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The Australian Veterinary History is a Special Interest Group of the AVA (AVHG). All who are interested in any aspect of veterinary history may join. Annual subscription is $20. Enquiries to the President, Dr. Andrew Turner, 25 Garton Street, Princess Hill, Victoria 3054, Australia. Tel/Fax 61 3 9380 1652. 
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7. Report of the Honorary Librarian: Dr R Roe
8. Report of the Honorary AVA Archivist: Dr DR Johns
9. Report of the Honorary Editor of the Australian Veterinary History Record: Dr IM Parsonson
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    President: AJ Turner
    Secretary/Treasurer: JH Auty
    Librarian: RT Roe
    Editor: IM Parsonson
    Committee: P Canfield, AT Hart, KL Hughes, AJ Turner
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The next AVA Conference is on 25 - 30 May 2008 in Perth WA.

ANNUAL MEETING SPECIAL INTEREST GROUP IN AUSTRALIAN VETERINARY HISTORY Perth Western Australia
Monday 26 May 2008

President’s Report

Dear Members
This issue of the Australian Veterinary History Record in November 2007 marks the 51st printing of ‘The Record’. The Record over the last 11 years has collected veterinary and allied science history that will prove to be a valuable asset for current and future generations of veterinarians and associated disciplines. It is the desire of the Committee that valuable insights into the development of the veterinary profession in Australia continue to be collected. The diligence and work of previous and current Editors and previous Presidents in maintaining an active involvement in veterinary history is gratefully acknowledged.

You will have noted that the Max Henry Memorial Library (MHML) has been placed in the Gilruth Library at the Veterinary School, University of Melbourne, Parkville, during the last Annual Meeting. Dr Nicki Mock, a veterinary graduate as a trainee librarian with the University of Melbourne, is cataloguing the Library. Dr Tom Hart, Honorary Librarian, is anxious to increase the library and is seeking donations of books and money to further the MHML. A separate bank line in the AVA account in the name of the Library has been arranged into which money donations will be placed and payments made from. If you want to donate books or money please contact Tom at tomtomhart@tpg.com.au. The report on the Library in this Record by Tom represents AVHS policy on Library acquisition and a policy framework for the future development of the MHML. The incorporation of MHML into the Gilruth Library represents years of persistent effort by former AVHS Committee members especially Dr Trevor Faragher.

I also write to invite you to the next Annual Meeting of the Australian Veterinary History Special Interest Group that will be held in Perth on Monday 26 May 2008. We have the development of a very good scientific
program; if there were members who would wish to present a paper as part of the scientific program, would you please contact me as soon as possible at ajturner@bigpond.net.au or 61 3 9380 1652. As well as the scientific program and annual meeting there will be the Annual Dinner at a venue yet to be decided on the Monday evening.

I look forward to seeing you in Perth at around 7.30 am on 26 May 2008.

Andrew Turner
President
Update on the Bob Taylor AVA Historical Collection

The Historical Collection is currently in storage at the National Office in Sydney. There is little space to display there, and few people would be able to see it. However, the Collection is now on the AVA Risk Register and developing policies for securing and displaying the collection is a priority. As an avid amateur historian (my membership of the History SIG is pending) I have volunteered my services to assist with this.

In May 2006 Kim Morris, Director of Art and Archival, was appointed to assess the collection in Canberra. He produced a detailed list of every item and its condition, and gave recommendations about how it could be stored without further damage while its fate could be determined. He found that some items were becoming very fragile. For example, much of the rubber was deteriorating on instruments, and several boxes contained substances considered hazardous including strychnine, arsenic based liquids, powdered acids and some unknown contents. There were some films and early video cassettes that were deteriorating due to ‘vinegar syndrome’ of the acetate film bases. There was some possibly live ammunition that would have been used for euthanasia. Various noxious substances that were leaking and causing damage were removed (according to the OH&S Act), and the collection was packed in acid free paper and plastic boxes, as they recommended.

I have had discussions with Frank Doughty, Curator, and Doug Johns, Archivist, about the best way to proceed. Melanie Elsey, the Executive Assistant, and I have been exploring several options for preserving the Collection in a form that can be accessed by the maximum number of people.

One possible option is to donate the collection to the Powerhouse Museum. They say that they could undertake to look after it at all times for the people of NSW, however they could make no guarantee of a permanent display. Another option would be to make a virtual exhibition, with photographs and write-up for the web, which would give us a worldwide audience. We could then have photographs on display at the Annual Conference.
There are several other options, but as Frank says, Bob Taylor would want it to be used. I will keep you informed on our progress, and would welcome your comments.

Anne Jackson,
Editor in Chief,
Australian Veterinary Journal
Annual Meeting AVHG Perth 26th May 2008

PROGRAM DETAILS

7.30 am    Registration

8.00 – 8.30 am    Dr Fred Wilkinson
                    Claude Roderick Toop

8.30 – 9.00 am    Dr Bill Clark
                    The Rinderpest Outbreak at Fremantle, Western Australia, in 1923.

9.00 – 9.30 am    Dr John Auty

9.30 – 10.00am    Dr Norman Adams and Dr Keith Croker
                    Clover Infertility

10.00 -10.30 am    Morning Tea

10.30 - 11.30 pm    PLENARY SESSION

11.30 – 12.00    AWARDS

12.00 -1.30 pm    Lunch
1.30 – 2.00 pm    Dr Malcolm McLennan
Lessons from History in Veterinary Education

2.00 – 2.30 pm    Dr Jeremy Allen
Lupinosis in Western Australia

2.30 – 3.15 pm    Dr John Maxwell
Responses to Rural Veterinary Practice Crises

3.15 – 3.30pm     Dr. Tom Hart
The Elusive Plegin – Traps for Beginner Historians

3.30 – 4.00 pm    Afternoon Tea

4.00 – 4.30 pm    Dr Brian Gabbedy and Dr Barry Richards
Western Australian Veterinary Cadetship Scheme

4.30 – 5.00 pm    Dr Andrew Turner
Quarantine Breakdown

5.00 – 6.00 pm    Annual Meeting of Australian Veterinary History
Special Interest Group

6.00 - 7.00 pm    Happy Hour

7.30 pm          Annual Dinner of the Australian Veterinary History
Group
Claude Roderick Toop
Dr Fred Wilkinson Perth Western Australia

Claude Roderick Toop joined the Department of Agriculture, Western Australia as a young veterinarian in 1926, as one of three in the entire state. On retirement from the Department as Chief Veterinary Officer in June 1966, after 40 years of service, there were veterinarians in all major centres due to a strong cadetship scheme. A highlight of Toop’s career was the development of veterinary services both in the Department of Agriculture and the private sector over the vast state of Western Australia. These services provided support for a strong and widely supported focus on disease eradication and containment. Major disease programs undertaken were:-

Containment of Buffalo Fly, Cattle Tick and Pleuro Pneumonia to the Kimberley region.

Strong suppression of ovine footrot and lice under eradication programs.

The first control programs for tuberculosis and brucellosis in cattle, leading the way to national eradication schemes

Eradication of swine fever.

