acclamation.

In recognition of their accomplishments, their efforts and their service, both to their profession and to their communities, several illustrious veterinarians of Australia were honoured by the Australian Veterinary Association.

- The 1986 Kesteven Medal was awarded to Dr. Donald Norman Sutherland and the 1986 Gilruth Prize was awarded to Dr. Reginald Roland Roessler Pascoe.

- The Fellowship of The Australian Veterinary Association was bestowed on Dr. Helen Margaret Jones.

- Meritorious Service Awards for outstanding service to the Australian Veterinary Association were presented to Drs. John Morrison Armstrong, Peter Donald Carter, Farran Frederick

Dixon, Russell Edward Vaughan Duigan, Mervyn Gerard Foote, Donald Ross Kerr, Kevin Peter McManus, Richard Wingfield Murray, Loma Elaine Nash, Ronald Walter Newlands, Anthony John Paterson, John Edward Peterson, Kay Smits and Clifford Albert Hall.

Source: Australian Veterinary Journal 63 (Sept. 86)

Something new for New Zealand

The first confirmed case, in New Zealand, of botulism in a dog was reported in a clinical communication by Drs. V. Wallace and D.M. McDowell of the Glenview Veterinary Clinic, Hamilton, New Zealand.

Source: New Zealand Veterinary Journal: Vol. 34 Sept/86 pg. 149.

News from The Fiji Veterinary Association

Historical Background

The idea to form a Veterinary Association was mooted some years before Fiji gained independence from Britain in 1970. The four or five vets at the time were all employed in the government service and while two were on the permanent staff the others were on contract and therefore only transient. The idea failed to eventuate.

In 1973, with two local vets now having qualified and working plus the usual cadre of contract officers the idea again was floated. Only this time due to the few numbers it was suggested to include a number of Commonwealth island nations in the region to form a South Pacific Veterinary Association. Other island nations faced similar problems of numbers of permanent staff. Unfortunately the CwVA preferred countries of the region to be represented individually on the CwVA rather than through a composite body. It also did not favour the formation of a "cosmopolitan" association which would include non-Commonwealth countries eg. New Caledonia, Gilbert Islands (now Kiribati), American Samoa and New Hebrides (now Vanuatu).

After a number of starts and stops the Fiji Veterinary Association (FVA) was finally formed in 1986 and joined the CwVA in the same year.

Association Activities

Membership of the FVA currently stands at 10. Nine work in the government service and one is in private practice. The number can be further split up into six locals and four overseas vets on contracts or special projects. Very little has happened since the formation of the association purely because the association did not get officially registered until quite a long time later due to faults in our constitution. Consequently nothing could be arranged publicly until this was sorted out.

However, informal meetings do occur quite regularly particularly during "veterinary lunches" arranged every second Friday. These lunch sessions are particularly useful in that vet problems each member may have encountered are discussed. Also these are opportune times for most of us to have a group of five or six vets together at one time and can be consulted.

The association will be contacting the Australian Veterinary Association (AVA) and the New Zealand Veterinary Association (NZVA), the two neighbouring associations, to invite

any of their members passing through Fiji or holidaying in Fiji to contact us. We will perhaps arrange a social function and ask the visitor to speak on a specific subject of interest.

1987-88 Office Bearers

President Dr. N. Tabunakawai, Secretary/Treasurer Dr. J. Vakabua, Committee Members Dr. S. Walkden-Brown and Dr. D. Banks.

A newsletter is published when adequate materials become available but as frequently as possible.

Veterinary Profession in Fiji

During the colonial days and immediately post independence (ie. post 1970) veterinary service in Fiji was run entirely by the government. Both large and small animals were catered for by only a few vets and supported by a good number of field livestock assistants.

Emphasis was placed on farm animals and a great part of extension effort was spent on stock inspection work covering castrations, licensing of bulls and stallions and culling undesirable animals. Any animals suffering from clinical diseases were treated during these stock inspection visits.

The major diseases encountered then were bovine TB and Brucellosis and efforts to control and eventually eradicate these diseases intensified during the last four to five years.

In the last 15 years veterinary service has been aimed primarily at increasing animal production. Animal health is not considered a big constraint to production. However, increased intensification of goat farming in the last 10 years has been responsible for widespread Helminthiasis in this species.

A vet employed as a Veterinary Officer (VO) in a geographical division in the government service will have a number of sub-professional livestock assistants under him. The VO will provide technical direction and administration and also teaching for both staff and farmers. Livestock assistants are required to treat clinical cases and dispense drugs but under supervision of the VO. The VO will be directly involved also in any disease control work in his division.

With disease control and eradication the government embarked in 1983 on an eradication programme for Bovine Brucellosis and TB, the two most serious cattle diseases in the country

particularly due to their zoonotic importance. The incidence of the two diseases has been brought down to 0.3 percent and 0.9 percent respectively in the Central Division of Fiji where the majority of dairy and beef farms are located. Eradication work has spread to the Western Division and work will start in the Northern Division in 1988. The programme has been possible through Australian aid funding and their assistance is greatly acknowledged. Apart from these and a few minor viral diseases of poultry Fiji is relatively free of the major livestock diseases.

The only private practice operates in Suva, the capital city with a population of about 70,000. The practice is run by the Society of Prevention of Cruelty to Animals (SPCA) which employs their own vet. Government vets help out during locums on some weekends when the vet is not available and sometimes with emergency cases during the week. The scope of more private practice is rather limited if the government is allowed to operate a highly subsidised service. Additionally the present number of vets will preclude this option because of the number of practices needed to be set up to accommodate everybody's need. This is due to the fragmented nature and isolation of livestock development around the country.

Contributed by: Dr. N. Tabunakawai, Pres. Fiji Vet. Assoc.

Late news from Kenya

A very successful annual scientific conference was held during April 1987 by the Kenya Veterinary Association (KVA). The theme of the conference was "Research Priorities for Increased Productivity". During the associated KVA annual general meeting, a new executive committee was elected.

Members of the new executive are: Dr. Cyrus G. Ndiritu, chairman; Dr. D.E. Mbojo, senior vice-chairman; Dr. H.S.N. Kinyiwa, junior vice-chairman; Dr. Colin F. D'Souza, secretary and Dr. S. Varma, treasurer.

Future plans included a programme of continuing education. The first such course, one on poultry diseases, was tentatively scheduled for June 1987.

The address of the Kenya Veterinary Association is P.O. Box, 29089, Kabeto, Kenya.

Source: Communication from Dr. C.F. D'Souza, Sec. KVA.

Source: CTVM's Newsletter No. 43 (1986). Courtesy of Centre for Tropical Veterinary Medicine, Easter Bush, Scotland.

- Courses in 'Agricultural Extension in the Tropics' were organized by TROPAG in 1986. The curriculum covered the principal components concerned with extension practice including: identifying the needs of farmers, identifying techniques appropriate for particular situations, the management of available extension resources and the evaluation of results of extension programmes. The philosophy behind the course was one of encouraging student participation and developing their confidence. Success was such that courses were organized for 1987 and no doubt there will be more in the future. Interested parties can contact: TROPAG Consultants, 16 Buccleuch Place, Edinburgh, EH8 9LN, Scotland.

- Evidence suggests that the primary site of multiplication of *Cowdria ruminantium*, the causative agent of heartwater, is located in the regional lymph nodes and that in rickettsiaemia the organism is located in the cytoplasm of circulating neutrophils. (page 2)

- An understanding of the physiological consequences of work on animals should help in establishing methods of identifying good draught animals, as well as identifying effects of nutrition and management on the work done during a day. Crossbred cattle worked on treadmills for two half-hour periods, which were each followed by a rest period of 15 minutes. Blood samples were taken repeatedly from each animal for analysis before, during and after each period of work. Energy expenditure and heart rate were also recorded. The results will identify the more immediate short term changes associated with work or energy expenditure in cattle. (Physiological Studies of Draught Animals - page 11)

- The energy draught animals use for walking has been measured by many investigators and there is general agreement that such animals use about two Joules per kg bodyweight per metre travelled. This means that of the extra energy used for work by such animals, up to 95 percent is used just for walking during light work such as pulling a cart, and even in the case of heavy work such as ploughing, the proportion can be 40 to 50 percent.

The value of two J/kg liveweight/m was derived from animals walking on

firm, smooth surfaces (eg. on a treadmill) but it seems reasonable to suppose that this value would be much higher for animals working in fields where the surface is very often muddy, broken or loose. Furthermore previous studies have shown that animals working in the field tend to use similar amounts of energy per day regardless of the task they are performing.

There was a decrease in walking speed of about 20 percent when walking in mud, both whilst pulling a load and walking unloaded. By far the largest and most significant difference observed was that for the energy cost of walking which was 90 percent higher on average when the animals walked in mud. Contrary to popular belief, the water buffaloes did not manage better in mud than the other animals. (The Performance of Draught Animals Under Muddy Conditions - pages 11 and 12) Please note two buffaloes, two Brahman cattle and two Brahman x Friesian were used in this study.

- Promising vaccination trials - calves vaccinated with either a complete homogenate of *Taenia saginata* oncospheres or with a defined antigen component of this homogenate had a significant reduction in their cyst burdens compared to sham vaccinated controls. (Cestode Zoonoses - page 12)

- Parasitic gastro-enteritis of small ruminants - K. Ndamukong and Dr. M.M.H. Sewell

The second year's epidemiological studies have been completed and the results are being evaluated. A preliminary assessment to the end of August 1986 suggests that the Two-dose Regime is as effective as the Four-dose Regime (i.e. last year's Reduced Regime) and that levamisole is proving to be a more effective anthelmintic at Mankon than the benzimidazoles. As in the previous year, the sheep under Mankon management have grown and survived better than the goats, whereas under village management the goats survived much better than the sheep. The small-scale attempt to replicate village management at Mankon has succeeded in that the goats survived better than the sheep, although, in contrast to the goats tendency to gain weight in the villages, both sheep and goats lost weight throughout the year in the Mankon replicate.

In the study in which goats and sheep were grazed together, so being potentially exposed to the same challenge, the goats tended to have lower faecal strongyle-type egg counts than the sheep except for a short period in the early rains. In contrast to the other

groups under Mankon management, the surviving goats also grew better than the sheep grazing alongside them, although four of the 10 goats died during the first half of the rains compared with only one of the sheep.

The experimental studies comparing the infectivity of goat-derived and sheep-derived strains of *Haemonchus contortus* for these two hosts are continuing, as are the studies on haemoglobin types in indigenous sheep and goats.

- Chronic eperythrozoonosis - Dr. G.R. Scott and Mrs. E. Paxton

The persistent parasitaemia in the ewe that gave birth to an infected lamb on the 456th day of parasitaemia (see last Newsletter) abated in the 499th day after the onset of *E. ovis* parasitaemia. Betamethaxone administered intravenously at the rate of 1mg/kg body weight daily for four days failed to reactivate the parasitaemia.

- Butting orf - Dr. G.R. Scott, Mrs. E. Paxton, D.E. Currie and D. Penman

In October 1984 a keratinised 'growth' on the crown of the head of a Hamish Cheviot ram No. 654 was shown to contain orf virus by electron microscopy. One and year and two years later samples from the same site still contained orf virus.

- Concurrent orf and papillomatosis - Dr.G.R. Scott, Mrs. E. Paxton and D. Penman. Warts on the faces of two Blackface yearlings were examined for viruses by electron microscopy.

Papilloma viruses were detected in samples from both sheep but in addition one sample from one of the sheep contained both papilloma virus and orf virus. Three orf-free lambs were therefore closely housed in the same stall as the yearlings; none developed papillomatosis or orf.

- Streptothricosis research project - Dr. A.N. Morrow and I.D. Heron

Work was carried out on the Caribbean Islands of Antigua and Guadeloupe over a three month period during the summer of 1986.

In Antigua data was collected on the occurrence of streptothricosis and *Amblyomma variegatum* ticks on cattle kept under different management systems. The distribution of lesions on affected animals was noted. The incidence and distribution of skin lesions on animals entering the abattoir at St. Johns over a seven week period was also recorded and the number of *A. variegatum* ticks on 36 percent of the

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Forward Planning

Following a discussion held at the Pan African Council meeting in The Gambia, March 1987, the following Forward Plan was drawn up for discussion: -

A. MATTERS AFFECTING THE VETERINARY PROFESSION

POLICY - to promote within the Commonwealth the interests of the veterinary and allied sciences.

