

AN INTERVIEW WITH DR JOHN RADCLIFFE CONDUCTED BY BERNARD O'NEIL AT THE WAITE INSTITUTE, ADELAIDE, SOUTH AUSTRALIA, ON THE 20TH OF FEBRUARY 2004, IN REGARDS TO THE HISTORY OF THE DEPARTMENT OF AGRICULTURE

[Square brackets incorporate corrections supplied by John Radcliffe in October 2004, February 2005, October 2006 and February 2007.]

Tape 1, Side A

[0:10] John, thanks very much for being involved in the interview project. We should start, obviously, with the beginning of the Radcliffe story so to speak: a little bit of your personal background, if you don't mind – date of birth, your education, place of birth ...

I was born in the Hutt Street Private Hospital, I understand, I don't recall it, on the 28th of October 1938. When I was young we lived in Fullarton. We had, particularly on my mother's side, a strong family agricultural background. Her forebears were John Pocock: came out on the *Ganges* in 1838, and was listed on the manifest as a shepherd; found his way ultimately to Morphett Vale; and later went to the gold diggings and died only a few years later and left his widow to raise their various children. One of his sons, Alexander Cecil Pocock, was my grandfather and was my mother's father. They had land at Morphett Vale and later, about 1892, bought land at Reynella and ran agricultural enterprises there, including quarrying as well as farming. Some of the stone for the Anzac Highway is supposed to have come from the quarry, which was known as Glenfield Quarry. In my youth we often went down to Reynella. I spent a lot of holidays there. My mother was one of six children and she had brothers who went to the Mallee and also a sister who went to the Mallee. There'd been a long history of helping develop properties for the sons – mainly at Lameroo: in the case of one of them, where there are still a considerable number of Pockocks: and also at Paruna, near Loxton, another lot. My mother supported her father in running the farm. She didn't marry until a somewhat older age, in her 30s I guess. She learnt to drive at an early age, in about 1924, and so one of her jobs was to drive him around and getting parts for the quarry crusher and all this kind of stuff. So in a sense she was probably a bit of a personal assistant. Ultimately she married my father, John Dudley Radcliffe, in 1936. He was a bit older still. His family background was that they had come from near Bexley Heath in London in the 1870s and had been involved with timber mills at Hindmarsh and also with Burford's soap factory at various times. My father had worked in the Bank of Adelaide but was laid off in the Depression and subsequently got a job as a manager of an outfit that was called Simpsons Agencies. That was owned by Carew Simpson, one of the Simpson family in Adelaide, [and] which was a wine and spirit business that was located at 24 Currie Street in a downstairs basement place. So I was often taken in there when I was young, and one had the opportunity of watching the trams and talking to the inspectors outside, which was a related activity. So anyway we lived actually in the city.

... (Both voices speaking)

Yes. We lived actually in the city. We didn't have a car in those days although Simpsons Agencies had a truck because at one stage they had the agency for Meadow Lea margarine. But during the war years they rented this thing out, so it only came home at Christmas time for holiday use. Most of the time we travelled about in the trams. After a year at Miss Walker's Kindergarten – Eleanor Walker was an early player in the League of Women's Voters I seem to remember, certainly a historical personage in her own right – I went to Highgate Public School which involved a tram trip up Fullarton Road. At the end of Grade 5 I then went to St Peter's College, which my father had previously attended in his youth, and was in the Preparatory School for Grades 6, 7 and the next year, which was the year when some did their First Year [high] school, still in the Prep. School presumably because we were less mature or were younger [while] some of them did it in the Senior School, and then the two groups came together the next year. I eventually stayed on and did Intermediate and Leaving and eventually got a Commonwealth scholarship to go to the University of Adelaide where I did agricultural science from 1956 until 1959 and then did an Honours degree the next year. The Honours degree was done initially under Dr Keith Barley, but he went overseas through part of that process, although it was of some significance later, and then [completed it] with Dr John Black. Also I had some involvement with Professor Colin Donald whose biography many years later I had to do for the *Australian Dictionary of Biography*. Many of the people who were doing agricultural science at that time were cadets in the Department of Agriculture but I was not one of them. I had, I suppose by design, kept my powder dry so to speak. So I was not committed to the Department, but in 1961 I worked for one year in the Department as a so-called Dairy Husbandry Officer. Towards the end of that year I had a telephone call from Oregon State University. That was at a time when it was pretty unusual to get telephone calls from overseas. The work I was doing involved working with dairy pastures and because the Department at that stage was working out of the old Simpsons factory in Gawler Place, and it had no real facilities, I used those in the University of Adelaide up at the Waite. So I was grinding pasture samples for analysis in the pasture barn when I got this phone call from Oregon State that, in essence said, 'Would you care to have a fellowship which would enable you come to Oregon to do a higher degree? You could also get some employment there which would held support you as well'. It seemed to me that if people were ringing me up from Oregon offering an opportunity like that, one might be reasonably wise to take it, so I did.