Pullorum disease of poultry

The Rinderpest outbreak at Fremantle, Western Australia in 1923.
Dr Bill Clark, Perth, Western Australia

The rinderpest outbreak at Fremantle was the first, and only, time that Australia has suffered losses from this serious livestock disease. This talk will examine the possible origins of the infection, how it spread and how it was quickly contained. The social and political effects of the disease will also be described.
Animal Production in the Kimberley 1926-1970
Dr John Auty Melbourne Victoria

Grey explored the north Kimberley in 1839. He made observations on wildlife, horses, dogs, and clove-hoofed animals. There were abortive attempts at grazing settlement that failed. In the 1880’s settlement with sheep in the west and cattle in the east proved successful. Investigations into horse diseases were carried out in 1926. The conclusions were later found to be incorrect. In 1945 a research station was set up on the Ord River and sporadic research into cattle production commenced most of it was poorly directed. In 1960 the author commenced work and made some useful findings. The CBPP campaign brought more veterinarians into the field and a veterinary presence in the Kimberley region has continued.

History of Clover Disease
Dr Norman Adams and Dr Keith Croker Perth Western Australia

Clover disease refers to a complex of problems including dystokia, bulbo-urethral enlargement, uterine prolapse and permanent infertility that occurred in sheep grazing pastures of subterranean clover containing high levels of phyto-oestrogens. The syndrome was most prominent in Western Australia, with lesser problems in other States. It appeared in the 1940s several years after the pastures were first sown, and re-emerged in the 1960s after further widespread establishment of new clover pastures. It remained a sub-clinical problem that reduced lamb-marking rates of whole shires in Western Australia through the 1980s, but now appears to be rare.

The overall research effort would have benefited from an earlier emphasis on studies in sheep, and from better definition of the problem in the field. For example, the failure to recognize the importance of ruminal metabolism of phyto-oestrogens in the 1940s and 1950s prevented effective plant breeding programs to produce cultivars with low levels of phyto-oestrogens (toxicity) in time to avoid the second outbreak in the 1960s. The slow development of diagnostic tools for permanent infertility prevented satisfactory answers to questions such as: why was its appearance delayed for years after the pastures were first sown, why was it not observed in other areas with equally oestrogenic pastures, and is it likely to re-emerge in the future? With the benefit of hind-
sight, this paper looks back over 40 years of research in an effort to draw conclusions that may improve the focus of future research into other plant toxicities.

**The Veterinary Cadetship Scheme in Western Australia 1949 – 1976**
Brian Gabbedy and Barry Richards
Department of Agriculture and Food, Western Australia
3 Baron-Hay Court, South Perth, WA 615

“Cadetships have been used by governments throughout Australia since the 1920s as a means of obtaining staff with specific skills where direct recruitment of qualified persons was not expected to meet service requirements” (Australian Public Service Board Report 1970). In Western Australia (WA), cadetships were offered by the Department of Agriculture for agricultural science beginning in 1921. The Department of Agriculture Western Australia (DAWA) first offered cadetships in veterinary science in 1949, with the first graduate produced in 1954.

**Quarantine Breakdown**
AJ Turner  Princes Hill Vic Australia

John Gamgee laid down the principles of quarantine to prevent the spread of diseases through animal movements within and between countries more than 140 years ago. The World Organisation used these principles to develop standards for Animal Health (OIE) from the 1920’s to be applied legitimately by countries to prevent the spread of key diseases through the world trade in animals and animal products.

Despite these long-established principles, quarantine breakdowns continue to occur and examples of these in this millennium include foot-and-mouth disease in the UK in 2001 and 2007, post-weaning multi-systemic wasting disease in New Zealand in 2005, avian influenza in the UK in 2007 and equine influenza in Australia in 2007. All outbreaks were associated with similar and differing reasons for their occurrence. This paper will explore the lessons to be learnt from these experiences.
ARTICLES

Early days in the Department of Agriculture, Victoria

Dr David McQueen,
Chesterfield Support Residential Accommodation
345 Shannon Ave.,
Geelong Victoria 3220

An Investigation of Tick-Borne Diseases in Cattle in China

LL Callow and BJ Callow
39 Tait St., Tewantin Queensland 4565

The Veterinary Cadet Scheme in Western Australia 1949 – 1976

Brian Gabbedy and Barry Richards
Department of Agriculture and Food, Western Australia
3 Baron-Hay Court, South Perth, WA 615
EARLY DAYS IN THE DEPARTMENT OF AGRICULTURE, VICTORIA**

David McQueen*
Chesterfield Support Residential Accommodation
345 Shannon Ave., Newtown Geelong 3220.

Dave Wishart, George Nicol and I joined the Department around the middle of 1941. We were early products of the bonding system. Dave had all the qualities to take him to the top. George was intensely thorough. On looking back, I can see I was the immature member and a slow learner as far as Departmental responsibilities were concerned.

In those days, the Livestock Division was housed in the original building towards the end of Treasury Lane (3 Treasury Place, Melbourne). One remembers the sombre 19th century dignity of the place. By today's standards, we were a small arm of Government, but there was an austere sense of power in the old spot.

The Livestock Division lived on the third floor. In one room was the long suffering Senior Veterinary Officer (SVO), Bill Shew. Adjoining was the room for Veterinary Officers (VO’s) who could readily descend on Bill. Opposite was the domain of the Chief Veterinary Inspector (CVI) which was more imposing and in fact occupied by the tall and imposing presence of Robert J de C Talbot.

Bob Talbot was a dominating figure with a no nonsense style, but he was kind and approachable too. He used to remind us that it was an honour to be in the public service. One could mention that back in 1930 and 1932, he was well known for the thorough going manner in which Newcastle disease was eradicated in Victoria. Also I think in 1925, he and Dr Albiston of the VRI published the first account of the discovery of Johne's Disease in Victoria. Like other long-serving officers at that time, he had been amongst periodic and demanding episodes of pleuropneumonia eradication. Also, Bob loved fishing, and that reminds me of something further. It must have been in 1953, towards the end of his career, he and Dan Flynn visited Warragul in order to check up on our progress in dealing with some pleuro. I told him that the owner of one of the contact properties was OK to deal with, so long as the testing program did not interfere with his fishing. Bob immediately came to attention
and asked the question uppermost in his mind, "where does this chap go for all his fishing?"

I have sidetracked from my impressions of the early Divisional set-up. We few VOs were parked beside Bill Shew, as I mentioned earlier. Bill Lerew was serving out the last of his time there. He knew the procedure and all the routines, and cheerfully tolerated the small influx of younger members. It was a worrying time for him. He was the father of an eminent RAAF Officer who served with distinction against great odds in New Guinea early in the war, but happily survived.

There was a room for stock inspectors, for the pig and poultry experts, and a clerk or two looking after quarantine matters. There were more clerks of course in some other parts, who soon reminded us how we should deal with duty sheets and so on. There it all was intimate and quite friendly.

Further afield was the State Research Farm (SRF) at Werribee. In those days, or at least when I joined, it functioned according to old pioneering demands or so it seemed. There was a herd of Friesians and a herd of Red Polls. Bulls were sold to farmers seeking their own herd improvement. I remember that because my father in the Wimmera District kept Red Polls on a dual purpose basis, he got me to do a little inside trading and to select a few bulls for him to buy. Also, the SRF maintained poultry and recorded production results from one year to another.

Dave Wishart soon became involved with the SRF and worked very hard to introduce artificial breeding and other things.