1. Promote national associations
2. Help to set up veterinary legislation where it does not exist
3. Consider education - at all levels, professional, sub-professional and farmer training
4. Ethics - prepare a specimen code of conduct
5. Promote professional meetings - improve contact between colleagues
6. Promote interchange with other professions
7. Funding - how can this be improved

WHO, WHEN, WHERE - suggested action plan

(Using item numbers above)

	<u>TARGET DATE</u>	<u>ACTION</u>
1. a) REQUIRE BASIC DATA FOR ALL ASSOCIATIONS (i) National Association Status (ii) Total membership	JUNE '87	ALL COUNCIL REPS (Information to Secretary)
b) Aim at 100% Commonwealth membership	JUNE '88	ALL
c) Consider corporate symbol for general consideration	MAY '88	EXECUTIVE
2. All countries to supply brief outline of veterinary legislation, existing, pending or non-existent.	JUNE '87	COUNCIL MEMBERS
3. a) Set up Directory of Commonwealth Veterinary schools. Supply one page on each veterinary school to Vice-President. Date founded, length of course - number per year, number qualified, number of staff, etc.	DEC. '87	ALL COUNCIL AND VICE-PRESIDENT
b) Set up Directory of Animal Health Assistant Schools (as in (a) above)	AS ABOVE	AS ABOVE
c) Report on Animal Health Assistants Seminar - The Gambia	JUNE '87	DEAN G. HAMILTON
d) Organize Animal Health Assistants Seminar for Asia & Australasia Regions	MAY '88	W. PRYOR (AUST)
e) Farmers Training Centres - Supply whatever details available	JUNE '87	COUNCIL MEMBERS
f) Set up Commonwealth accreditation system for veterinary schools	1995	EXECUTIVE
g) Continuing Education	ON GOING	ALL
4. a) National Associations to provide details of any Codes of Practice in existence	DEC'87	COUNCIL MEMBERS

Forward Planning

	b) Draw up Commonwealth Code of Practice	JUNE '88	EXECUTIVE
5.	a) Gather information on travel grants for members and undergraduates	MAY '87	VICE-PRESIDENT
	b) Arrange meeting in Montreal for CwVA members attending WVA Congress	JUNE '87	VICE-PRESIDENT
	c) Arrange meeting of Commonwealth members at all veterinary conferences	ON GOING	ALL
	d) Pan Commonwealth Conference	1989?	EXECUTIVE
	e) Twinning Pilot Project	DEC '87	BVA
6.	a) List of Commonwealth Professional Associations to all Council Members	JUNE '87	SECRETARY
	b) Arrange formal representation at WVA Congress, August 1987	AUG. '87	PRESIDENT
	c) Seek observer status - Commonwealth Foundation, FAO, Commonwealth CVO Conf. etc.	AUG. '87	PRESIDENT VICE-PRESIDENT
7.	Funding - Regional Representatives to seek funds from Region	ON GOING	EXECUTIVE AND COUNCIL

Several items were identified in the other major areas of interest; time did not allow detailed planning. Please add or subtract to or from the list and suggest an action plan.

B. ANIMAL PRODUCTION

- i) Health Programmes - improvement of health
- all animals, including fish
- ii) Animal Welfare
- iii) Improved production - "nest with eggs"
- iv) Traditional medicine
- v) Conservation
- vi) Utilization of various species

C. ANIMAL INDUSTRY

- 1) Trade barriers
- ii) Public Health, Quality Control
- iii) Preparation of products - meat plants etc. (e.g. FAO have produced a plan for village slaughterhouses - including training of butchers. Is this something the CwVA could have been involved in?)

D. SOCIO-ECONOMIC FACTORS

- i) What is the profession's responsibility to mankind?
- ii) Improving the quality of life - How?

J. TREVOR BLACKBURN
APRIL 1987

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animals counted. Skin biopsies collected from a number of animals are at present being processed for routine histopathology and electron microscopy.

Intradermal skin tests were carried out on groups of normal and affected animals using an extract of *Dermatophilus congolensis* isolated in the UK which gave positive results when used on animals experimentally infected with isolates obtained from Africa. Further studies will be carried out on the skin response of groups of animals experimentally infected with isolates of *D. congolensis* collected in the Caribbean using the same antigenic extracts.

Over 35 percent of cattle examined belonging to landless farmers had skin lesions with 2.4 percent having extensive and severe lesions. There was a higher incidence of streptothricosis on animals with *A. variegatum* ticks. However, the severity of lesions could not be related to the presence or number of *A. variegatum* on affected animals. Lesions on affected animals were not confined to predilection sites of *A. variegatum* and in many cases would appear to have started on the dorsal surface. Further analysis of the data will be carried out.

- *T. evansi* infection of cattle, horses and buffalo in Indonesia - R.C. Payne

Sumatra was undertaken from 14th to 19th September to investigate the prevalence of haemoparasite infection in livestock. Blood samples were collected from imported (New Zealand Sahiwal) cattle, local cattle and horses. *T. evansi* infection was confirmed parasitologically in one bovine by the microhaematocrit centrifugation method and thin smear examination revealed the presence of *Theileria orientalis* infection in 52 animals and *Babesia bigemina* in four. Results from ELISA testing of serum samples from these animals revealed that 42 percent of the animals had antibodies to *T. evansi* with a higher prevalence in local animals than in the imported animals. Only one of the serum samples collected from the horses was positive for *T. evansi* antibodies by ELISA.

A number of follow up visits have been made to several locations in Java where buffalo imported under the Banpres scheme had been distributed to small farms earlier this year. Results from animals in the Bantul and Slemen areas indicate that seroconversion of Banpres buffalo is progressing only slowly despite the high seroprevalence of *T. evansi* in local buffalo. In the Garut area, however, clinical trypanosomiasis has been reported in a number of imported animals and seven have died of *T. evansi* infection. A high proportion of the local buffalo were shown to have antibodies to *T. evansi* although few had detectable parasites

in their blood. In the case of imported buffalo, however, most of the serologically positive animals also displayed a patent parasitaemia.

Experimental studies on the course of *T. evansi* infection in horses have been undertaken in order to provide baseline data on the response of horses to *T. evansi* infection and to provide standardised reagents for studies on material from natural infections.

- Bovine babesiosis: preparation of antigens T.W. Fison, Miss H. Brocklesby, Dr. T.W. Jones, C.G.D. Brown and Miss L.J. Bell

In order to complete a survey of tick-borne diseases in the coastal region of Southern Tanzania (TWF) and to enable a similar survey to be conducted in the Southern Region of Malawi by the R (D) SVS Malawi Expedition (HB), antigens of *Babesia bovis* (Kwanyanga), *B. bigemina* (Nigeria) and *B. divergens* (N. Ireland) were prepared for the IFAT. Splenectomised calves were infected in the isolation unit with these organisms which were bled at peak parasitaemias for the production of antigen. The *B. bovis* was maintained in culture for two months through 26 subcultures and used to provide further antigen for IFAT and ELISA. Neither *B. bigemina* nor *B. divergens* multiplied in vitro at 37 degrees C when grown in M199/40 percent bovine serum as 5 percent or 10 percent erythrocyte suspensions in an atmosphere of 5 percent CO₂ in air.

Clinical note from Swaziland

An adult male alsatian dog attracted many ticks while roaming the bushes around the Nazarene Mission at Siteki. On the dog ticks of the genus *Amblyomma* were found infesting the scrotum, the perineal region, mid-sacral region just cranial to the base of the tail, two spots one on either side of the neck in the area of the fifth to sixth cervical vertebrae, and two spots one on either oral labia. Wounds on the scrotum were considered to be associated with tick bites.

A total of 153 ticks, all of the genus *Amblyomma*, were collected. One hundred and thirteen were male ticks, of the 40 females ticks four were engorged.

At least five species of *amblyomma* ticks have been reported in Africa. *Amblyomma hebraeum* has been reported to be most common in South and Central Africa while *Amblyomma variegatum* is widely spread in Africa. *Amblyomma pumposum* and *A. gemma* are also common in South and East Africa respectively. All have been

found to feed on all domestic and many wild animals. They all can transmit *Rickettsia ruminantium*, the causal agent of heartwater. *Amblyomma hebraeum* also transmits *Rickettsia conorii* of tick-bite fever.

Although all can feed on all domestic mammals it is not common to find them

on dogs. They are mostly found among cattle. The ticks most commonly associated with dogs are *Rhipicephalus laevis* and *Haemaphysalis leachi*.

Source: SVA Newsletter Mar./87. Extracted from 'Amblyomma Tick Infestation in a Dog' by M.N. Shandama and B. Mburaburirwe.

Comments from Swaziland on mastitis and treatment

Recently in the laboratory we have had a lot of mastitis milk for testing where the causative organism is totally resistant to the antibiotics we use to test for sensitivity. One immediately asks which dairies? We feel this point is irrelevant. What is of great concern however is the fact that indiscriminate and uncontrolled use of antibiotics is the reason for this situation.

Take a look at the composition of most intramammary preparations, the term 'shotgun therapy' is written all

over it. These preparations used indiscriminately will cause big resistance problems in the future.

This then brings us once again the full circle to legislation controlling drug sales and before that to the 'veterinary surgeons acts'. Let us try once more this year to get this organized and finalized before people start to suffer from incurable bacterial diseases.

Source: SVA Newsletter Mar.'87. Extract from editorial

News from Nigeria

Veterinary Council of Nigeria Elections

The Veterinary Council of Nigeria (VCN) was established by the Federal Government of Nigeria by a decree, "Veterinary Surgeons Decree, No. 37 of 1969". The VCN regulates veterinary practice and conduct in Nigeria, and only veterinarians registered with and by this Council may practice in Nigeria. An amendment to the decree, recently signed into law by the President of Nigeria, increased the number of elected veterinarians to eight out of 34 members of the Council. Other members of the Council are nominees of the Federal Government, Deans of Veterinary Faculties and Chief Veterinary Officers.

The following veterinarians were elected into the Council this year for a four-year term:

Professor I.A. Abdulkadir
 Profesor T.A. Aire
 Professor C.O. Njoku
 Professor N.C. Chineme
 Professor G.O. Esuruoso
 Professor O.O. Oduye
 Dr. T.O. Coker
 Dr. J.N. Bincan

Appointment of veterinarians to various high level posts in the public service of Nigeria

Even though the veterinary profession is relatively young in Nigeria, several veterinarians have been called to, and were able to participate actively at high levels in national service over the years. The number of veterinarians in this role is progressively increasing. The following members of the Nigerian Veterinary Medical Association (NVMA) are performing creditably in their new responsibilities:

Dr. C.I. Alile, former Commissioner for Trade and Industry, Bendel State is now Personal Assistant to the Minister of Transport and Aviation

Professor I.A. Abdulkadir as the Executive Secretary, National Universities Commission

Professor C.N. Chineme as Deputy Vice-Chancellor, University of Nigeria, Nsukka

Professor A.A. Ilemolade as Deputy Vice-Chancellor, Federal University of Technology, Akure

Dr. (Mrs.) Elizabeth Gadzama as Commissioner for Health, Borno State Executive Council

Dr. (Mrs.) Lami Lombin as Commissioner in the Benue State Executive Council

Dr. Olufemi Oyinsan as Commissioner for Agriculture in the Ondo State Executive Council

The 25th Annual Conference of the Nigerian Veterinary Medical Association

This will be held in Lagos, the national capital later this

year. Invitation to the Conference would be extended to some national associations within Africa, as has been done several times in the past.

The Tropical Veterinarian

This is an international journal sponsored by the Faculty of Veterinary Medicine, University of Ibadan. Its Editorial Advisory Board is international in outlook, and manuscripts have been received from all over the world.

The journal is devoted to all aspects of health and disease of animals in the tropics. The maiden issue of the journal was released in 1982.

All enquiries and manuscripts should be addressed to:
 The Editor-in-Chief,
 Tropical Veterinarian,
 Department of Veterinary Pathology,
 University of Ibadan,
 Ibadan, Nigeria.

The Zariya Veterinarian

This journal is published by the Faculty of Veterinary Medicine, Ahmadu Bello University, Zaria, Nigeria.