[8:35] How did they hear about John Radcliffe?

It transpired that Keith Barley, whom I mentioned earlier, was on study leave and had been passing by. They had expressed interest in getting a person to work on subterranean clover and thought that subterranean clover was something that had been important in South Australia. Keith Barley suggested [me as] I was the most recent Honours student he could think of that he

had had anything to do with and suggested that they contact me. I was actually very fortunate to have had that connection and opportunity.

Circumstances: right place, right time.

That's right. I mean you have to be thankful for these things. Keith tragically died of cancer quite a few years later. He was, of course, the husband of Anne Levy who later became Minister of Arts in the South Australian government, and with whom I had involvement when I was chairman of the History Trust of South Australia, but that's a much later part of the story.

[9:40] Could we just go back over some of it? The story so far. You've covered quite a few years. You mentioned early boyhood experiences going down to Morphett Vale and Reynella.

Yes.

Did you stay down there in holiday situations?

Yes. It was a large old farmhouse. It was an extended family in those days. My grandfather and my grandmother were there: she died in about 1948; my grandfather died in about 1953. But they were there. Then there was my mother's unmarried sister, Gertrude Pocock. There was also Greta Nellie Paget, another sister, and her husband Alfred August Paget, commonly known as Moses because in some previous flood he'd apparently been floating around in the bull rushes or something. Moses had actually been a soldier settler in the Paruna Mallee and the Depression had become so difficult that they and their children had gone back to work on the farm at Reynella. So there was quite an extended family there, including three or four of my cousins. Moses had lost one arm down a chaff cutter in 1938, in an industrial accident of the type that was not unusual in agriculture then and probably still is unfortunately, although not in chaff cutters I guess. So he used to drive around in a [1929] Dodge, which in fact I still have at home. In those days you used to drive the sheep and cattle up the Main South Road from Morphett Vale to Reynella and the passing sand lorries and other odd passing traffic would go around you, something that would be difficult to achieve in the current day and age.

That area was more or less a rural zone?

It was all quite rural in those days. We went down either in Briscoe's Bus, which went from Morialta Street, just behind Victoria Square, or possibly you went on the train. I well recall going on a train one Sunday morning in the days when there [were] Sunday morning buses because it was sinful to run the trams until after lunch on Sundays, because you should be going to church. The Mack buses used were bought in 1925, and by 1950 were extremely noisy and my mother wanted to make sure we caught the train, so she asked the driver would he mind making sure we got to the railway station in time. He drove this Mack bus at an extremely high and very noisy speed because the differentials you could hear a mile away on the Mack bus, so we got the train and went down to Reynella, and that was fine.

[12:50] When you were down there, were you essentially holidaying or doing farm work or?

In those days there was a herd of cows, probably 25 or 30 cows, which was enough to give you quite a reasonable income – not the 400 you need to keep in the 21st century to have any sort of income. So there was the herd of cows. There was a bull in the corner. There were 100 hens, and eggs were sold at the local stores from time to time. There were sheep. When I was very young there were also pigs, but they seemed to be dispensed with later on. Fat lambs were selected, went to market, although a few were killed for the benefit of the Reynella butcher shop, the finer points and legalities of which I won't go into here. So one got a feel for mixed farming. Of course there was quite a lot of cropping – sowing the crops with a 14-hoe combine and taking it off with a Sunshine header. The header they had was an engine-functioned header. It was really a rice header, because they didn't have a power take-off tractor originally, they just had a Farmall tractor so [the header] had an Austin A70 engine which drove [it] separately. My job was to sit on the front of the header and listen to the thresher: if the speed of the thresher started to labour to the point where it sounded like the whole thing was going to block in the thresher, then you had to yell at the driver to stop him pulling the thing along and at the same time pull up the clutch on the engine. At that stage you'd try to unravel what the problem was. You're still talking the days of bag sewing, so a number of people who might be working elsewhere, for example in the quarries, would come along at 5 o'clock and sew bags until 8 [o'clock]. When they'd sewn the bags, you had to load them on the elevator and put them on the truck and drive them down to Port Adelaide. I well recall on one occasion taking up a crop of field peas, which also had some white snails in it. My job was to drive them down to Farmers Union in Morphett Street as fast as possible so that the snails hadn't ripened to any great degree by the time they got to Farmers Union and thankfully they accepted these peas which again probably in current circumstances might be looked on as not the best way to look after the pea crop.