We old timers remember with great appreciation how the VRI and its small staff functioned as the hub of our existence. It was still attached to Melbourne University. The Director, Dr Harold Albiston continued until the mid 1960’s. He was a supreme gentleman and made us very welcome when we joined. With him were just two other veterinarians, Murray Pullar and Colin Gorrie. Murray was very much the meticulous scientist, but we saw little of him for a while, because he was away on military service. Colin was a tremendous character whose hilarious good nature lives with all those who served during this period. If there were visitors during the tea break, he would apologise for his language before talking started, and then continue in his own uninhibited
manner. I developed a collaborative arrangement with Dr George Christie at the Melbourne Medical School whereby he examined fixed specimens that I had collected from various disease conditions that I had encountered in the field. One day George visited the VRI and was greeted by Colin Gorrie and Dr Albiston with them saying: "So you’re the reason we only get half specimens from McQueen." This was accompanied by uproarious laughter. When George moved to Queensland the fixed specimens that he had retained some 1000, were transferred to the Melbourne Veterinary School at Werribee.

Shirley Andrews was the biochemist at the VRI. Her views sometimes promoted good-natured political arguments. Serological testing was the province of Jim Logie. Nobody could have been more unassuming or unobtrusive, or more valuable and experienced, in the small team then tackling all the laboratory work for the State.

Another technician whom we often met was Victor Beddome. I remember how he and Colin would peer at a dead chook in the PM room. Each one would take out a two shilling piece as a bet on whether the examination would reveal coccidiosis, leucosis or whatever.

From Dr Albiston downwards, the high morale and good spirits that prevailed at the VRI, extended to the rest of us. One soon learned however that none of this substituted for responsibility towards the job. As I see it, here was the origin of the excellent field-laboratory relationship that continued after the system expanded out of recognition so to speak.

Before leaving the VRI, I can mention that a separate section functioned for milk examinations. Also at the VRI one saw how that corner of Parkville provided such a concentration of veterinary talent. There was the VRI staff under Dr Albiston, while nearby at CSIRO were such people as Dr Bull, Dr Turner and Dr Murnane, all of whom were responsible for monumental contributions.

Before he gained his BVSc, George Nicol had been a technician and worked under Dr Arthur Turner. George was versatile at photography and thoroughly at home amongst all sorts of apparatus. He often expressed great admiration for Dr Turner who had put vaccination against black disease on the map, and probed very deeply into pleuropneumonia. Dr Albiston however had made considerable progress on black disease, but generously handed over his data to Dr Turner.
Dr Albiston used to be a valued guest at VO’s meetings. When I first joined, everybody was easily accommodated in one of the usual rooms at Head Office. Stan Mountjoy at Warrnambool covered all the Western District, and continued until retirement. After some military service, Charles Pope was placed in Ballarat. Later he resigned and went into practice there. Harry Elder at Bendigo ranged right up to the Murray. Bob Grayson at Benalla was in the firing line for pleuropneumonia, which used to come down from NSW and further north. In due course he became SVO and then Chief of the Division. For a few years Noel Wellington had been ranging over the whole of Gippsland, and he became a legend for his efforts there. George Nicol eventually took over the Metropolitan area. I’m a bit vague on this point but I think his predecessor must have been Nils Sjogren. Nils later took up practice in which dairy factories provided assistance, this was a scheme that helped practitioners to get started in dairying districts.

In my early days, I owed a lot to people whom I have mentioned. I shall come to that when I say more of what I saw and did when I first jointed the Department. As well as Departmental VOs, veterinary practitioners too were few and far between. Here was a huge gap, which left stock inspectors as the most accessible sources of advice to farmers. Those I met were long serving officers who coped with a great need at that time. A big part of the early VO’s job was to foster liaison on this score.

TB testing loomed large when I started. Dave Wishart taught me. We learned about it during our courses, but it was hit and miss whether one saw it happening. There was supposed to be a system for helpful use of vacation time. In my case, I simply went home to the farm, and that was accepted. Everything was much stricter for the NSW Departmental trainees. As students, we were the subjects of transition as the veterinary course had just been extended from 4 to 5 years. When the war started however, briefly there was a move to shorten courses. Some vacations were cut back and somehow we finished in the middle instead of at the end of the last year. Also, we were in the last batch of students to miss a period at the Sydney Veterinary School farm then being organised. The single caudal fold TB test had come into use. Bill Lerew, Charles Pope and others could tell us of the older test which required skin measurements and three visits per farm. We even heard a little of the old temperature test, which required injections at night, and the taking of temperatures from early the next
morning. Bill Fleming, one of the stock inspectors, was very taken with the ophthalmic test, when the VO used to drop a bit of tuberculin into cows’ eyes as a kind of subsidiary test on top of everything else.

The goal of TB eradication was a long way off. One used to read how the United States had advanced in that direction, while in England there was supposed to be a general incidence of about 40 per cent in the dairy herds, and numerous cases of bovine TB in children.

My first view of TB testing came with the routine of checking herds supplying whole milk to Melbourne. Compulsory pasteurisation was still in the future. Travelling wasn’t such a big problem, because just north of the city, in places like Epping and Thomastown, there were the cows. The farmers were mostly small operators and true battlers. In due course I saw my first reactors, but the incidence was low. One had the advantage however of seeing the post mortems at the old City Abattoirs right under your nose so to speak at Flemington next to the Newmarket Saleyards. If I remember rightly, a stock inspector named Wilson had qualified in meat inspection and made a big contribution on the PM side. George Nicol was a quick and keen TB tester.

Dave Wishart closely observed the process, and found that the original procedure of reading tests after 3 days might miss a few reactors. Consequently, the period was extended to 4 days and remained that way. With their small increase in staff, and more envisaged, the Department began coping with TB testing of herds supplying whole milk to our larger provincial towns. I was allocated Warrnambool, Geelong, Ballarat and Bendigo. I’ll say a bit about the testing, and then go onto other aspects of my visits to those places soon after I joined the Department.

At Warrnambool, I was under the thumb of a retiring but highly experienced VO, Stan Mountjoy. He showed me and told me a lot about TB. The Warrnambool whole milk supply cows yielded about 5 per cent reactors. We were relieved that the figure wasn’t much higher, so why was that? The reason here was the TB background of the Western District. I used to go around with Stan, and meet up with stock inspectors such as Arthur Bethune, Phil Crutchfield or Peter Hyland. You may know about a Peter Hyland in the Department, but it was his father whom I encountered at that time. We then got stuck into clinical examination pure and simple, because TB over the region still demanded it.
Milkers were put through the bails as they would have been in TB testing. Then, we palpated accessible lymph nodes for enlargement, which included the prescapular, precrural, supramammary, parotid, submaxillary and retropharyngeal nodes. The last named sometimes led to squashed fingers in the bail. One was sensitive to cows showing symptoms of snoring. Naturally, nasal granuloma had to be eliminated, and at that time this complaint started to arouse more attention than it had in the past.

Well, from time to time we found what we were looking for. The fair dinkum coughers with lung involvement were infrequent, presumably as the result of somebody’s good work earlier. Stan and his stock inspectors were good at auscultation. I don’t remember stethoscopes being used. One pushed one’s ear into the cows chest and did it that way.

There were far more whole milk suppliers to be tested in Ballarat, Bendigo and Geelong. Memory has it that the initial overall tests yielded about 2% reactors, but a few incidents proved memorable. I must tell you what happened at Ballarat.