The maiden issue of the journal appeared in 1986. All enquiries and manuscripts should be addressed to:

The Editor,
 Zariya Veterinarian,
 Ahmadu Bello University,
 Zaria, Nigeria.

Cattle production in the warm, humid, tropical zones of Southern Nigeria

Veterinarians in the southern parts of Nigeria have begun to evaluate cattle production in the entire country, with special reference to the warm, humid tropical forest zones of Southern Nigeria. It is generally believed that this area can see enhanced cattle production activities involving not only the so-called trypano-tolerant breeds of cattle such as the N'Dama, Keteku and Murutu but also of the zebu breeds of animal.

Professor Desmond H. Hill had shown that under a moderate challenge of the tse-tse fly but at a high level of nutrition and veterinary intervention, zebu animals (predominantly White Fulani or Bunaji) performed very well for over a decade at the University of Ibadan farm.

Dr. K.B. David-West, Director of the Federal Livestock Department, recently stated that "Government efforts have gone a long way in breaking the long-standing apprehension and myth hitherto held that zebu breeds of cattle cannot thrive in Southern Nigeria. Results of their performances...indicate that with appreciable control of the environment, productivity in the humid zone can match or even exceed what obtains in other zones. It is therefore not surprising these days to find even large Fulani settlements not only in Oyo, Ondo and Anambra but in more so 'herly states such as Rivers and Cross River. Large densities of cattle along our roads are common sights. The strategy to maintain these herds is to provide grazing corridors and communal grazing areas with adequate watering points.

General news from Nigerian Veterinary MA

The Nigerian Veterinary Medical Association (NVMA) Oyo State Chapter held a one-day (17th October, 1986) symposium on "Cattle Production Potentials in Southern Nigeria" at the Conference Centre, University of Ibadan. The symposium was very well attended and its theme was thoroughly discussed. The veterinarians in the southern parts of Nigeria, and, indeed, similar ecological zones of West Africa are now discarding the age-old and, obviously erroneous belief that cattle can not be produced in this zone because of the prevalence of trypanosomiasis. It was generally agreed that with proper management and nutrition cattle production can be fruitfully sustained. The N.V.M.A. is challenging its members, governments and their agencies and the private sector of the economy to explore and exploit the potentials of the southern zones of West Africa for cattle production.

The Lagos State Branch of the N.V.M.A. also held its 7th Annual Conference on 25th September, 1986, at the

Sheraton Hotel, Ikeja, Lagos. The theme of the conference was "Drug Control and Animal Production".

The Lagos State government indicated, in the address of the Commissioner for Agriculture and Cooperatives, that a multiplication and fattening program for rabbits is under way. Weaners will be distributed to farmers. A small ruminant (sheep and goat) pilot project will begin in 1987. The government expressed concern over the lack of control in the general administration of drugs in the state. The Association tackled this problem and is determined to look into it and find ways of discouraging quacks, and medication by farmers themselves.

The XXIIIrd N.V.M.A. annual conference was held from 17th to 21st November 1986 in Jos, Plateau State. Delegates came from all over Nigeria.

The Veterinary Council of Nigeria elections are due very soon. The Veterinary Council of Nigeria was established by the Veterinary Surgeons

Decree No. 37 of 1969. It regulates veterinary practice in Nigeria. Only veterinarians registered with this Council may practice in Nigeria. The decree stipulates that four members of the Council shall be elected by registered veterinarians in Nigeria. An amendment to the decree, which is under consideration by the Federal Government, may increase the number of elected veterinarians to eight. The Federal Government nominates the other members to the Council.

Several veterinarians in Nigeria have held important national and state political offices in the last few years. This number has increased under the present military administration. Dr. (Mrs.) Elizabeth Gadzama is the Commissioner for Health in the Borno State Executive Council; Dr. (Mrs.) Lami Lombin is also a commissioner in the Benue State and Dr. Olufemi Oyinsan has recently been appointed the Commissioner for Agriculture in Ondo State.

Source: Tom Aire, Council Member for Nigeria.

Did you know that:

Homeopathic medicine originated in the 1700s. A German doctor, Samuel Hahnemann, discovered that the potency of curative substances from such natural sources as animals, plants, and shells could be increased by diluting the mother substance with rectified alcohol and then by shaking the mixture, breaking the active ingredients into even smaller particles and thus activating its energy.

Source: CUSO Forum Jan/87 author - Janet Durno.

At the start of a nuclear war, a great number of helpless animals and plants would die due to fires of tremendous territories amounting to millions of square kilometers. The wounded, burnt and irradiated animals would share unbearable conditions with human beings all deprived of effective medical aid, water and food. Massscale diseases would occur and huge disturbances of natural balances in ecological systems would take place. Due to nuclear "winter" and huge losses of arable land and animals, nuclear war would have a drastic effect on food supplies for a long period of time and result in hunger even in countries not taking part in it. Such a calamity would threaten the existence

of human civilization. We reject false statements about the possibility to wage so-called "limited" nuclear war and to win.

Source: International Veterinary Academy on Disaster Medicine.

In West Bengal, one of the poorest states of India, more than 52 percent of the population live below the poverty line.

Source: CUSO Forum Jan/87 author - Janet Durno.

Review of West Africa region

Since the 1977 council meeting in Banjul, The Gambia, two council meetings have been held. Both were in Freetown, Sierra Leone, in 1979 and in May 1985. At the 1985 meeting Dr. Bakary Touray of The Gambia was elected to succeed Professor John Kamara of Sierra Leone as regional representative for West Africa.

Dr. Touray and his council face the same problems as did the previous council however an air of optimism about future days is evolving. There has been an increase in intraregional correspondence, in contact with the CwVA executive offices and some regional news has been sent to the CwVA News Bureau. Plans for a 1986 council meeting were cancelled so that it could become an integral part of the

CwVA Pan-African council meetings in The Gambia in March 1987. The region is receiving Agriculture Canada's magazine 'Communication' and the CwVA News. Increasing use of the CwVA's 'Books and Journals' programme is planned. Financial support from sources, outside of the CwVA, allowed the regional representative to attend the 1985 and 1986 BVA congresses.

The countries of the West Africa are still snared in tough economic times, making it impossible for them to match the efforts and contributions of developed CwVA members. Nevertheless, Dr. Touray and the CwVA West Africa Council are determined to play an active and creative role in the CwVA's cooperative development activities and plans.

Human leptospirosis - here and now

The epidemiology of leptospirosis in Victoria has again been studied recently in a serological prevalence survey with results that expand and reinforce previous knowledge and raise new issues.

Skilbeck and Miller (1986) report serological evidence of widespread infection in selected occupations (farmers), predominantly in men, which is related to the duration of milking sessions in herring-bone dairies by dairy farmers, but not to the age of the farmer nor to the vaccination status of the cows.

The population sampled was a group of 1074 volunteers among those who attended the 1983 Gippsland Field Days. The volunteers were necessarily biased because they were more interested in the disease than the general population would be. Nevertheless, they comprise the same population from which most diagnostic specimens are received. Antibodies to *Leptospira interrogans* serovar hardjo were detected at a titre

equal to or greater than 1:50 in almost one sixth of one group of 504 persons whose sera were tested against 16 serogroups. Almost one third of those who had experienced a leptospirosis-like illness, even more than three years before, had leptospiral antibodies, compared with 6.5 percent in a control group.

Publication of the report of the survey was the occasion for a leading article on leptospirosis in the same issue of the Medical Journal of Australia by Faine (1986). As a zoonosis, comments Professor Faine, leptospirosis falls into the chasm between animal and human health administrations. So long as proponents of vaccine control in animals contend that this procedure will control the disease in humans, there will be no incentive or reason for human public health authorities to contribute energy, money or encouragement for any other approach. In Skilbeck and Miller's sam-

ple, only 9 of 262 farmers who vaccinated their cattle used the full recommended immunization dose schedule of two doses, and 62 percent used an incomplete schedule of unproven value. More than one third of farmers gave only one dose - almost certainly useless to control infection in animals or humans, thus wasting money, time and effort and gaining a false sense of security for themselves and their herds. Most important, only a small proportion of cattle that reach the slaughter houses will have been protected from leptospirosis, leaving the others as a risk to handlers and workers in the meat industry. References: Skilbeck N.W. and Miller G.T. A Serological Survey of Leptospirosis in Gippsland Dairy Farmers. Medical Journal of Australia 1986 - 144: 565

Faine A. Leptospirosis - Still Here. Medical Journal of Australia 1986 - 144: 561.

Source: Aus. Vet. Journ. 63 (Sept.86)

Interesting information for all veterinarians

Evidence suggests that dogs are more sensitive than children to the toxic effects of lead. Since dogs share a similar living environment with children, a diagnosis of elevated blood lead level and/or lead poisoning in dogs should be regarded as an early warning sign that children may also be at risk. In New Zealand, it is obligatory for veterinarians to report incidents of lead poisoning in animals to health authorities.

Source: Aus. Vet. Journ. (Sept.86) pg. 285. Authors T.S. Koh and P.J. Babidge. CwVA Editor's note: To those who rightly claim "That does not belong with the zoonoses" we say "The subject rests comfortably among the zoonoses. Why disturb it?"

Agriculture accounts for up to 50 percent of Africa's gross domestic product, 80 percent of employment and 90 percent of foreign exchange earnings, yet few of its countries spend more than 10 percent of their budgets on farming. Source: FAO report.

Bilateral donors allocate less than 20 percent of total concessional assistance to agriculture.

Source: press report Zaina-Reuter. "The editor is puzzled by the use of the word 'concessional'. Would someone like to clarify the situation?"

An FAO survey of the role of women in agriculture in 82 developing countries indicated that women made up 42 percent of the agricultural work force. Source: NZIAS Apr. 85.

Famine could strike Africa again and again, getting worse and worse and driving nations to the brink of catastrophe, according to a United Nations food report. This report warns "If past trends were to continue, in 25 years' time there would be repeated and massive famines, food imports could bankrupt even prosperous African countries and many of these countries would find themselves close to the limit of survival".

The main conclusion of the FAO study, entitled "African Agriculture - The Next 25 Years", was that African agriculture can recover from its current problems if prompt action is taken to protect the environment, provide support for farmers and improve the external economic climate. It claimed that with the right reforms it would be possible within 25 years' time for all but a few countries to either grow enough food to feed themselves or be able to afford food imports to meet domestic needs.

Source: Sept. 86 press report from Abidjan, Ivory Coast.

The drought may have broken in much of Africa, but the crisis is not over. The drought only exacerbated a chronic underdevelopment problem facing Africa and a sustained international effort is needed to tackle the root causes. It should be realized that aid must not be seen as charity, but as a vital ingredient for making the world - which has been described as a 'global village' - a better place to live in. Source: Dr. Djibril Diallo, Chief of Information of the UN office for emergency operations in Africa.

Latika, a Holstein-Friesian crossbred cow of the Gorakhpur district of India, was awarded the 1984-85 Gopal Ratna Award. The 'Gopal Ratna' is awarded by the Government of India under the 'All India Milk Yield Competition Scheme'. Latika produced over 42 kg of milk in 24 hours, the highest in her category. Latika is a homebred cow owned by Shri Guatam Poddar. Source: Indian Vet. Jour. June 87.

News Flash

CwVA to have observer status at XXIII World Veterinary Congress August, 1987 - Montreal, Canada.

Observations from a cross breeding study

Interesting observations are found in a study of 'Body Weights at fixed Ages of Crossbred Calves of Friesian, Jersey and Lanka Parentage'. The authors are N. Tilakaratne and T. Matsukawa. The study was concerned with a program of experimental crossbreeding, of Lanka (earlier referred to as S'nhalu) cattle with Friesian and Jersey breeds, that was initiated in Sri Lanka about 30 years ago.

It was noted that the mean birth weight of these crossbred calves was 17.4 kg. The calves born during the wet season (Oct-Feb) were somewhat heavier than those born during the dry season (Mar-Sept). Sex had no significant effect on the birthweights.

The mean weight of these calves at various ages were: 2 months-32.5 Kg., 4 months-45.8 Kg., 6 months-58 Kg., 12 months-81.4 Kg., 18 months-100.6 Kg. The low preweaning growth rates, the overall poor rate of gain, the high mortality (20.4 percent) from birth to 6 months of age most likely resulted from low levels of nutrition and/or management.