It was okay for then?

Yes.

[15:50] How often were you going down to the property?

I would usually spend the school holidays there. We might go down at odd weekends and that sort of thing. Also, in some of the other holidays I would go to Lameroo and spend time with them. At Lameroo, of course, things were different: they had much bigger tractors, International WD9s; 400-acre (162 ha) paddocks instead of 25-acre (10 ha) paddocks; and it was very sandy. They were still losing tyres due to staking mallee roots in those days, so you had to watch out for that. And larger flocks of sheep. I also had cousins up there that were very enthusiastic

about planting trees around the place, so there was quite a lot of tree watering went on – perhaps a bit in advance of their time – mainly sugar gums.

Did you follow other boyhood pursuits of going out shooting rabbits or ...?

I never really did much of that. I used to go out with them but sit in the front when they went spotlight shooting for foxes. Not really into very much rabbit shooting. I was never really very much into sport although, of course, out in the Mallee everybody went to sport and sat in the cars around the oval and tooted the horn when somebody got a goal and all of those things, which is quite different from being brought up in the urban environment.

Seems you liked you developed an appeal, an attraction for the lifestyle.

Yes, sort of. It was because we came from a farming background and that's the thing I should do. My mother probably felt strongly I should go to the university. She had done quite well at Adelaide Girls High School. She had not gone to the university, but a number of her friends had gone to the university and got Law degrees. She at least had an appreciation of the value of a university education. That was probably quite an important issue.

[18:00] In that era, coming through the Depression, coming through war, by the end of the war you were 7 years old or thereabouts, they'd seen some pretty rough times.

Yes, probably so. I did develop some other quite extraneous interests. Due to the fact that I had to travel to school on the trams I developed an interest of what the tram population consisted of, and recorded the number of all the trams I travelled on. Eventually found out what they all were. I could never find tramcars numbers 10, 69 and 92: it was only some years later that I learned that they were sold to Victoria [Ballarat] in 1936.

So you had a near complete set?

Well, a complete knowledge anyway.

... a set of information.

I suppose. That particular hang-up has persisted over quite a long time. It was fairly well known even in the Department of Agriculture.

It's a useful thing to have a side interest. Education – Highgate Public School and then St Peter's. Were you particularly interested in scholastic work?

One was expected to do as well as one could, you might say, so one did as well as one could. I was never the top star pupil but I got on alright.

[18:30] At St Peter's what subjects did you receive there?

In those days we had a fairly standard Intermediate and Leaving program which was usually maths I and maths II, physics and chemistry, English – the basic requirements for matriculation to get into the university. And also I did French. But there wasn't the degree of choice then than there probably is now.

And you went through to Leaving ...?

Yes. I did one year of Leaving Honours there when they had introduced a two-year Leaving Honours system, as I recall. But I had a Commonwealth scholarship anyway.

And you went off to university to do Agricultural Science?

Yes.

Was that the only option or ... any other subject you thought about for a career?

No. That's what we thought we were going to do, so we went away and did it. That involved the first two years down at North Terrace, which involved riding one's bicycle down Fullarton Road, down Victoria Avenue as it then was and Dequetteville Terrace, Hackney Road, look over the fence at the tram depot to see what was going on there, and then through the Botanic Park and into the back of the university, hang your bike up in the bike shed and go to your lecture. Although in second year I had to leave a botany lecture early to go and enquire whether we might have a number of trams given to us to establish a tramway museum. In the course of that they ultimately wrote to various other interstate outfits and discovered that other people were doing it so they said yes, we could have some. We thought naively we would send them over by train to Sydney and that would fix it, until we found out how much that cost. Subsequently decided that we would have to establish our own tramway museum, which we did. At least at the moment it is still functioning at St Kilda, but that is another story, not terribly relevant here.

Although in one sense it is relevant in that you're getting interested and involved in organising a museum.

And the subject of history, which I had other involvements with later in my career, of course.

That was a very young age to do it, working with other people with similar interests.