At Ballarat, there were small milk suppliers, right down to the lady who kept just one cow. Standing out prominently amongst these groups was an outfit right in Sebastopol, which really adjoins Ballarat. The whole set up appeared to be modern and inviting to lots of customers who put out billies for one or other of the milkmen to fill up every morning. Suspecting nothing, I arrived to read tests on 45 cows with the dairy inspector, Charlie Pascall, who was giving me transport. Imagine the shock when 23 reactors came up. It was a terrible blow to this perceptive and painstaking owner.

Back at the Ballarat office people were ready to lynch me. Charles Pope got his milk from the source in question. So too did Arthur Helms, the stock inspector, and one of the dairy supervisors. Charlie Pascall was spared the view of all the TB associated with his milk, because he dealt elsewhere. Wherever I went I heard stories of the unfortunate situation.

This brings me to how I went around these places. During the war, there was petrol rationing and the purchase of replacement vehicles was very tight. Back in Melbourne, I did say earlier that travelling was no problem as far as TB testing was concerned. I really meant that distances were not great. Otherwise, there were a few departmental vehicles struggling for survival so to speak. When I got to go to other places I fell back on whoever could help.

Dairy supervisors who used their own cars on mileage allowance did a lot in
that direction, and sometimes-stock inspectors were my chauffeurs. With
gratitude I remember the willing cooperation and hospitality I received that
way. Keith Fisher, a dairy supervisor at Geelong, was a special friend. He was a
modest quietly spoken chap who was fighting a constant battle against poor
health. I’ll never forget the penetrating manner in which he explained the
background of the farms we visited and the problems he encountered in
making his changes conform to accepted levels of hygiene performance etc.
With plenty of direct supply of unpasteurised milk from farm to customers, he
could tell me who did and who didn’t keep meeting the minimum bacterio-
logical count of 20,000 in the testing routine. He and other dairy supervisors
always assured the farmers that it was well understood that cows made a mess
when they were tested. As he shovelled away, I remember one cheerful bloke
saying to us that he would have to get busy or the men wouldn’t come again.
We used to strike farms where yarding and holding the cattle presented plenty
of difficulty. On one occasion Harry Elder came out for the trip, bringing with
him his son who went to Wesley College and one of his friends who was the
champion mile runner of the school. A heifer took off and headed for the open
spaces. None of us succeeded in getting it back, but I do remember how this
mile runner put up a great performance.

On a small farm at Geelong, the owner set out to slip a rope over the horns of
a young Jersey bull that we wanted to test, to the horror of Keith Fisher and
me, the brute suddenly began to pitch into him. I’m eternally grateful for the
fact that we were quickly able to scare the bull away before any real harm was
done. The man’s son was home on leave from RAAF training, wearing his
newly acquired set of wings, as thousands of other young chaps did during the
war. I’m very glad that he didn’t come home to a family disaster.

In those days around milking time one heard the chug of old farm engines
rather than the whirr of electric motors. Just to be different though, a farmer
nearby to Geelong operated a steam engine. He would emerge from his
cowshed looking like a ship’s stoker. Keith Fisher tolerated him, and I think
found the situation a bit amusing.

During the early phase of TB testing, I did get to the abattoirs for the PM’s on
reactors. Meat inspectors too earned my gratitude for their willing cooperation.
I discovered that popliteal lymph nodes were not subjected to routine
examination. As you know, these things are buried deep between muscles high
up in the hind leg. Anyhow, I took to digging them out and on two occasions,
the move paid off. Perhaps somebody at our end of the food chain was spared
the sight of a tuberculous popliteal while enjoying a choice roast of beef.
After some TB testing around Melbourne, I was given a good chance to see
how Stan Mountjoy and Harry Elder worked before I began testing in their
regions. For a raw departmental recruit, this was a marvellous experience.
Mindful of my own deficiencies, in a sense it was better than I deserved.
Finding accommodation was quite different from what it would be today. I
took to boarding houses in the main centres. These places varied considerably,
but their managers coped very well with war-time rationing and other
problems. Indeed, this phase provided happy memories and some special
moments. On one occasion, at Warrnambool, I think the power must have
been off. A helpful girl realised that a chap in a nearby room was looking for
something so she strode in with her torch. Shining it on the bed, she caught
the bloke there bottom upwards groping for his trousers on the floor.
I soon discovered that isolated country VOIs had to undertake a great deal of
travelling. Accompanying Stan Mountjoy was great sport and very instructive.
There were PMs and farmers’ problems on the agenda and liaison with stock
inspectors. At Colac, Camperdown etc. we spent our nights at hotels, and here
again I think those providers coped well with their difficulties. Stan was a
stickler for detail, and he told me to bring shaving water back to the bedroom
and never to hog the wash basin in the bathroom.
Earlier, I mentioned that some Departmental cars were fitted with gas
producers. I saw how Stan grappled with the one he had. Coke smouldered in
a large, unwieldy container fastened onto the back of the car. Accomplished
mechanics installed the necessary connections. That way, carbon monoxide
found its way to an engine that doubtless believed it was entitled to petrol. One
had to start off on petrol, and switch over to the other system when the going
was straightforward. Stan and his fellow sufferers had to clean these things out,
stoke them up and somehow make them perform satisfactorily. He and others
said that they could keep profanity under reasonable control until they were
confronted with gas producers.
We had no office in Warrnambool, although there were surprising good ones
in Bendigo and Ballarat, and quite a good one at Geelong. One travelled with
a variety of bits and pieces. The old specimen boxes with tins inside were
standard items, along with voucher books for dispatch at railway stations.
Petrol rationing involved the appropriate authorities and tickets. Overnight
stops focussed attention of expense claims etc. I should have learned Departmental procedure better than I ever did. Vouchers for rail travel were important too.

On gaining my first view of field-work I know now that I had it all wrong. I was carried away with Vet School teaching, but dead scared of confrontation with a great many things that I had never seen. Stan entrusted me with a PM on my own, and it was a great relief to find blackleg as the text book described. One learned from Stan and all his experienced stock inspectors. By a twist of fate, I managed to forge a good relationship with Jim Fleming at Geelong. Jim was a large and formidable character who clearly had doubts about a young and obviously inexperienced VO. When he found me getting a blood sample from a presumably pneumonic cow, he wanted to know why. I told him that it was a Head Office order, designed to alert us to pleuropneumonia. Drawing on his own long experience, he lectured me on the symptoms of pleuro etc, and how these differed from those in the cow I was dealing with. (Later though, I should get to the clinical vagaries of pleuropneumonia). It’s nice to record though that Jim was a fair-minded bloke. In his little single-seater car he took me out to a farm where calves were dying. By that time, I’m sure Stan Mountjoy must have shown me some bracken poisoning. At any rate, it came up clearly on PM as it generally does. Jim came to attention, because he had never seen bracken poisoning. The calves were not more than about 3 months old, and we saw something that really stayed with me. The animals were addicted, going straight to the fresh young fronds emerging from the ground, and biting them off. Jim said he was glad he saw the incident, so perchance it was a small victory for staff relationships.

Stan Mountjoy was a short, self-effacing man, who very quietly gave out his long experience. He would never speak in public. Charles Pope was a different and more outgoing character. Coming now to Bendigo, I was privileged to meet up with two outstanding officers, VO Harry Elder and stock inspector Vin Black. Harry had qualified in pharmacy as well as Vet Science. In a very matter of fact way, he exemplified the highest level of ideas and principle pertaining to the job. He had a great sense of humour, but that departed from him on the day a disaffected owner accused us of taking bribes in connection with TB testing.