Conclusions were:

1. In the presence of environmental stresses, such as unfavourable climate, disease and suboptimal nutrition, animals cannot express their genetic potential fully.
2. It is possible that poor environmental

conditions limited the full expression of the true genetic merit of the animals, and that the Friesian-dominated calves suffered a greater setback, contributing to the lack of a significant breed effect on growth.

3. Male and female calves showed similar growth rates. As far as the early growth of calves, under the conditions of the study, there was no difference between Friesian and Jersey as the breed of choice in an upgrading program. The choice should be based on considerations of other characters, and not on breed size.

Source: The Sri Lanka Veterinary Journal, Vol. 31, pp. 32-36.

Interesting results from a study on bovines

A study on 'Comparative Tolerance of Hot-Humid Climatic Conditions by Three Species of Bovidae', by A.A.J. Rajaratne, S.S.E. Ranawana, N. Tilakaratne and A. Srikandakumar, notes some interesting observations, conclusions and suggestions.

It has been suggested that differences in production performance, observed among populations of livestock reared in the tropics are to some extent due to differences in their adaptability to prevailing conditions. In the region of Peradeniya, Sri Lanka, where this work was conducted, the dry season is from January to April, the wet season from May to July, and the intermonsoon season from August to October. The intermonsoon season, which caused the most stress to the animals, is marked by high air temperatures and steady high humidity.

The animals, involved in the study, were heifers aged 23 - 40 months. There were four temperate (bos taurus-two Friesians and two Ayrshires) with a mean weight of 183 Kg.; four Zebu (bos indicus-Sahiwali breed) with a mean weight of 226 kg., and four Murrah buffalo, river type buffalo, (Bubalus bubalis) with a mean weight of 154 kg.

Some of the observations were:

- Buffaloes recorded the lowest basal temperature in all seasons.
- All species recorded a significantly lower pulse rate during the dry season.
- Cutaneous evaporation rates were lower in temperate cattle than in the other groups in all seasons.
- Interspecies variation in respiration rate was evident in all the seasons but most pronounced during the intermonsoon.

It was noted that:

- When exposed to high air temperature and high humidity temperate cattle consistently recorded the highest increase in rectal temperature and respiration and pulse rates. Murrah buffalo were affected to a lesser extent, while the effects on the Sahiwali heifers was minimal.
- The temperate cattle and the buffaloes were found to be most stressed during the intermonsoon season.

It was thought that:

- Differences in heat tolerance might be the result of intrinsic species differences in heat production as well as in heat dissipation. Temperate cattle have a higher metabolic rate.
- With regard to heat dissipation differences cutaneous evaporation appears to be the most critical factor. Buffalo apparently have a lesser capacity to sweat than cattle, and Zebu sweat better than temperate cattle. However buffalo still consistently recorded the highest cutaneous evaporation rates, this would apparently indicate an efficient cooling mechanism.
- The relatively higher respiration rates of temperate cattle may be related to their lower cutaneous evaporation.
- High respiratory activity under conditions of heat stress may be a measure of the inadequacy of cutaneous evaporation to maintain heat balance.
- Heat dissipation by increased respiration is less efficient because the heat produced in the process enhances the heat load.
- The combined effects of higher metabolic rates and dependency on respiratory action for heat loss places temperate cattle in a more vulnerable

position when exposed to hot-humid conditions.

- Temperate cattle suffer from a relatively thicker hair coat while buffalo benefit from more efficient cutaneous evaporation and from the effects of wallowing.
- Maintenance of thermal balance is accomplished largely by cutaneous evaporation in buffalo and Zebu cattle, while in temperate cattle largely by respiratory evaporation.

It was observed that during the intermonsoon season:

- The temperate heifers grazed significantly less and this was reflected by minimal growth rates.
- The Murrah buffalo grazed somewhat less during the intermonsoon season compared to the other two seasons. This resulted in a noticeable drop in growth rates.
- The Zebu heifers grew at a steady rate throughout the period of the study illustrating their superiority in adaptation to the conditions prevailing in this region.

Source: The Sri Lanka Veterinary Journal, Jan-Dec/83

Secretariat publications

A complete list of Secretariat publications is available from:
 Information Division
 Commonwealth Secretariat
 Marlborough House
 London, England
 SW1Y 5HX

Indian Journal - mouthpiece of association

May, 1986 - It is expected that the new Indian Veterinary Journal Building will be officially opened during the 2nd week of October, 1986. The IVJ building is located in Madras. The Foundation Stone Laying ceremony was performed in May 1985. The construction of the building is now nearing completion and the Indian Veterinary Journal will soon move into its own abode. Plans for the inaugural ceremonies are taking shape.

The IV Journal was founded in 1924. From its earliest days it expounded the cause of the veterinary profession without fear or favour. Its forceful editorials inspired the profession and drew the attention of the authorities to problems, needing attention. It strove hard to raise the standard of veterinary education to the international level and to enhance the prestige of the profession within India and abroad. In India,

Did you know that:

Japan has 25,000 veterinarians for a population of 100 million. Of these veterinarians 6,668 are in general practice. 4334 of these practitioners are in small animal work. There are 16 veterinary schools, five of which are private. The total number of veterinary students is estimated to 930.

Source: ZVA News Jan-Apr/86.

the rise in emoluments and status of veterinarians in service was no mean achievement.

In India there are over 25,000 veterinarians, 25 veterinary colleges, a number of research institutions and state veterinary associations in almost all states and union territories. For all of these the IV Journal, as watchdog of the profession, has been quick to take issue whenever any of their interests was at stake. The crowning victory for

the IV Journal was the historic enactment of the Indian Veterinary Council Act in 1984.

Today, as in the past, the Indian Veterinary Journal serves as the window of progress in veterinary and animal husbandry research in India. It is the mouthpiece of the Indian Veterinary Association and champions the cause of the entire profession.

Source: Indian Vet J May/86

Review of CwVA Asia region

The CwVA Asia region was formed in 1967. Between then and 1984 five regional meetings had been held (1972, 1975, 1977, 1979 and 1983). Two of these meetings were in Sri Lanka, two in India and one in Bangladesh.

The region has over 30,000 veterinarians. All three national associations, India, Sri Lanka and Bangladesh, were burdened with many difficulties; some general and some unique to various areas.

CwVA support was as follows:

- Travel grants for study tours, in the field of disease control and livestock development, to selected veterinarians from Bangladesh and Sri Lanka. Visits were made to universities, veterinary research institutes and livestock

breeding and management stations in India.

- A grant to one Indian veterinarian to attend an international seminar, on haemoprotozoan diseases, held in Canada.

- Assistance was given in the distribution of animal husbandry and veterinary journals, including the Indian Veterinary Journal. Educational films and slides were also made available to member associations.

- Assistance to the successful formation of the Bangladesh Veterinary Association.

- Assistance and encouragement to national veterinary associations in their efforts to form veterinary councils and to improve the status of the veterinary profession.

EVERYBODY'S WORLD

Friendships beyond borders

While visiting Hawaii last fall (1986) Dr. Julie Lord, editor of the New Zealand Veterinary Journal, attended a three day seminar organized by the Honolulu Veterinary Society. She had the pleasure of meeting Dr. Allen Miyahara, Executive Vice-President of the Hawaiian Veterinary Medical Association. Dr. Miyahara mentioned his disappointment at the low number of New Zealand colleagues who, during visits to Hawaii, make contact with his office. The Hawaii Veterinary Medical Association and its members look forward to fostering good relationships and exchanging experiences and ideas with their colleagues from overseas. The 1986 HVMA Annual Conference was held in conjunction with the Japanese Veterinary Medical Association. It was a major calendar event and was very well attended and received.

Dr. Robert Goic, a Chilean veterinarian, visited New Zealand under the auspices of the Animal Health Division in October 1986. For most of his professional career Dr. Goic has been a field specialist in the control of foot and mouth disease for the Pan American Health Organization (PAHO). While in New Zealand Dr. Goic delivered a series of talks to members of the veterinary profession in Christchurch, Wellington, Palmerston North and Hamilton. His aim was to discuss the means by which FMD was introduced to Latin America, as well as the difficulties involved in controlling the disease once it is allowed to become established in the national herd or flock.

The Foundation for Continuing Education of the NZVA reported in the

'News and Views' section of the Dec/86 New Zealand Veterinary Journal that the Smithkline Norden Lecture Tour (1987) would be held in February. The Smithkline Norden Company has kindly sponsored a series of one day workshops which are aimed at providing the practitioner with a better appreciation of the new technology in clinical pathology. The Foundation has been able to obtain the services of Professor Tim Lumdsen of Guelph, Canada, to work with Dr. Chris Belford of Whangarei, New Zealand, at these clinical pathology seminars. To ensure that problems, of particular interest to each region, are dealt with adequately local veterinarians will assist at various venues.

Source: New Zealand Vet J V34, N12 Dec/86: News and Views section

Worthy suggestions for veterinary associations

The following article is by Nurse Margaret Brayton of the Commonwealth Nurses Federation (CNF). The advice and suggestions directed to national nurses' associations of the CNF can very appropriately be redirected to national veterinary associations of the CwVA.

Everyday Heroines

The day-to-day work of nurses rarely hits the headlines. Their work is normally taken for granted, even though they serve the community in a very special way. Their duties will take them on foot to villages, on bicycle to health centres, on horseback across unbridged rivers, on boat or floating clinic to family islands, by flying doctor services to remote areas and by motorized transport to district hospitals.

In many countries, their rewards are few in monetary terms, but for the most part they accept their hardships in a devoted and challenging way without regard for the health hazards or other dangers. Their goal with other health workers is to provide a realistic strategy for primary health care to bring about 'Health for All by the Year 2000'.

Nurses know that poor health conditions brought about by poverty, malnutrition, economic instability, environmental pollutants and lack of access to education or health care, are not acceptable in a caring society. In a number of third world countries, the organized nursing profession has convinced their government that the provision of nutritional supplements, communal tap water and latrines is of little

Water - everybody's concern

There has been progress under the International Drinking Water and Sanitation Decade, which has helped bring safe water to 345 million more people and hygienic waste disposal to a further 140 million more people. But these figures represent only about 25 percent of those in need of clean water, and considerably less in the case of sanitation. (WHO Executive Board-Dr. W. Koinange, Director of Medical Services, Kenya).

Three million children still die each year from measles, pertussis and tetanus, and a further 250,000 are unnecessarily crippled by polio. (WHO Executive-Dr. A.P. Maruping, Director of Health Services, Lesotho).

Source: Commonwealth Currents June/86

use if not accompanied by appropriate education.

To influence governments and policy makers, nurses must work in partnership with other health professions and other specialists such as engineers, extension workers and agriculturalists - important partners in the primary health care process.

To promote partnership, the Commonwealth Nurses Federation encourages national nurses' associations to consult with the appropriate ministries and to comment on new health plans; not to do nothing because they have not been invited to comment, but to be alert and effective and to bring the view of the communities they serve to the notice of the decision makers.

The CNF encourages regional net-

works to develop strategies, through seminars and workshops, for action as appropriate at country level.

The most exciting development involving nurses and midwives over the past decade has been involvement in innovative programmes in PHC, in co-operation with traditional practitioners and the community. In addition to their function of caring for the sick, their broadening responsibilities now range through community education and motivation, aspects of disease prevention and control, to problems of socio-psychological adjustment. New concepts of community leadership and function have emerged and there is a new balance of emphasis between the hospital and community.

Source: Change (The International Technology Paper)

Mass casualties

The following short article should provide some thought, and comments in the form of letters to the editor are welcomed.

What do you, the veterinarian, do when the unthinkable happens and this country suffers a major disaster? There you are in the middle of a scene of devastation, masses of human and animal casualties, roads impassable, normal public services gone, what are you going to do?

All medical services are swamped, they cannot cope with the injured and no outside aid is likely to arrive for 24-48 hours or even longer. Are you going to help people?

Just think of all the non-human animals that are in severe pain and suffering, are you going to help them instead?

When this happens here in our country as it inevitably must, what will you do? Have you ever considered that possibility, or is it easier to say "it can't happen here", so I do not have to consider my response.

Your own individual experiences have taught that it helps if, "you know what to do before you have to do it", when faced with any emergency situation.