That wasn't unusual in those days. Many of the other railway and tramway museums around the country were established with quite young people. One of the problems with the maintenance is that the same young people are now old and they are still running them in many cases. The same happened in Britain. I know the people, for example, running the National Tramway Museum at Crich in England. Exactly the same circumstances there. They were young people who had been brought up with the trams as an important part of their daily life in how they got about. When they suddenly disappeared, they thought they would like to retain them in some way. The use of volunteers has perhaps changed a bit. These days more people can participate in single things like surfing on the Internet or computer activities, whereas in those days a lot of functions were still community based so a group of interested people came together to do things. Still that is evident out in the country areas more perhaps these days than it might be in the city areas. You've still got Agricultural Bureaus and community groups of

one sort and another in the country still operating, albeit with rather reduced numbers because of the amount of adjustment that has taken place in the farming areas.

But still, it is of interest that people so young would be interested in, in this case, a museum. Why would people of that age be interested in something historical?

I suppose it was something in which one had an interest and which one saw disappearing. If you wanted to do something about, you'd better go and do it. So that was the basic motivation. We found a kindred soul who was somewhat older than we were, who worked at the WRE [Weapons Research Establishment, Penfield]. He went with me to see the Tramways about getting some trams. He went along partly to create an illusion of maturity, which I was probably not able to give at that age, but we got there. So, all this is quite incidental to this particular topic.

But along the way you're developing contacts and skills, organisational ...

Let me tell you that working in a volunteer organisation of that nature gives you a fairly hard nose to the principles of management.

To bring us back onto agriculture as such, that was in the second year of university?

Yes. Then the third and the fourth years were up at the Waite campus, where we are now, and I tended to specialise in agronomy and soil science. Some of the third year we spent out at – or maybe the fourth year – we used to go Roseworthy one day a week. We also had to do some practical work at Roseworthy. Some slight disturbance was caused because the *Journal of Agriculture* in one particular issue included a photograph of what was ostensibly a Roseworthy student feeding some calves, which I happened to be doing at the time when the photographer went past. The Roseworthy students weren't sure they liked a 'Eunuch' being shown as a Roseworthy student, as we were known, so [there was] a little bit of notoriety there. But other practical work was done at Reynella or in the Mallee or with another cousin over in the soldier settlement area near Hamilton in Victoria. You had to do 35 weeks of practical experience on farms in your four years of training for a degree.

You had plenty of opportunity then to knock that up?

Yes.

Going up to Roseworthy College, were you staying overnight?

No, generally we went up in the morning and we came home at night. We would set up little car-pool arrangements, I would borrow a car from a suitable relative when it was my turn. We may have actually had a car by then, so there was a group of about three of us or four of us, three with cars and one Indonesian student, we used to go up together. One of those students had bad eyesight and was driving a Standard Eight, which seemed to be a very unstable car, and he wasn't well placed to see traffic coming in the other direction when pulling out into the

opposing traffic stream, which made us a bit nervous and uptight. Anyway, we survived all that.

You got through it. The Roseworthy experiences, how broad were they?

They were primarily lectures in animal production in the formal sense. The farming experience I wouldn't say was particularly creative. One learned how to harness a horse dray and put stone on it and fill up potholes which was not perhaps awfully educational but it kept us occupied to some extent. We did a bit of seeding and milked the cows, and odd jobs around about. But I must say it wasn't one of the more educationally constructive processes, and also there tended to be a slightly competitive relationship, shall we say, between the Roseworthy students and the university students.

... you'd mention that sort of aspect ...

Although in part of that time you could be working in the AP [Animal Production] laboratory doing laboratory-style work, counting microscope slides and numbers of cells on each slide. If they were doing some project on wool follicles, you could be involved with looking at the slides made of biopsies taken from sheep as part of that project; that was interesting.

[28:00] What sort of expectations did you have as you were going through the course, particularly by third, fourth year, expectations about what you might do when you finished? Were you thinking you'd be a farmer or working in education or ...

My experience was not to get too worried about what the possibilities [would be] – you go and do the job as well as you can and opportunities will probably present themselves. If they do, well that's fine. So I had the opportunity of going to the Department of Agriculture and joining the Dairy Branch, which historically had always been involved only with dairy manufacturing. By being called a dairy husbandry person, I was the first person who was starting to look at [researching] the actual management of the cows as distinct from the management of the milk from the cows.

But moving there was that essentially another of these grabbing the opportunities ...?