After a while, I found that Harry held two very firm convictions. Firstly, he
considered that our paramount duty ought to be to help the farmer. He came from a farming family in the Mallee, where the famous words about life not being easy were certainly true. Secondly, he believed that the farmers' best friend was Dr Albiston, and more should be done to direct their thinking along those lines. Whatever the hour or however late one got back for tea, he would continue talking to any farmer who wanted to talk to him.

Sheep problems figured largely on our field visits. Harry matched his sound advice to farmers with helpful PM hints for me. I remember hard seasonal conditions being associated with pregnancy toxaemia (PT). Later on, at Warragul, I found the contrasting situation, with the overfat ewes becoming the chief victims. Harry was convinced that something with the features of PT might follow lambing if the worst conditions prevailed. He showed me one or two cases supporting this idea.

Harry came along for some of the TB testing. On one occasion, when a dairy supervisor named Morgan provided transport, he came just the same. I'm glad the extra man was there. We were grappling with some heifers in a yard, when Harry slipped over and one of the animals galloped over the top of him. He took a severe knock, but I think our first aid was just good enough to minimise distress in getting him back home. He told his alarmed wife not to jump to extreme conclusions. With a couple of broken ribs though, Harry was out of action for a while.

Harry contributed so much as a wide-ranging VO, yet not long after I was with him in Bendigo, the system struck. The Dairying Division wanted a veterinary officer, because increased TB testing and compulsory pasteurisation were on the way. One can only imagine that going into administration caused him misgivings. He simply remarked to me though that if such a change were needed, and he was selected, then a person should comply.

Like Harry, stock inspector Vin Black was a communicator who readily established rapport on all sides. He had a fine crown of white hair, which enters into a little story illustrating his great gift of repartee. A farmer approached him saying "I believe you're Mr Black, but you're not very black, are you"? Immediately Vin replied "Look, if I'd been blessed with the name of Ramsbottom, would you expect me to live up to that"? Meeting Vin was good for morale, but if anybody tried to put something over him, it was look out!

In his work, Vin took the mastitis problem very much to heart. What he did provides an unusual piece of Departmental history. I'll get to that,
but a few words about mastitis in those days wouldn’t go amiss. By today’s standards, we muddled along. True, a certain amount was known. The VRI could test milk samples. The CSIRO, or the CSIR as it was called earlier, under Dr Bull, had conducted a comprehensive investigation on the bacteriological side. People knew about penicillin, and how in America it was being produced in quantity. The Director of the CSL, a veterinarian called Dr Bazely, had started production in Australia. During the war though, there was no penicillin for civilian use. Only after the war, under the control of an outstanding character, Dr Dan Murnane of CSIRO, was penicillin and its proper use established for the farmer. Dan went on with mastitis, looking at management and prevention. It all took time though before penicillin and other antibiotics arrived in tubes, and research and monitoring made possible the comprehensive system of mastitis control that we got later. Things were so different in Vin Black’s day.

What Vin did was to front up to the milker’s market at Bendigo saleyards and pass or fail them on mastitis. As Harry pointed out to me, this was Vin’s purely personal project, carrying no Departmental endorsement. At the local level though, people accepted it. Doubtless Vin contributed keen observation and experience.

While I was at Bendigo, Vin’s son Frank was away on military service. Later, he became a second generation stock inspector and continued at Bendigo. A few cases which I saw at Bendigo and other places could be mentioned. I think Harry must have discussed with me the possibility of cyanide poisoning from sugar gum trees on the farm. At any rate, I was entrusted to go out on my own to one of those incidents, and for once I wasn’t bewildered. The farmer had lopped some sugar gums, and cattle had taken to the fallen foliage with sudden deaths following. Sugar gums are not native to Victoria, so it isn’t a good idea to introduce them onto farms for ornament or shelter.

I was raw and inexperienced, as I mentioned earlier. Again, I was entrusted to go out on my own to a farm at Kyabram and for some time I pondered the question of why the sheep were dying. It was so obvious that I should have grasped the point sooner than I did. The sheep were confined to the poorest of grazing on old stubble.

It was near Bendigo that I got to one of the few examples of enterotoxaemia (ET) in calves that ever came my way. By that, I mean confirmed cases, and here’s how it happened. Earlier, I mentioned my transport position. Well,
to help out, I bought a bike. As far as I remember, war-time restrictions presented no obstacle. That way, I thought I could follow up on some of the cases which came up. Another reason was the war-time situation, which I shall say more about later on.

For the moment, I shall just mention that farmers were hard pressed for labour. I know that well because my father in the Wimmera district was affected when my brother joined the RAAF. So, when people were urged to go out during week ends to help farmers, I got my bike to make that possible. A certain farmer wanted somebody to dig post holes, so I got stuck into that. Late in the day, a calf, I think recently weaned, was seen spinning around in a circle. The owner said that in the past, several similar cases had occurred, dying after presenting such symptoms for an appreciable time. I’m sure he never reported any of these.

Memory fails concerning some of the details here. Probably I pedalled back to my boarding house for a knife etc. In those days, you scrounged for things like vegemite jars and so on for specimen requirements. I was hell-bent on getting something for ET confirmation. Whether or not I weighed up differential diagnosis and lead poisoning I don’t remember. At any rate, it was dark by the time I took to collecting bowel contents for the VRI, and I have no recollection of observing PM lesions.

At that time, laboratory diagnosis of ET was a matter of adding something to the bowel contents - with those of terminal small bowel and large bowel separated, and then filtering the stuff. The filtrate was injected into the tail vein of a mouse, which died pretty soon if ET were to be confirmed. I had been given some time at the VRI, and saw Colin Gorrie painstakingly carry out this procedure on material from sheep and chiefly lambs. As I remember, a positive result was good, but a negative result might leave one wondering. Later, as I know from Regional Veterinary Laboratory (RVL) association, the method changed entirely. One scrutinised histopathology sections of brain, looking for protein staining of fluid hat had leaked from capillaries. I had a look at a few such sections at the Bairnsdale RVL but wasn’t experienced like Ian McCausland in finding this kind of evidence.

VRI confirmed ET in the Bendigo calf. I don’t think there were standard recommendations for vaccination of calves at that time, but the VRI offered some suggestions that were passed onto the owner.

One or two incidents at Ballarat could be mentioned. Here, there was a
veterinary practitioner Dick Dowling. Like Harry Elder, he was also a pharmacist. His chemist shop loomed larger than his vet practice, but he talked to me and I was most grateful for his help and hospitality. He asked me about a bitch with spasms on one occasion, and I guessed about puerperal eclampsia. The Vet School piece concerning calcium glauconite and morphine seemed to work.

Late in the day, he took me to a cow mortality. I tried another guess salmonellosis - because the animals were drinking from a stagnant water hole. VRI confirmed this.

There was a glorious informality about the job in those days. In my overalls and carrying knife, specimen box etc I got back to the dimly lit boarding house. A lady emerged from a room, caught sight of me, and bolted to her own room for all she was worth. I heard the large bolt on the inside of her door slam as she pressed it home. Next day, she apologised for having the wrong idea about me.

Dick was a marvellous story teller. He was TB testing, and the bull was in the shed, snorting at the owner who swore back at the beast. Next thing, the bull chased the owner to the far wall of the long shed. Dick said he didn’t know how the bloke did it, but he ran up the wall like a fly.