Therefore, may I suggest you consider the questions posed above and plan "now yes now" what your course of action is to be.

Because I believe your answer must be people first, I fully intend to apply more persuasion to that line of thought and, hopefully, totally prejudice the

outcome of your personal deliberations.

These are the points to be taken into account:

1. **Survive - know how to**, teach your nearest and dearest as well. The yellow pages and telephone cover information will help.
2. **Family plan - make sure** they know what you are going to do and you know what they are going to do, if the family is separated during or following a catastrophe.
3. **Action - what should you do?** What do you want to do? What are you capable of doing? What equipment is left to do it with?
4. **Suggested response - will depend** upon the size, type and severity of the calamity. You must be flexible, but in mass human casualty situations the rule of "the greatest good for the greatest number" must apply. Your specialist skills should be made available to people first, others less well trained can deal with serious non-human casualties. Know the Civil Defence Medical Plan for your area and establish a good working relationship with the local Civil Defence Organization.
5. **Legalties - Denis O'Connell**, our Chief Casualty/Rescue Officer for Wellington City Civil Defence has spent many a long hour researching solutions in this area. He has contacted the legislators in Australia, United States of America, United Kingdom and here in New Zealand. To each he posed the

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Environment: Dugongs in Papua New Guinea

Ms. B. Hudson worked for several years in Papua New Guinea on dugong ecology and biology. She recently returned briefly with a British Broadcasting Commission television crew to film a documentary entitled "Kiwai: Dugong Hunters of Daru". This article summarizes a report of this film, from B.B.C. Wildlife, June 1984, 2, 298-301.

Dugongs range from East Africa to the Red Sea and the Persian Gulf, across the Indian Ocean to India and Sri Lanka, along the coasts of South-East Asia, to the waters of New Guinea and northern Australia. In almost all of these places until as recently as the 19th century, dugongs grazed on coastal seagrasses in vast herds. However, they have been reduced by commercial hunting throughout their range, and the species is now grouped among the most endangered by various international bodies.

Dugong dagon can grow to 3.5m and 400kg, and live for up to 70 years. Dugongs begin to reproduce at 10 to 15 years of age, and females bear a calf after about 12 months gestation, giving birth only once every five to eight years. The calf stays with its mother for several years, learning where its diet of seagrasses can be found. Dugongs feed almost exclusively on seagrasses, devouring up to 40kg a day, and producing, to their cost, very good meat.

The Kiwai people of Western Province have long hunted dugongs for

their meat. The Kiwai culture is based on the hunting of dugongs and turtles, and their knowledge of the reefs and waters of the Torres Strait has been passed from generation to generation. Kiwai traditional hunting technology is insufficiently developed to induce over exploitation. Seasonal storms make travel in traditional vessels dangerous, and some reefs are so distant that they are rarely visited, so that dugongs have been able to maintain their numbers over many generations.

Traditional hunting requires a knowledge of the dugongs' habits, skill in thrusting the harpoon and knowledge of how to bring the quarry to the canoe and drown it. Also regarded as indispensable is an understanding of the charms and magic to bring good luck to each expedition. Only one or two men in each of the five Kiwai villages possess this knowledge, and each might kill perhaps 50 dugongs in their life. Each year the Kiwai traditionally killed about 20 dugongs for food and trade.

Arrival of Western technology, commencing more than 100 years ago, brought changes, at an ever accelerated pace. The traditional flat platforms used for hunting dugongs were abandoned in the 1930's, after which all hunting was conducted from canoes. As the human population of Daru grew in the 1950's, more food was needed, so the Kiwai were encouraged to hunt more often, until in the 1960's about 75

dugongs were being killed each year. Change came even faster in the 1970's - commercial barramundi fishing commenced, using nets in which dugongs became entangled. Netting required no particular skills or knowledge, and catches were completely random, including pregnant and lactating females. Catching and exporting crayfish from the Warrior Reef also developed and was sufficiently profitable for many Kiwai to buy outboard motors, so that nearly all reefs and seagrass beds could be reached safely throughout most of the year, for both fishing and hunting dugongs. More time could be spent on reefs, so knowledge of dugong habits was no longer necessary. Along with traditional knowledge and lore regarding dugongs, social restrictions of previous generations were also discarded. More and more dugongs were caught, so that their meat could not always be used - once a great sin in the eyes of the Kiwai. Daru, and its demand for meat, grew, until in 1979 more than 200 dugongs were caught and killed.

Finally, both government and people became concerned enough to create the Maza Wildlife Management Area. In this area, dugong netting was banned, hunting was prohibited from all craft except traditional canoes, and young dugongs and their mothers were fully protected. Dugongs hunted tradi-

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Mass casualties

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same question. "Are veterinary surgeons used in major disaster or mass casualty situations to treat human patients over and above the first aid level". From the responses received, it would appear that no empowering legislation exists that promotes or prohibits the utilization of veterinary surgeons' skills to save human life in major disaster situations.

6. My Conclusion - you should plan now, to do what has to be done, to save life on the day. If that means employing emergency surgical or pain killing techniques - then so be it. After all, with the casualty's consent, you can virtually do anything anyway.

Your conclusion - let me have it, in the neck, if you like.

Jim McDonald,
Civil Defence Officer,
Wellington City Council
P.O. Box 2199,
Wellington, New Zealand.

40,000 suffer injury on "Devil's night"

Survivors called it "Devil's night" when the yellow cloud drifted silently into the huts and alleys of working-class Bhopal, methyl isocyanate gas seared eyes, throats and lungs. Reports indicated that perhaps 40,000 people had suffered serious damage, with 20,000 blinded.

Bhopal, capital of the Indian state of Madhya Pradesh, used to be a peaceful city. It knew this peace until the night of December 2-3, 1984, when a mysterious and deadly fog descended upon the city.

After escaping from a pesticide factory at one o'clock in the morning, this cloud of death began to wind its way into a nearby section of Bhopal, a shantytown called Khazi Camp. Hundreds of families lived here along the road bordering the factory. This low-income section of Bhopal was peopled by manual laborers, who worked for only \$2 to \$4 a day. Only 15 metres separated these slums from the modern facilities of Union Carbide, a proximity not per-

mitted by law.

Methyl isocyanate, the gas that escaped from a tank in the factory, is used in pesticide production. The danger lurking in vat number 610 was unsuspected. The nearly 350 doctors in Bhopal knew very little, and still don't know much, about this product. The director of the local hospital confirmed after the accident that he had never been told of the danger lying in the Union Carbide factory. When the sun rose on Bhopal that Monday morning in December 1984, it revealed a disaster the world must never forget.

Only 14 days before Bhopal, Mexico City suffered a major industrial disaster as liquefied natural gas tanks with a capacity of 80,000 barrels exploded at the San Juan Ixhuatpec storage facility of Petroleos Mexicanos, killing 452 people and injuring more than 4,000 others.

Source: Development Winter 86/87, CIDA Publication

Did you know that:

Nuclear powered naval vessels' containment facilities are not as strong as those of nuclear power stations, and their fuel is much more enriched. About 0.1 of the radioactive material is gaseous or highly volatile, and the remaining solid fuel in the reactor core is capable of overheating and melting if the cooling systems fail. In this event the white hot reactor remnants would melt through the base of the reactor within hours. A radioactive plume would be released downwind, and if the white hot material melted through the bottom of the ship a steam explosion would occur.

Another type of accident which could occur is a nuclear explosion. Naval reactors use highly enriched uranium fuel and generate high powered densities and temperatures. They are capable of dramatic surges in fission power which could suddenly increase the pressure in the reactor vessel far above normal leading to an explosion. The fragments would probably

penetrate the hull and a cloud of intense radioactivity would be released.

Source: NZVA Subcommittee on Nuclear and Natural Disasters/NZ Vet. Jour. Vol.34 No.9.

There is no information available on reactor accidents in the USSR, but nuclear technology is less advanced and standards probably are lower than in the USA.

An NRC study concluded in 1975 that a reactor core meltdown could be expected to occur once in every 20,000 years of reactor operation, or once in 200 years in a country like the USA with 100 operating nuclear plants. More recently there has been a reassessment of the risks, and the NRC admitted to the US Congress that it sees a 50:50 chance of another Three Mile Island incident within the next 20 years.

Dugongs

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tionally in this area were allowed to be sold in Daru market and penalties were imposed for breaches of the new regulations.

But these measures may have come too late. In 1980, about 100 dugongs were killed for the market, but in 1981 and 1982 very few dugongs were seen, much less killed, leading to speculation that most of the dugong population has been wiped out. In a few short decades the delicate balance of generations has been destroyed, perhaps irreparably.

If the dugong population does not recover, the dugong will not be the only loss for the Kiwai. So much of the Kiwai's culture and environmental management is linked to the dugong that if the species does not recover, the Kiwai may not be able to maintain their way of life. Much of the Kiwai's environmental management rests on a reef tenure system and cooperation between villagers, and the dugong is a key factor in maintaining this system. If the dugong is removed, management of other species may also be at risk. Thus conservation of the dugong here is not merely a matter of conserving a species for its intrinsic value, but also involves maintenance of a complex human culture, its way of life, and its environment.

Source: Papua New Guinea Veterinary Newsletter Aug.'84

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BVA Overseas Subcommittee report

The Overseas Subcommittee of the British Veterinary Association met this past October (1986) in London. The scope of its deliberations confirms the deep interest and genuine concern that the BVA has for the developing countries, not only of the Commonwealth but of our whole world.

Attending the meeting were M.L. Teale, chairman; J.T. Blackburn, CwVA vice-president; D.W. Brocklesby, Director of the Centre for Tropical Veterinary Medicine; A.J. Stevens, a new member of the committee and Helena Cotton, committee secretary. From the report of that meeting it is noted that:

-The BVA has rejoined the World Veterinary Association (WVA) and travel packs to the August '87 WVA meeting in Montreal, Canada are being made available to BVA members. The WVA had been subject to a review by the BVA 'Committee of Three' and related papers prepared by Mr. Blackburn. A letter had already been sent to the WVA president, this letter contained comments and suggestions for improving the organization of the WVA. The chairman expressed thanks to Mr. Blackburn for his interest and stimulation in WVA affairs. The

possibility of the BVA hosting the 1995 WVA Congress is now under consideration.

-Despite the demise of the former 'Overseas Division', the BVA policy towards the developing countries has never changed. There is considerable interest in the Overseas Subcommittee either becoming or stimulating the formation of the British Veterinary Overseas Association. The aims and objectives of the BVA in this area would be restated. It is hoped that a newly formed British Veterinary Overseas Association can be launched at the BVA Congress at Warwick in September 1987.

-The meeting was informed that, under the Small Aid Scheme of the BVA Overseas Subcommittee, flutter valves, needles, gloves, other small items of equipment and some books had been sent to Lesotho. Requests for books had come from India and Bangladesh. It was agreed that the chairman could reclaim the postage cost from the Overseas Fund when he dispatched books to these or other developing countries.

-Recent support received included

equipment from Alfred Cox, a considerable number of out-of-date books from the library at Totworth and a generous donation of £100 from the Southern Countries.

-The importance of the veterinary profession maintaining close ties with the Commonwealth Professional Associations was emphasized. Mr. Blackburn and Helena Cotton had attended a recent (Oct.86) meeting of the CPAs.

-The concept of twinning (between UK regional veterinary groups and national associations of developing countries) was suggested, by Mr. Blackburn, as a worthwhile exercise in real development. The Committee was much in favour of trying to develop this scheme.

-Support for the Mauritius SPCA Appeal Fund is being given serious consideration. This fund has been set up to secure the continued financial health of a Mauritian animal hospital, the life's work of Dr. J.D. Shuja.

-Overseas service vacancies, suitable for veterinary surgeons, are to be publicized by circulating details to veterinary schools.

Centre for Tropical Veterinary Medicine update

The following is a brief update of the history, progress and present status of the Centre for Tropical Veterinary Medicine (CTVM) (University of Edinburgh). It is the summary of an interesting talk given by Professor David W. Brocklesby at the Fifth International Conference of Institutions of Tropical Veterinary Medicine. The conference was held in Kuala Lumpur, Malaysia, during August 1986. Professor Brocklesby is director of the CTVM.

Tropical Veterinary Education and Research in a Cold Climate

Scotland is certainly rather a surprising place to find a tropical institute. There is, however, a simple explanation. Two of the six veterinary schools in the UK happen to be in Scotland and the Scots have always been an adventurous and much travelled race. Scottish veterinarians played the leading role in the old British Empire as pioneers in the colonial veterinary services. It was therefore a perfectly natural thing for the Diploma in

Tropical Veterinary Medicine course to be started in Edinburgh. This happened in 1930 and it was a joint endeavour between the University of Edinburgh and the Dick Veterinary College (which at that time was not a part of the University). In these times British officials working in the Colonies used to have six months home leave every three years; this provided plenty of time for them to spend two terms attending the course in Edinburgh. The course was really a refresher course for old hands - and it also provided training for new recruits to the Colonial veterinary service. The Second World War interrupted the course but it was revived in the early 1950s and has continued ever since. It formed the focus around which an unofficial Tropical Unit gradually grew. By 1964 the Unit was very short of space so the University asked the Ministry of Overseas Development to help. This led to the provision of funds for the construction of a new building, and for the salaries of an enlarged staff and running costs. ODA also gave money for the establishment of a Chair in Tropical

Animal Health: the new building was officially opened in 1970.

By 1978 the staff of the CTVM numbered about 80; at the present time this has been reduced by government cuts to about 66.

In 1974 we started a new course, called Tropical Animal Production and Health and a third course, Tropical Veterinary Science, was launched in 1975. All the courses run for one year and lead to a Diploma (9 months) or an MSc (12 months).

Students arrive in early October and are registered concurrently for a Diploma and an MSc. At the end of the third term in June they sit examinations and only those who pass at a sufficiently high level are allowed to continue on to the MSc part of the course: this occupies the summer vacation and can be a piece of research or an analysis of literature. They write a 10,000 word dissertation for submission at the end of September. If this is satisfactory they are awarded the MSc degree. Those students who pass the

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More information about CTVM

The Centre for Tropical Veterinary Medicine (CTVM) lies between Roslin and the Pentland Hills in a pleasant rural environment, approximately 11 km from the centre of Edinburgh and it is an integral part of the University of Edinburgh.

The University of Edinburgh has been concerned with the education of veterinarians working in the tropics since 1930. At that time a post graduate diploma course was established to provide advanced training for British veterinary officers. Since then the needs of many countries in the tropics have changed and now most of them have their own agricultural schools and many have their own veterinary schools. Today these countries are seeking postgraduate rather than undergraduate training and also help with research projects. The Centre for Tropical Veterinary Medicine was established in 1970 to meet these changed needs with the express aim of helping to improve the efficiency of animal production and public health in tropical countries, throughout the tropics and subtropics. To this end the Centre accommodated the Department of Tropical Animal Health in the University of Edinburgh to enable it to provide

postgraduate training in tropical veterinary medicine and tropical animal production. It also undertakes research and consultancy/advisory work related to the tropics and provides documentation services.

The production of animals in the tropics for either food or power or other purposes is not becoming easier with the passage of time. Land is continually being competitively sought for alternate uses. Countries struggling with economic difficulties cannot always countenance the provision of physical inputs required for livestock production, feedstuffs, drugs, etc. At the same time there is an urgent need to develop small-scale animal systems to stabilize the food supplies of rural areas whilst at the same time avoiding environmental change. There are also other problems in addition to the ones mentioned.

Consequently the need for appropriate training of livestock specialists is particularly acute. Veterinarians and animal production specialists need to be technically trained as well as in earlier days. But in addition they must be trained to be good managers of whatever resources are at their disposal. They must be able to

cope with changing circumstances. And they must be able to communicate their ideas and decisions effectively to their professional colleagues and the livestock owners who are looking to them for leadership and support.

Courses of study, available at CTVM, lead to the following diplomas and degrees: Diploma/Master of Science in Tropical Veterinary Medicine; Diploma/Master of Science in Tropical Veterinary Science; Diploma/Master of Science in Tropical Animal Production and Health. Available research degrees are Master of Philosophy (M.Phil) and Doctor of Philosophy (Ph.D.).

Another available course is the 'Tropag Course in Extension Technology'. The main objectives of this course are to develop an understanding of the potential barriers to change in rural communities and to equip participants with the expertise needed to communicate effectively and to promote agricultural development in developing countries.

CTVM, which houses the Department of Tropical Animal Health, is situated in the University's Veterinary Field Station at Easter Bush. It forms a part

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Information on courses and programs at CTVM

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June examinations at a lower level are awarded the Diploma; those that fail can resit, for the Diploma only, in September.

The Tropical Veterinary Medicine course has been extensively modified in recent years; it now provides training for field veterinary officers and for those who are working in the middle and upper ranks. It is aimed at people who have to plan and execute disease control measures at all levels from district to national, at veterinarians working for international organizations, and also at vets from temperate countries who want to work in the tropics. Emphasis is on prevention and control of livestock diseases, epidemiology, animal production, veterinary public health, management and logistics, project planning, training, extension and legislation.

The Tropical Veterinary Science course is an intense practical training at an advanced level for vets who are concerned with investigation services and the organization of field surveys. The main objective is to provide a good training in laboratory diagnostic methods; this means that we can only

take 10 students on this course each year.

The Tropical Animal Production and Health course is different in that it is open to non-vets; agricultural graduates and others are accepted. This course is part of our attempt to bridge the gap between the vets and the animal production people. A dichotomy between these two professions is a common feature of the livestock industries in many countries. This course aims to give a comprehensive review of the main constraints to animal production in the tropics and how they can be overcome.

The Research Programme of the CTVM is carried out by a staff of 48 and they are divided into four sections:

The Animal Husbandry Section is entirely concerned with draught animals; this is a very neglected subject - surprising when draught animals provide one quarter of all the power used in agriculture in the developing countries. At the CTVM we have Brahman cattle and swamp buffaloes, we have treadmills and other devices on which they walk and work, and we have designed special instruments for measuring work and energy.

The Helminthology Section is conducting research on cestode zoonoses (the tapeworm) and on fascioliasis (the liver fluke). At the moment the work is focussed on fundamental immunochemistry related to diagnosis and protection, potentially through the development of a genetically engineered vaccine.

The Microbiology Section is tackling a particularly horrible skin disease called streptothricosis, more properly known as dermatophilosis; this infection occurs all over the world but is particularly prominent in the tropics of West Africa after the start of the rains. The objectives are to develop a vaccine through fundamental immunological studies and also to establish the effect of insect and tick control. Rickettsial immunity in sheep, and pox diseases are also being studied in this section.

The Protozoology Section is the largest research group at the CTVM. It conducts research into two protozoal diseases of major economic importance in developing countries and in extending and disseminating the results of this, primarily in the form of new techniques, to those countries. The

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Did you know that:

Functions of CTVM

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 work is concentrated on trypanosomiasis caused by *Trypanosoma congolense* and *T. evansi* and on ticks and tick-borne diseases, primarily the theilerioses caused by *Theileria annulata* and *T. parva* and their vectors *Hyalomma anatolicum* and *Rhipicephalus appendiculatus*. The multidisciplinary nature of these studies has resulted in extensive collaboration with many institutes and departments in Edinburgh, Cambridge, Glasgow, Birmingham and Bristol - and also with overseas centres in Kenya, Morocco, and India.

The Nuclear Regulatory Commission (NRC) reported that of the 97 operable nuclear reactors in the USA, ten suffered 'significant events' last year (1985). None of these led to a leak of nuclear radiation, although one in Ohio featured '40 minutes of chaos and fast approaching disaster' and, in another in California, there was near disastrous flooding of the reactor vessel.

The details of previous accidents are not readily available. In Kyshtym in the USSR, 30 villages and towns 'disappeared' in 1957-58, as the result of a mysterious nuclear accident. Accidents

have also occurred at Cap de la Hague in north west France, at Three Mile Island in the USA in 1979 and at Sellafield (Winscale) in the UK in 1957.

Four reactors in South Carolina have been bedevilled by leaks and problems and one, leaking 45 kilograms of tritium a day, has been closed.

Chernobyl had no containment building to limit the spread of radiation in the event of an accident, nor do nine reactors in America, most of which are old.

Source: NZVA Subcommittee on Nuclear and Natural Disasters/NZ Vet. Jour. Vol.34 No.9.

The CTVM has two other important functions. The first is the provision of consultants to ODA and other international agencies; there is a growing demand for this and we sometimes arrange these services through Tropag Consultants Ltd. The final activity is Documentation; we produce a well-known journal called Tropical Animal Health and Production four times each year, and have recently started a new one, Draught Animal News. Periodic information sheets are sent to interested workers and also a six monthly Newsletter which gives an account of all the activities of the Centre.

CTVM information

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 of the Edinburgh Centre for Rural Economy which contains not only many agricultural units and University Farms, but also the self catering student hostel in Bush House and a veterinary investigation centre.

CTVM has its own library and reading room, which is a part of the university library and has ready access to the extension facilities of all its other units. There are computer terminals in the Veterinary Field Station and the Centre has recently acquired its own mini-computer to assist in storing and processing research and teaching data.

Information about CTVM, and available courses, can be obtained from The Director, Centre for Tropical Veterinary Medicine, Easter Bush, Roslin, Midlothian, EH25 9RG, Scotland.

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Further information is available on request.

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Extracts from abstracts

Dog Control-In 1979 Barbados initiated what is probably the first full scale dog control programme in the English speaking Caribbean to cope with the public health, safety and ecological problems caused by free roaming dogs. Stray and straying dogs are responsible for attacks on people, killing livestock, spillage of garbage - so increasing the sanitation and rodent problems - and fouling the environment. They pose a health hazard to people from several zoonoses, notably in the Barbados situation *Leptospirosis* and *Larva migrans*. A large free roaming dog population can have a negative effect on a developing tourist industry, and, as is common in most places, is the direct result of irresponsible dog ownership.

To change owner attitudes and behaviour, education - primarily of owners is fundamental particularly in regard to environmental concerns, and to achieve these ends a full scale education campaign involving the press, the media, lectures, distribution of educational pamphlets etc. is essential. Effective licensing and leash ordinances are vital to any dog control programme as is a thoroughly trained, articulate and highly professional staff. The benefits of the dog control programme in Barbados appear to have justified the costs. (Speaker A.W. Vaughn)

Leptospirosis - Animal surveys in the Caribbean indicate a high rate of exposure to *Leptospirosis* which does not necessarily result in mortality, morbidity or abortion, but which probably contributes to the high exposure rate in man. Studies in Barbados, Trinidad and Grenada have shown exposure rates of: 25 to 92 percent in cattle, 35 to 53 percent in pigs, 17 to 86 percent in sheep, 25 percent in goats, 76 to 80 percent in horses, 12 percent in cats, 41 to 55 percent in dogs and 11 percent in chickens.

Wildlife can be important sources of *Leptospirosis* in the southeastern Caribbean. We have isolated *Leptospira* from wild and peridomestic rodents (including *Rattus*), mongooses, opossums and toads. *Leptospiral* agglutinins have also been found in all of these types, as well as in numerous genera of bats, primates, other amphibia and lizards. (Speaker C.O.R. Everard)

Dairy Cows - Metritis or endometritis is usually due to contamination at calving. Early postpartum infections are due to barnyard organisms, primarily aerobic bacteria. As the uterus in-

volutes and the cervix closes the uterine lumen becomes an anaerobic environment making routine treatment for endometritis with antibiotics unsuccessful. (Speaker Michellem LeBlanc)

Piglet Mortality - Changes in the hog farming industry have proceeded at a rapid pace and with revolutionary fervour over the last two decades. Even with these vast changes and implementation of new techniques and technology, the preweaning mortality (deaths between birth and weaning) for the major pig producing countries around the world has remained at about 20 percent. This represents a severe limitation to both increased productivity and profitability. (Speaker S. Ernest Sanford)

Antibiotics - Public concern regarding the hazards associated with the use/abuse of antibiotics in livestock production is regularly fuelled by scientific, pseudo-scientific and media reports linking human illness to antibiotic abuse in animals.