*Dave received a Victorian Government Veterinary Scholarship and graduated from the Sydney Veterinary School in 1941 along with David Wishart, George Nicol, Virginia Osborne and others. He joined the Victorian Department of Agriculture in 1941 and retired in 1981.

AN INVESTIGATION OF TICK-BORNE DISEASES IN CATTLE IN CHINA

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Introduction

The tick fever parasites of cattle of concern in Australia are Babesia bovis (B.argentina until 1976), Babesia bigemina and Anaplasma marginale. They are all transmitted by the ‘cattle tick’ Boophilus microplus. My group’s work on tick fever vaccine’ was built on the notable efforts of CJ Pound (the 1890s) and John Legg (the 1930s). During the last 43 years, over 35,000,000 doses of vaccine (mainly B.bovis) have been prepared and distributed from the Queensland Department of Primary Industries (QDPI) laboratory at Wacol near Brisbane.

Boophilus ticks (microplus and others) have a worldwide distribution, occurring in all continents except the polar lands. Climate (not too dry and not too cold) determine where B.microplus may become established. Favourable conditions for the ticks (and usually the three blood parasites) exist in eastern and northern parts of Queensland, and in the northern parts of the Northern Territory and Western Australia. The history of the arrival from Asia, spread, establishment and stabilisation of distribution of B.microplus is well documented by Beverley Angus. About 25% of Australia is considered enzootic for cattle ticks and tick fever.

A reminder on aspects of the epidemiology might enhance understanding of the diseases we studied in China. First, the circumstances leading too clinical tick fever:
(1) If Boophilus ticks spread to previously uninfected areas where cattle have no immunity.
(2) When ‘clean’ cattle, unprotected by an effective vaccine, are taken to areas where Boophilus ticks are well established.
(3) In cattle born in enzootic areas (ticks, blood parasites and latently infected
cattle usually immune all present together), but where tick numbers can periodically be at relatively low levels. For (1) and (2), losses can be spectacularly high. For (3), the pattern tends to be seasonal (summer – autumn outbreaks), with sickness and death in perhaps only 5 to 10% of the population, and mainly in 1 to 3 year olds. While sporadic losses occur outside this age range, these are more likely to affect older cattle. Resistance in young animals (not completely understood) is the key to defining the pattern of tick fever in enzootic areas. Mahoney and Ross found a connection between numbers of ticks present and the likelihood that they would transmit babesias. With low numbers, cattle miss out on immunizing, natural infections during their ‘safe’ period but, at older ages, when eventually encountering infected ticks, can have a clinical attack. It has become normal practice to vaccinate cattle before they age into susceptibility. Today one inoculation is considered to be enough.

The China mission and how it came about
The long history of trying to upgrade cattle herds in colonial and then developing countries (often in the tropics) has been marked by spectacular losses following the introduction of European cattle from tick free areas. For at least 30 years, well-publicised warnings have been provided as well as information on the need for vaccination, and how it can be managed. Sadly, this has sometimes been to no avail despite the high monetary cost of failures. When the problem in China occurred in 1984, I had completed 11 missions related to difficulties with bovine tick fever in developing countries, attended at least as many international meetings on the topic, and published recommendations on how the problems might be avoided. The Yunnan experience is selected as a story to be told because it is a typical example of what can go wrong.

Briefly, in August 1984, nearly 90 Murray Grey cattle were taken from tick free southern Australia for use in a pasture and livestock development project near Kunming in Yunnan Province. Severe disease broke out about 2 weeks after the cattle arrived, suggesting they had encountered Boophilus ticks, and that the ticks had transmitted virulent \textit{B. bovis} infections. There were deaths, other sick cattle recovering after specific drug treatment. Unfortunately, no blood films
for microscopical examination were taken, which would have given absolute confirmation that *B. bovis* was the main disease agent. A serious deficiency in the operation was that the cattle had not been vaccinated against *B. bovis* prior to or on their arrival in China. Chinese animal health authorities had been reluctant to vaccinate with a living vaccine from another country (a not uncommon response) but eventually, while the cattle were in quarantine, sanctioned the use of a *B. bigemina* vaccine. (*B. bigemina* was found to be prevalent in Yunnan, but, over the last few decades, this agent has repeatedly been shown not to be a major pathogen.) Because small numbers of animals continued to become sick after the August 1984 infections, the Murray Greys were given Australian *B. bovis* and more *B. bigemina* vaccine in April 1985. The causes of the ongoing sickness were not confirmed, but may have been the more slowly developing anaplasmosis or the effects of excessively heavy tick burdens. Arising out of this uncertainty and confusion, a visit by an Australian specialist to clarify matters was requested. Whether or not the Murray Greys had brought in a new disease was of particular concern to the Chinese authorities, a question raised on previous occasions in similar situations elsewhere in the world.

I reluctantly accepted a consultancy lasting for 3 weeks in July 1985; my wife (Barbara) for whom laboratory employment preceded domestic toil accompanied me; between us, we provided answers and made recommendations which were presented in our report entitled ‘Observations on tick-borne diseases in Yunnan Province’, a copy of which is held by AusAID. In this memoir, I will summarise our most relevant observations and conclusions and report some pleasant and endearing social experiences.

**Before we got started**

*In Australia*

We were confident that the Australian cattle had not taken diseases to China, but it was important to confirm that the infections had been lying in wait for susceptible cattle and then convince Chinese colleagues that this was so. Evidence would be:

- finding the same ticks in Southern China as occur in northern Australia;
- seeing blood parasites in local (Chinese) cattle, particularly those not in contact with the Australian imports;
- finding antibodies against *B. bovis*, *B. bigemina* and *A. marginale* in sera
from native cattle confirming that these agents were enzootic.
The division of labour was: Barbara, tick identification, setting up tests of sera for antibodies, training of Chinese counterparts, diplomacy; myself, organising the investigations, collection of material from Chinese cattle, gathering histories, reading antibody tests, training and diplomacy. Barbara refreshed her laboratory training with specialists at the QDPI laboratory at Wacol and at the Animal Research Institute, Yeerongpilly.
We packed parasite demonstration slides, reagents and other materials for use in the antibody tests (indirect fluorescence), the most basic being antigen from Australian parasites to test against Chinese sera, and literature on the subject to leave with Chinese scientists.

Arriving In China
Flying west from Hong Kong in an ancient Russian airliner (a Tupalev) was eventful. Our CAAC flight almost landed in Kunming, but, seeing water of unknown depth on the runway (there had just been a storm), the pilot pulled the plane up, turned around and flew east for an hour to land in Nanning, just north of the Vietnam border. Orange juice and watermelon were served there, and we were treated to an airshow of MIG fighters practising take offs and landings for over an hour. Then we flew back to Kunming and landed. (The flight back to Hong Kong 3 weeks later was also an adventure).

The first few days in Kunming
We didn’t see the laboratory or meet our counterparts for a day or two, the time being spent in conference with senior Chinese officials. The hours rolled by as we sat around the walls of a large room, being sustained by a continuous supply of green tea while the problem was debated. The issue was the expectation that we would show the Chinese how to make vaccine (impossible in 3 weeks and probably not necessary), presumably to be used if the ('introduced') disease spread to Chinese cattle. Masterly advocacy and diplomacy by Ted Campion, the Australian Aid project leader saved the day, and we were allowed to stay, but it was tough and go.

Working arrangements
We settled into a weekly routine of six eight hour days (8 – 12am, lunch, 2 – 6pm) interspersed with four 15 minute walks between the laboratory (at the
General Veterinary Diagnostic Centre) and the Green Lake Hotel where we stayed (returning for lunch each day). Barbara worked mainly with Mr Song Xielen on laboratory procedures and I with Dr Li Songbai on field issues including collection of material for study. I read the antibody tests set up by Barbara and Mr Song; Dr Li performed all procedures at least once. Both became very competent and showed enthusiasm. The very personable Zhang Wunli, an eminent scholar and musician delegated to performing a mundane duty, was with us most of the time as translator, reading ‘Brideshead Revisited’ in English when his help wasn’t required. Mr Song in his ‘down’ time, translated scientific texts we had brought into Chinese. A relaxed, congenial atmosphere developed.

After a few days, we were embarrassed to find that our staying in the laboratory after noon finishing off work was inconveniencing our counterparts who did not complain. We discovered that lunch was served in their communal dining room sharp at 12 noon - they waited for us to leave so the laboratory could be locked, and may have missed out on their meals. Trust developed, they went to their lunch on time, and we left for ours at our convenience, closing the laboratory door as we went.

Trips outside the laboratory were to the project site at nearby Xiaoshao for 2 days and to meet and consult about the local tick occurrence with scientists at other institutions in Kunming. Although they were not in pristine condition, no cattle seen by us appeared obviously sick. This included the Murray Greys, other exotics (Friesians) and in the indigenous Chinese yellow breed. But we saw cattle with damage to skin and hair coat, from current or recent infestations with large numbers of Boophilus ticks.

Results

It took one week to confirm that babesia parasites and anaplasms were prevalent around Kunming and probably much further afield. It took another two weeks to formulate a convincing case that tick borne infections were well-established in southwestern China before the Murray Greys arrived. We found small numbers of all three species of parasites in the blood of tick-infested cattle (which weren’t sick), probably being pumped in continuously during exposure to large numbers of ticks. Well-developed immunity would have
prevented parasite multiplication to a disease producing level. All 65 indigenous cattle from four different locations were strongly positive to the three antibody tests applied. This meant that they had survived attacks early in life giving them their immunity. This is a sign of high environmental prevalence of infection, as explained earlier, beneficial when exposed cattle are young, but dangerous in more mature cattle being challenged for the first time, for example, the Murray Greys. Fortunately drugs had been available to treat them when the outbreak occurred.

The tick survey also supported our belief that the diseases (babesiosis and anaplasmosis) were enzootic. A total of 575 ticks were collected at four sites between 23.5°N and 26°N over a period of several months before and at the time of our visit, and all but one were Boophilus. The exception was a haemaphysalis tick – not a notable vector of disease in Asia. So it was confirmed that the Chinese disease situation was identical with that occurring in many regions including Australia. We ensured Dr Li and Mr Song did a lot of testing and saw for themselves the situation with ticks and tick fever in the areas sampled.

Living in and enjoying Kunming
We were comfortable and well fed at the Green Lake Hotel that was rapidly being westernized at the time of our visit. The foyer had received its marble features, big lights and large glass doors just before we arrived. Our room was Australian three star standard – it had TV, and we were able to watch the youthful Boris Becker win his first Wimbledon. The hotel had pleasant surroundings – a park with beautiful flowers and a lake nearby, and paved areas outside the front door where each morning venerable Chinese indulged in tai chi. Coming home in the evening, we would proceed to the first floor to buy our excellent beer (Tsintao) and then up to the next level to our room. Dinner (and the other meals) consisted of numerous vegetable dishes, one or two meats (pork), rice and soup – just ordered as the ‘set meal’. One request for ‘sweet and sour pork’ saw us with a plate of unappetising dry sliced pork, so we continued to ask for ‘set menu’! All in all very acceptable, although after a week, we decided we would each have a steak when we transitted through Hong Kong on our way home. (not to be – plane trouble). After dinner, fairly early to bed, although sometimes there was report writing to do and towards the end, a
seminar to prepare. Sometimes we were woken early by the sound of activities outside our window. Looking out, we observed bamboo scaffolding being put together for the next building project. These flimsy structures quickly towered above us. Other activities included sight seeing, for example, the zoo with its pandas, the Stone Forest, visits to an ethnic community and to several temples near Kunming. Our walk to the lab took us past one and two room residences, communal bathroom/toilet facilities and a central kitchen for the locals. We would see people with a pyramid of 2 or 3 saucepans returning home to eat after collecting the meal from these kitchens. We walked in the streets a couple of times, ‘eating out’ in tiny cafes where great food and beer were available for minimal expenditure. One night expat friends took us to a crowded tiny restaurant where the washing up was being done in a big dish in the gutter (next to a parked Mercedes). There was a picture of Chou en Li on the wall and script saying that the great man ‘ate here’. Walking in crowded streets we were objects of interest; on one occasion I dropped a lens hood from our camera; not noticed until, preceded by a tap on the arm, the object was returned to us by an observant (and considerate) citizen. Empty soft drink bottles given to children for them to collect deposits resulted in coins being pressed in our hands a little later. There was a prevailing atmosphere of courtesy and kindness.

Our intellectual interpreter, Zhang Wúnli arranged for us to go to a concert that was an enjoyable cultural experience. Song and Li invited us to a party where we were surprised to find modern dancing and young persons in bright and fashionable clothes. It was evident that in 1985 the human spirit was starting to push itself out from a drab local scene, and there was fun to be had in China. Zhang had been a victim of the ‘Cultural Revolution’ brought down to size by being sent to work for two years in a tobacco factory. Accompanying us in the field, Zhang demonstrated his sense of fun by killing ticks fallen on the ground from the cattle, by ‘heat treating’ them with a magnifying glass. When I gave the obligatory seminar on ticks and tick borne diseases, Zhang stood with me for its 3½ hour duration, translating my talk sentence by sentence. Having given many talks of varying quality, I think I am sensitive to how my words are received (on one occasion, a mini skirted fourth year veterinary student sat in the front row and knitted throughout a lecture!).
For the full period of my China seminar, there was no obvious lapse in attention from any of the 30 – 40 members of our audience – I can only think that Zhang not only accurately communicated my information, but did so in poetic or musical ways! Intelligent questions asked at the end gave reassurance.

At the end of the 3 weeks, Barbara and I were treated to an 11 course dinner by the stern bureaucrats with whom we met shortly after our arrival and who questioned our right to stay in China. I handled mai tai toasts better than the slippery quail's eggs with chopsticks. Our main host sat on my left at the big round table and, using his chopsticks, transferred titbits from his plate to my mouth. Barbara was on my right and fended for herself.

When we left, there were emotional moments – Mr Song wept when it was time to say goodbye to Barbara. We left with positive feelings about China – through our eyes a lot had been achieved during Chairman Mao’s reign. Perhaps Kunming and Yunnan Province were favoured by resources, climate and demography, and the society where we found ourselves may have escaped difficulties being experienced elsewhere in the country. Where we were, people had adequate shelter and food – power to their homes – and despite the congestion a reasonable clean environment (except the toilets!).