In particular, the use of sub-therapeutic levels of antibiotics for the purpose of growth promotion, comes under frequent attack. (Speaker T. Feltmate)

Poultry - Poultry production has undergone enormous changes in the past 50 years and the prediction is that it will continue to change for years to come. Compared to other types of meat, the consumption of poultry meat is continuing to grow at a faster rate as a result of consolidation of production, improved genetic lines and nutrition, increased efficiency in production, management and disease controls at regional, national and international levels. As a result it is quite common and even normal to see some old diseases disappearing or staying under control and new ones appearing. It is also not uncommon to see some old diseases such as Newcastle or influenza reappearing as a result of international movement of chicks, poultry products and companion and migratory birds. (Speakers A. Slim and G. Bernier)

Egg Drop Syndrome - Poor egg production can be due to many causes. These causes can be classified into management and nutritional factors or infectious agents. Management factors which are important in obtaining and maintaining maximum egg production include proper pullet rearing, proper lighting programs, adequate caging

and ventilation and proper supply of water.

Nutritional factors which can affect egg production include overall quality of feed, excess or deficit of specific ingredients such as salt and calcium and contamination of feed with toxins or certain drugs.

Any severe clinical infectious disease will cause a physiological disturbance resulting in poor egg production. In many diseases, other clinical features of the disease are more prominent than the egg production drop. In some diseases, however, the primary clinical effect of disease may be an egg production drop. These latter diseases are often important and cause the most difficulty in diagnosis. They include Infectious Bronchitis, Newcastle disease, Avian Encephalomyelitis, adenovirus infection, in particular "Egg Drop Syndrome 76" and Mycoplasmosis. Diagnosis of these diseases often requires serology. The recent development of Elisa tests for some of these diseases and flock profiling may have significant application in such diagnosis. (Speaker C. Riddell)

Quarantine Measures - It is necessary to carry out international trade in animals and animal products but in doing so the national livestock must be protected against the occurrence or introduction from abroad of infectious and parasitic disease.

No international movement of live animals or products of animal origin can be effected with all the necessary guarantees unless extensive, specific and up-to-date information is in hand on the world and regional zoo-sanitary situation. Because of the importance of this information, countries should maintain statutory obligation to submit periodic reports of their disease status. (Speaker K.D. Urquhart)

Source: Commonwealth Caribbean/Canada Veterinary Workshop, 1986, Barbados, WI.

Expanding careers

In 1986 Dr. John McGowan was appointed Senior Assistant Deputy Minister for Agriculture Canada. Prior to this Dr. McGowan had been Assistant Deputy Minister for the Food Production and Inspection Branch of Agriculture Canada. Among other responsibilities of Dr. McGowan's new senior appointment is the responsibility for Agriculture Programs at Agriculture Canada.

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Council members and guests attending the CWVA/Caribbean/Canada Joint Conference held in Barbados, November 27 to December 3, 1986. Front row left to right, J.T. Blackburn (VP), L.P.E. Choquette (President), J. Robinson, M. Isaacs, G. Swanston; second row left to right, W. Christian, G. Ferdinand, B. Nyacka, visitor from Nigeria, J. Archibald, C.F. D'Souza (Kenya); back row, left to right, B. Bell, H. Williams, L. Nisbett, F. Alexander, K. Scotland, S. Surujbally, K. Amiel, M. Clarke, G. Morgan, G. Stevenson.

Caribbean Canada Joint Conference 1986

The 1986 Joint Commonwealth/Caribbean/Canadian Veterinary Conference took place in Barbados November 27 to December 3. The event was attended by 240 participants, 170 of which were Canadian.

Dr. Gary Morgan, President of the CVMA, addressed the crowd in the opening ceremony. Lecture topics ranged from "Hair Loss in Cats" to "African Swine Fever Eradication from Haiti".

Other speakers included the Hon. Warwick Franklin, Minister of Agriculture, Food and Fisheries in Barbados, Dr. Lloyd Webb, President of the Caribbean Veterinary Association and Dr. W. F. Huey, President of the Barbados Branch, Carribbean Veterinary Association. The next joint convention in 1988 will tentatively take place in Guyana and Venezuela.

Source: CVMA-Let's Talk-Jan/87

Ethology - a young science

Ethology, the study of animal behavior, is a field of growing importance. Recognizing this, Dr. Don McKeown of the Ontario Veterinary College switched from surgery to specializing in ethology.

Understanding more about the bond between animals and their caretaker is a primary goal of ethology. One tends to associate this with the area of companion animals, such as dogs and cats. However, as Dr. McKeown points out, the food industry could one day benefit from a better understanding of animal behavior. He points out, for example, that with pigs tailbiting and cannibalizing of the newborn are still problems.

Dr. McKeown notes that there is no evidence that domestic animals can

reason out behavior. Consequently the animal's unacceptable behavior is not spiteful, but either an inherited or learned reflex to some sort of internal or external stimulus. He also states that like humans, animals under stress may react with behavioral problems. Stress can be caused by something in the environment or by a disease. Breeding animals that can more readily adjust to the environment may eventually reduce this stress.

Interested parties might write to Dr. McKeown at the Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada, N1G 2W1.

Source: Canadian Vet Supplies-summer 86/Ethology - A New Science by Joan Waid.

Expanding careers

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Also in 1986 Dr. P.L. McKenzie, secretary-treasurer of the Guyana Veterinary Association and editor of the GVA newsletter, was appointed Senior Minister of Agriculture of Guyana. Dr. McKenzie is the second veterinarian to be Guyana's Minister of Agriculture since 1981. During this same short period one of Guyana's prime ministers has been a veterinarian.

Source: letter of 11-20-1986 from Dr. R.S. Surujbally and Can. Vet. Jour. Nov./86.

A South Pacific Island interlude

This feature needs no introduction. It speaks most eloquently for itself. The author, Dr. Eric Shortridge of Havelock North, New Zealand, is CwVA council member for New Zealand. Dr. Shortridge conducted his Pacific Island mission last year (1986).

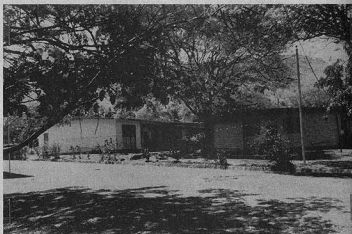
by Dr. Eric Shortridge

It should not be difficult to guess my reaction to a phone call one autumn morning asking whether I would be interested in a three month secondment to visit ten Pacific Island countries during the New Zealand winter. The mission was to undertake a consultancy sponsored jointly by F.A.O. and the New Zealand Ministry of Foreign Affairs to investigate the legal provisions for animal quarantine procedures in the South Pacific region, to identify problem areas and recommend solutions to these.

The countries to be visited were Papua New Guinea, the Solomon Islands, Vanuatu, the Cook Islands, Niue, Fiji, Tuvalu, Kiribati, Western Samoa and the Kingdom of Tonga. All of these countries are members of both the Commonwealth and the Pacific Forum. The original plan was for the mission to take place between May and August which climatically are amongst the best months for travelling in the area. As it turned out, there were delays in arrangements and the visits were made between August and October. This still avoided the wetter summer months when temperatures and humidity can be high and devastating hurricanes can occur.

A hurried trip through ten countries in two months with stopovers in Australia and Nauru can only give a brief impression of these fascinating countries. It would be necessary to live in each for years to really get to know them. All have some similarities but all appear to be quite distinctive and different both geographically and culturally. Geographically there are two types of islands. Some are of volcanic origin with high jagged peaks and generally deep fertile soil. Others are coral atolls sometimes rising to little more than 25 feet above sea level with little soil on top of the coral, little fresh water and supporting only hardy vegetation and the ubiquitous coconut palm.

Life can be kind on many of the islands with the warm equitable climate necessitating only simple shelter and creating little or no worry about keeping warm. Basic food needs can be obtained from the sea, the



Veterinary Laboratory, Port Moresby, Papua New Guinea.

coconut palm and depending on the fertility of the soils from a variety of tropical vegetables and fruit which many of us regard as luxuries. With almost every family keeping poultry and pigs under the system of subsistence agriculture, there appears to be little if any evidence of hunger or lack of the basic necessities of life. The deeply entrenched social systems, centred round the extended family, go a long way towards ensuring that the disadvantaged, through sickness or other cause, are looked after. There is a deep commitment, to religion and the Church in most of the island communities, which provides for spiritual fulfilment.

The image of the South Seas of warm trade winds, gently swaying coconut palms and friendly people exists in reality. However there is another side of the coin.

In the Melanesian countries of the Western Pacific diseases such as Malaria and Dengue Fever are endemic and exact their toll on life. The climate is not always benign and can be very hot and humid. Almost every island visited had its shipwrecks as mute evidence of past hurricanes. It is not the most tranquil experience for a traveller to descend through about 8000 feet of cloud in a small aircraft at the end of a five hour flight from a neighbouring country to find that the cloud is right down to coconut tree height, it is blowing a gale, pouring with rain, the beacon at the airport is out of action and the pilot can't find the airstrip. One wonders how many hours

it is over how much water to the next airstrip and will conditions there be any better. Fortunately this experience on my trip had a happy ending with an alternative airstrip on an island half an hour away and slightly better conditions there allowed for a happy landing. The devastation caused by a hurricane such as the one which hit Guadalcanal last year has to be seen to be believed and to me was always at the back of my mind on atolls on which the highest point was not much more than 25 feet above sea level. Life on the islands can be hard.

A further problem in the islands is the greener grass over the fence. There are some marvellous features of island life such as the closeness of families; the spiritual satisfaction from island customs and the deep commitment to religion and nature's bounty from the sea and land. However with the improvement in modern transport and communication and greater mobility of people, there is, particularly amongst the young people, a realization of and desire for some of the trappings of the materialistic world such as motor vehicles, television, videos, alcohol, education and regular work and income.

As a result, there has been and still is, a massive movement of people from the islands to other countries which offer a more materialistic living environment. This splits families, depopulates villages, causes breakdown of island infrastructure, closes island schools and churches which to me was sad to see.

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Countries have two agricultural systems

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The extreme example I saw was one small country which now has a population of little over 2000 and from which there are now over 10,000 of the island's population or descendants living in New Zealand. The empty schools, boarded up churches and doors swinging on abandoned houses I found depressing.

So far I have said nothing about veterinary science and little about agriculture.

There are two quite distinct agricultural systems in almost all the countries visited. Subsistence agriculture is practised by families, extended families and village communities. This is the traditional agriculture based on each family unit having its own area of land on which it grows all its needs of tropical vegetables and fruits including the produce of the coconut palm, the tree of life in the region. The horticultural produce

appears to be scope for improved management using existing resources to improve productivity. The indigenous breeds of animals have adapted to this system over the years and unless there are big changes in management, will probably survive and produce better than exotic improved breeds. Maybe introduction of improved breeds would catalyse the improved management which would be required to capitalize on them.

In some countries, particularly those with richer volcanic soils, other animals are also kept under the subsistence agriculture system. These include horses, cattle and goats. In many of the countries goats are a relatively recent introduction and their niche in the system is not yet established. Cattle are accepted in a few countries but in most to which they have been introduced they have not been an unqualified success in the subsistence system as

have much impact on productivity. There are few if any of the serious infectious diseases of livestock in these isolated island countries.

The other livestock sector present in a greater or lesser degree in almost all countries is the commercial sector. This varies from small semi intensive poultry units to large commercial beef herds of up to 10,000 head. Almost all the countries are dependent on imported meat to supplement that produced under subsistence agriculture. The aim of the commercial livestock sector is to replace and spare expenditure on imports.

In only one of the countries visited is there any immediate prospect for export of meat in any quantity.

Animal health problems are principally the result of undernutrition and sub optimal management. Apart from parasitism, most serious infectious diseases appear to be absent from the animal populations of the Pacific Islands.

Because of the great importance of both subsistence and commercial agriculture to the nutrition and welfare of the human population, it is most important to ensure that the introduction of infectious animal diseases is prevented through quarantine measures. This was the purpose of my mission and has been reported on elsewhere.

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



A pig pen built of coral, Funafuti, Tuvalu, South Pacific.

is supplemented in most of the countries by bounty from the sea including fish, molluscs, crustaceans and sea plants and also by animal protein from animals raised by the family. This is essentially a non monetary system and in many countries its contribution both socially and economically cannot be assessed in monetary terms. Subsistence agriculture is nevertheless of vital importance. The basic livestock are pigs and poultry. These are fed on much the same diet of tropical vegetables and fruit as are eaten by the human population supplemented by food from the sea and what the animals can obtain by scavenging and foraging. Productivity is not high and there ap-

pears to be scope for improved management using existing resources to improve productivity. The indigenous breeds of animals have adapted to this system over the years and unless there are big changes in management, will probably survive and produce better than exotic improved breeds. Maybe introduction of improved breeds would catalyse the improved management which would be required to capitalize on them.