The flight to Hong Kong was not without incident. We boarded a Boeing 727 but disembarked shortly after while engineers worked on a problem. Later we flew but diverted to Guangzhou (Canton) where the plane sat and was worked on again. Another 727 arrived, which we boarded but again had to get off and wait. Eventually, the first aircraft was fixed. We boarded again and flew with some trepidation to Hong Kong just in time to catch our flight to Australia. The adventure finished with a routine trip to Brisbane on QANTAS. Looking back, I believe we were in China at a good time (life seems to proceed in the fast lane there now), and I am grateful that Barbara insisted that I accept the offered consultancy and that she would accompany me.
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THE VETERINARY CADETSHIP SCHEME IN WESTERN AUSTRALIA 1949 – 1976

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“Cadetships have been used by governments throughout Australia since the 1920s as a means of obtaining staff with specific skills where direct recruitment of qualified persons was not expected to meet service requirements” (Australian Public Service Board Report 1970). In Western Australia (WA), cadetships were offered by the Department of Agriculture for agricultural science beginning in 1921. Cadetships in veterinary science were first offered by the Department of Agriculture Western Australia (DAWA) in 1949, with the first graduate produced in 1954.

Veterinary cadetships were offered, through the DAWA, to males between the ages of 16 and 21 years who had successfully completed the secondary school Leaving Certificate (year 12), subject to an interview. The cadetships were generally for five years, the first year being taken at the University of Western Australia in the Science Faculty, and the subsequent four years at the Queensland, Sydney or Melbourne University veterinary schools. A small number of cadetships were awarded to students who had completed the first or second year of university study.

The scheme offered candidates a weekly sustenance allowance in their first year and a living allowance for the remaining 4 years, paid each term. The scheme also paid university enrolment and tuition fees and provided annual return airfares from the interstate university attended. Additionally, the DAWA provided employment for all cadets during the university vacation periods for the first year and for long (summer) vacations in subsequent years. When awarded the cadetship, the candidate agreed to work for the Department after graduation for the same number of years provided by the cadetship support (usually five). Failure to meet this agreement (the ‘bond’) required the graduate to repay the DAWA an amount that varied from a predetermined lump sum in the early years of the scheme, to the total paid in sustenance allowance and air fares, in the later years of the scheme.

The first veterinary cadets graduated in 1954 and the last in 1976. Statistical summaries are presented in Tables 1 and 2. The majority completed their
studies at the University of Queensland, which provided guaranteed places for WA cadets. This arrangement ceased in 1972. Of the cadets who completed their training, 56 graduated from the University of Queensland, 4 from Sydney University and 3 from the University of Melbourne. During the life of the scheme there was a steady improvement in the proportion graduating but a reduction in graduates retained in Departmental service (Table 2). These data indicate a significant increase in graduation rate (56% to 79%), and a reduction in the proportion completing their service agreement (78% to 62%), between the first and last periods

Table 1. Summary Data

88 cadetships were granted between 1949 and 1973.

23 cadets failed to graduate, the majority of these failing to pass the first year.
2 abandoned the scheme but continued their studies through to graduation
63 completed the course

Following Graduation:

20 did not complete their service agreement. Of these, 4 served 4 years of their ‘bond’ and 6 served 3 years. One graduate subsequently rejoined the Department and 10 remained in private practice in WA.

43 graduates fulfilled their service agreement and 19 of them remained with the DAWA for the majority of their careers. Twenty four left after serving their mandatory service ‘bond’ and of these:

8 went in to private practice in WA,
3 joined tertiary institutions,
9 were employed elsewhere in the veterinary industry, and
4 were lost to follow-up

While employed at the Department:

4 were appointed as Chief Veterinary Officer
2 were appointed as Chief Veterinary Pathologist
2 became Executive Directors of the Department
17 obtained higher degrees (including 6 PhDs)
3 obtained PhDs after leaving the Department

Other roles:
8 former cadets became President of the AVA (WA Division)
2 former cadets became Dean of the Murdoch University Veterinary School
1 former cadet became Vice Chancellor of Murdoch University
1 former cadet became assistant Auditor General for WA

Table 2. A comparison of the success rate of the cadetship scheme over time
(eight year segments)

<table>
<thead>
<tr>
<th>Period</th>
<th>1949-56</th>
<th>1957-64</th>
<th>1965-73*</th>
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<tbody>
<tr>
<td>Number of cadetships granted</td>
<td>16</td>
<td>29</td>
<td>43</td>
</tr>
<tr>
<td>Number of cadets who graduated</td>
<td>9 (56%)</td>
<td>20 (69%)</td>
<td>34 (79%)</td>
</tr>
<tr>
<td>Number of graduates who completed their service agreement</td>
<td>7 (78%)</td>
<td>15 (75%)</td>
<td>21 (62%)</td>
</tr>
</tbody>
</table>

* No cadetships were awarded in 1972.

Discussion
The WA Veterinary Cadetship Scheme was instituted to service the veterinary needs of the WA livestock industries during expansion of the grazing industries in the south west and Kimberley in the 1940s, 1950s and 1960s (Table 3). Until 1968 when the Melbourne Veterinary School resumed operations, the only Australian veterinary schools were situated in Sydney and Brisbane and were relatively unavailable to Western Australians. When the first veterinary cadet graduated in 1954 there were less than 20 private veterinary practitioners in WA and only 9 veterinarians were employed by the DAWA.
The veterinary cadetship scheme in WA provided a steady source of veterinary graduates to the DAWA such that by 1966, 13 of 22 (59%) Departmental veterinarians had come through the cadetship scheme. By 1976, when the last cadets graduated, those numbers had grown to 42 of 55 (77%).

The scheme, in the opinion of the authors, was highly successful in not only providing an essential service to the livestock industries, but in encouraging a number of young men to enter the veterinary profession who would not otherwise have had the opportunity. Veterinary graduates originating from the scheme made many valuable contributions to the sustainability of the grazing livestock industries of WA, across a broad range of research, disease control and disease eradication programs. During these years lupinosis was brought under control, bovine pleuropneumonia, bovine brucellosis and bovine tuberculosis were eradicated and ovine footrot was contained. There is little doubt that any benefit:cost analysis would strongly support the investment made over the years of the scheme.

**Table 3. Western Australian human and livestock populations (,000’s) spanning the years of the veterinary cadetship scheme**

<table>
<thead>
<tr>
<th>Year</th>
<th>1940</th>
<th>1950</th>
<th>1960</th>
<th>1970</th>
<th>1980</th>
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<tbody>
<tr>
<td>Human</td>
<td>474</td>
<td>573</td>
<td>731</td>
<td>1,014</td>
<td>1,277</td>
</tr>
<tr>
<td>Horses</td>
<td>130</td>
<td>55</td>
<td>40</td>
<td>29</td>
<td>39</td>
</tr>
<tr>
<td>Cattle</td>
<td>789</td>
<td>841</td>
<td>1,100</td>
<td>1,781</td>
<td>2,033</td>
</tr>
<tr>
<td>Sheep</td>
<td>9,516</td>
<td>11,362</td>
<td>17,151</td>
<td>34,709</td>
<td>30,764</td>
</tr>
<tr>
<td>Pigs</td>
<td>218</td>
<td>90</td>
<td>176</td>
<td>278</td>
<td>289</td>
</tr>
</tbody>
</table>

(Source: WA Year Book 1982)
References


Australian Public Service Board Report 1970. Study assistance in the Commonwealth Service; related statistics of cadetship and study assistance schemes.

Records of the Western Australian Department of Agriculture were used extensively in the compilation of data.

Records of the JS Battye Library, Perth, Western Australia were also accessed, principally the Western Australian Public Service Lists, published annually.
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