Generally throughout the region diseases other than parasitism and nutritional deficiencies do not appear to

South Pacific needs more veterinarians

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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 take up a 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 expatriates 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 almost all these countries veterinary surgeons are working in small groups in scientific isolation. Few of the Governments have funds to spare for veterinary journals. This must be one area of the world where the Commonwealth Veterinary Association programme encouraging the donation of veterinary journals after they are



Veterinary Laboratory and offices, Honiara, Guadalcanal, The Solomon Islands.

finished with to a colleague who does not have access to them would be of great value and would be much appreciated. Not only would this help

meet the Association objective of dissemination of knowledge but it would also help achieve another objective of the Association of encouraging

contacts between veterinary colleagues throughout the Commonwealth.

If anyone anywhere would care to donate and post copies of veterinary journals after they have finished with them to a colleague in a South Pacific Island, I would give them the name of someone who would appreciate receiving them.

Toxicology: pesticides and tropical birds

As the list of endangered species grows, announcements of yet another species being threatened with extinction tend to lose their shock value. However, announcement of the apparent disappearance of an entire fauna may attract more attention, especially when such an announcement comes from Guam and may portend similar reports from other Pacific Islands.

A recent report (Diamond 1984) discusses a monograph by J.M. Jenkins on "The Native Forest Birds of Guam" (Amer. Ornith. Union Monogr. No.31, 1983). Guam, a U.S. territory in the Marianas group, formerly harboured 13 species of native forest birds, 11 of which were endemic to Guam or other islands of the Marianas. Most species were common or abundant until the early 1960's, after which all went into decline, to the extent that four are now near extinction. "The worst-affected area is southern Guam where nine species have disappeared completely and only one remains common. The surviving populations of most native species were now confined mainly or en-

tirely to the northernmost one-tenth of the island, the rest of Guam having become virtually an ornithological desert for native species".

Habitat destruction, introduced predators, storms and infectious disease are regarded as probable causes of extinction of island birds - but none of these reasons appears to explain the situation on Guam. There are still extensive areas of native forest, and most forest destruction is in the north, where native birds are in fact doing best. All but one introduced predator (mammals, lizards and snakes) have been present in Guam since 1890, and although periodic typhoons affect the island, native birds must have been exposed to these throughout their evolutionary history. There is also no evidence of introduced infectious disease as the cause of the birds' decline, so another cause has been south.

Several pieces of evidence implicate pesticides as the likely cause. The U.S. military "sprayed, dusted and fogged" DDT weekly onto Guam (especially southern Guam) during and after the

Second World War and "farmers in southern Guam carelessly applied large amounts of DDT in the 1960's". Tissues of insectivorous swifts examined in 1975 had mean levels of the DDT metabolite DDE of 0.27 p.p.m., and guano from their nests yielded residues increasing from 0 to 0.1 p.p.m. from oldest to most recent layers. "Farmers, developers and the U.S. military are still applying insecticides and herbicides today for pest and weed control. The insecticide hypothesis would explain why Guam's insectivorous birds have suffered steeper population crashes and more severe range contractions than have its omnivores and herbivores.

As the reviewer's report notes, controls on the use of pesticides in developing tropical countries are often few or poorly enforced. If the pesticide theory of origin of recent population crashes of native birds on Guam proves to be substantially correct, other tropical avifauna, including those of Papua New Guinea, may well be facing a similar fate.

Source: Papua New Guinea Veterinary Newsletter Aug/84.

Letters to the editor

This issue (July/87) of the CwVA News completes our second year of publication. During that time we have received numerous, very welcome and much appreciated letters of support. We take pleasure in presenting two of the most valued and significant ones.

From Liti -Mpwapwa; P.O. Box 51; Mpwapwa; Tanzania.

To The Editor, CwVA News Bureau.

Dear Sir:

I was very impressed by the news and information you carried in the CwVA Vol 1 No. 2 of July 1986. In fact this was my first copy of your lovely newsletter to read.

As a veterinarian I find the newsletter very informative, educational, useful and something not to miss. I therefore make a request for a copy of this newsletter regularly so as to keep myself up-to-date of what is happening within the Commonwealth countries as far as the veterinary profession is concerned.

Yours sincerely,
Leon Mboera.

From "Chorokio Aushadhalya", Hospital Road, P.O. Dist.-Chapai-Nawabganj, Bangladesh.

To The Editor, CwVA News Bureau.

Dear Sir:

I am a Bangladeshi government-employed veterinarian. Fortunately, I have gone through your wonderful publication, the CwVA News, which is dedicated for the professional upliftment of the veterinary profession of the Commonwealth countries. I would like to congratulate you all for this dedicated and noble effort.

I love my profession too much and want to communicate with our fellow Commonwealth veterinarians through your superb publication. May I request you to enter my name in your readers' list and could you please send me the CwVA News regularly to my address. It would be a great pleasure for me if you would do so. Lastly I want to give thanks to the CwVA authority.

With thanks,

Dr. M. Ahmed Mamun.

Ticks cause tremendous economic loss

In Sri Lanka ticks per se and the diseases transmitted by them cause tremendous economic losses to the animal industry. The ectoparasites are present in all regions of the country, and are known to infest all domestic and many wild animals. Of the domestic animals cattle, goats and dogs appear to be the most affected. Many tick species have been incriminated as transmitters of haemoprotozoan parasites in cattle and dogs, but no information is (1983) available regarding that on goats. Goats are predominately reared in the dry zone of Sri Lanka and they harbour many species of ticks. The ear of the goat was found to be the most preferred site for attachment of ticks of all stages.

Source: The Sri Lanka Vet. J. Vol 31, 1983, pgs. 14 and 18

Clinical mininote from Canada

An important segment of the Canadian beef industry is the feedlot operations in the Eastern Province of Ontario. The Prairie Provinces of the West supply these feedlots with a great many of the replacement cattle. These are usually recently weaned range calves. The long journey east by cattle linear, the complete change in their mode of living, inclement and often changeable weather subject these calves to stresses which predispose them to a variety of problems. It is usually within the first month in their new home that the calves take sick. Respiratory disorders, aptly referred to as "Undifferentiated Bovine Respiratory Disease" (UBRD), are of the greatest concern. High morbidity and substantial mortality in the calves, stress to the veterinarian and stress and expense to the owner often mark the course of an outbreak.

Field trials, in the fall of 1984, by Drs. Ken Bateman, Bob Curtis and Wayne Martin of the Ontario Veterinary College provide useful information on the efficacy of three different drugs for therapy in outbreaks of UBRD. The drugs are "Penicillin", "Oxytetracycline" and "Sulfadoxine".

The work done in these trials indicates - quote: - "no important differences in response and relapse rates between the three drugs".

In "Feedlot Respiratory Disease" therapy the Doctors emphasize the importance of DILIGENT OBSERVATION AND EARLY DETECTION AND EARLY AGGRESSIVE THERAPY OF

ADEQUATE DURATION.

Source: Canadian Vet Supplies-summer 86 / Feedlot Respiratory Disease Treatments Assessed by Ian Campbell.

Asian livestock

Asia contains many species and breeds of animals about which little is known. Among these are the domesticated banteng, yak, mithan, kouprey, babirusa, and several species of native pigs. In addition, Asian farmers raise two hybrid bovine animals - the madura (banteng-cattle hybrid) and yakow (yak-cattle hybrid).

Banteng of eastern Indonesia are already important as food and have considerable potential for increased production if modern methods of selection are employed. They seem resistant to tropical parasites and certain diseases and can thrive under hot, humid conditions.

The Tibetan yak, on the other hand, is accustomed to cold climates. The mithan is a woodland browser found in mountain forests and bamboo jungles of Burma, Bhutan, Bangladesh and India. The most primitive of living cattle is the kouprey. Now close to extinction, a small number remain in Thailand,

Laos and Kampuchea.

Wild pigs are often the most abundant source of animal protein in countries of Southeast Asia. At least some of Asia's pig species have potential as domesticated livestock and as sources of genes for improving the domestic pig. Among their close relatives is the babirusa, of eastern Indonesia, an animal that resembles a pig, but has an extra stomach sac and feeds on leaves like a deer.

Source: ZVA News.

Did you know that:

Throughout the world, soil erosion is once again becoming recognized as a serious limitation to man's future. Some reviews consider that at present erosion rates, the world has only 100 years of agricultural soil remaining.

Source: Casas News/Number 15 - Reprinted from the Bulletin of New Zealand Institute of Agricultural Science.

Support needed for CwVA program

More support is needed for this CwVA program. Requests, from developing lands, for textbooks, reference books, journals and educational aids should not be allowed to go unheeded. Books sitting around unused are but dust-catchers, however even the outdated ones are as good as new to someone who needs them.

Dr. R.G. Stevenson, P.O. Box 1410, Sackville, New Brunswick, Canada, E0A 3C0, is head of the CwVA journal and book project. Australians can contact Dr. W.J. Pryor, Galwiji, Pryor's Road, Scotsburn, Victoria, 3357. New Zealanders can contact Dr. Eric Shortridge, Brookvale Road, Havelock North, New Zealand.

The British Veterinary Association has for many years now carried out a similar type of programme. This is the BVA 'Veterinary Journal, Book and Small Items of Equipment' programme. As the name indicates it also includes sending out smaller items of veterinary equipment and supplies. In charge of this project is Mr. Mike Teale, BVA, 7 Mansfield Street, London, W1M 0AT. Interested UK and European veterinarians are urged to contact Mr. Teale.

Did you know that:

In the dry zone of Sri Lanka wallowing is a major route of heat loss in the Lanka, Murrah and Surti buffaloes. In order to ensure that buffaloes use this adaptation to their best advantage, they should be grazed close to water and allowed to wallow when they wish to.

Source: The Sri Lanka Vet. Jour. Vol 31, pg. 48.

Coming Events

July/87 (1)

ZIMBABWE VETERINARY CONGRESS

Sept. 1-4, 1987 / Nyanga, Zimbabwe
Zimbabwe Vet Assoc - Box 8387 - Causeway

BRITISH VETERINARY ASSOC. CONGRESS

Sept. 1987 / Warwick, England
BVA-7 Mansfield St. - London - W1M 0AT

5TH SCIENTIFIC CONGRESS

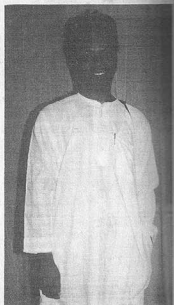
TANZANIA VETERINARY ASSOC.
Dec. 1-3, 1987 / Arusha Conference Centre
Tanzania Vet Assoc.- Box 3021 - Morogoro.

Professor Aire accepts nomination for WVA vice-president, Africa

The CwVA News Bureau has been informed that Professor Tom A. Aire of the University of Ibadan, Nigeria, has agreed to accept a nomination for the post of WVA Vice-President for Africa. Elections for executive positions of the World Veterinary Association will be held during the XXIII World Veterinary Congress this August (1987) in Montreal, Canada.

Professor Aire is Nigeria's representative on the Council of the West Africa Region of the Commonwealth Veterinary Association. He is highly respected and very popular in CwVA circles, where he is known as a dedicated and talented colleague.

Professor Aire is well versed in modern veterinary activities and thoroughly familiar with the problems of development. His personal qualities and professional qualifications will make him a most credible candidate.



Professor A. Aire, University of Ibadan, Nigeria.

Technical section, a new dimension

Thanks to the efforts of Vice-President Trevor Blackburn the CwVA News will contain a 'Technical Section'. Items will come from the newsletter, published twice yearly by the Centre for Tropical Veterinary Medicine at Easter Bush, Scotland, and from CTVM's information leaflets.

The CwVA News feels privileged to be allowed free access to information coming from such an authoritative and well-known source. We sincerely thank CTVM's director, Professor David W. Brocklesby, for his courtesy, cooperation and generous support.



Professor D.W. Brocklesby, Director, Centre for Tropical Veterinary Medicine (CTVM).

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