There seemed to be an opportunity there so I took it. In a way I was given a fairly free hand. The initial research that we did was involved in trying to get a measure of the annual production of pastures so we used to have to take pasture cuts on a number of properties, and get feel for pasture growth cycle because that then related to the feeding requirements of the cow. So we used to cut herbage samples. We bought two Pope rotary lawn-mowers as a cheap and rather crude way of cutting samples and we used to cut a certain linear distance with these mowers. They were two-stroke mowers. We bought two because when one of them got overheated and you couldn't start the damn thing, you used the other one while the first one cooled off. A rather pragmatic approach to the matter but it seemed to work alright. Then we bought our pasture samples back into the city in paper bags and we dried them in the big

herbage oven that was in the back of the [departmental] building in Gawler Place, and weighed them out the next morning and that enabled us to get a measure of the growth cycle of pastures in the dairy areas. I also tried to get a measure of the condition of the cows and we did this by measuring their girth, because we had a relationship between body weight and girth measurements that I had found in some American literature, so I'd go down early and measure the girth of all these herds of cows and then help the guys wash the cow yard out afterwards. That way we would see whether or not the condition of the cows varied with the amount of feed on offer, which not surprisingly were related, and that work continued after I went to Oregon for a while and then I did some further work in that field when I came back.

[31:30] You mention researching the size of the cows and so on. How receptive was the Department to new techniques: here was a new graduate coming in and saying ...

It was at a time when the Department had not had a lot of historical involvement in research. It was just starting to get really into research. There was an historical agreement with the University of Adelaide that particularly in some areas such as entomology and plant pathology and plant breeding that the university would deal with those areas, and it was really only about that time, probably starting with Sir Alan Callaghan and then [Mr A.G.] Strickland after him, where they started to develop research capacity. Also, there was some funding becoming available externally: one [lot] was from the dairy industry, and the other was the Commonwealth Extension Services Grant, and that allowed the Department to start employing people on money, other than the State government money, which meant there was quite a rapid increase in the number of graduates being taken on in the late '50s, early '60s, which was about the time that I was initially there, and then when I subsequently came back from Oregon as well.

Had you been employed in 1961: were you classed as an employee?

Yes, yes, for the one year that I worked in the Department, which was the year after I did my Honours degree.

Then you went up to Oregon to do your PhD studies ...

[33:25] **End of Side A, Tape 1**

Tape 1, Side B

[0:05] ... request to have an Adelaide student go off to Oregon?

I'm not sure if you could have taken unpaid leave: you could possibly have been given some further cadetship and been bonded as a result of it. The Department had funded several people to do higher degrees about that time. Most of them came back to the Department although in some cases they didn't stay very long. But anyway I decided to resign because I was wanting

not to be particularly committed one way or the other at that stage. With only one year's service, it didn't matter very much.

You couldn't be certain what opportunities would come up?

Yes, I was keeping my options open, I suppose you might say.

[0:55] Perhaps we could talk a little bit about the Oregon experience and what was involved there, the research project and the ...

The degree in Oregon involved a number of components. Being an American one, it involved a certain number of lecture requirements and examinations whereas the Australian degrees were normally fully thesis based. I'm not quite sure whether I was thought to be initially to be going for a Masters degree, but anyway it soon became a PhD without going through the Masters process. I did a range of subjects. I really had three specialist areas: the major area was farm crops (what is now called crop science); the second area was soil science (which was a 'minor'); and the other 'minor' was range management. I had a thesis topic which was the inoculation of subterranean clover when used on the planting down area that had previously been covered with Douglas fir, and had been cut over for timber production, for what we call 'Oregon' (*Pseudosuga menziesii*). The idea was that after it was cut over, rather than the timber regenerating, you planted [the area] down to subterranean clover and established a grazing enterprise, something in this day and age that probably would be socially unacceptable. But anyway that was what they wanted to do so I worked on various aspects of inoculation of subterranean clover seeds using different inoculant sources, aspects of lime pelleting, different sources of lime to try to identify those that had the longest survival. We had some field experiments. We also had some aerial seeding experiments. The aerial seeding experiments when we started were not terribly satisfactory as the idea was that I would cover the plots, where I did not want the seeds to fall, with plastic. We would then ask the [pilot] to fly across and aurally seed the subterranean clover. So the first time we tried it I called over the guy with the aeroplane, and soon afterwards with his fly-over over, I hear 'pitter patter' about 50 yards away, because all the seeds were blown downwind and none of them hit the plots. So anyway we had to get our act a bit more effectively together there, but we managed to do that. I also had a little interesting experience about nodulation failure in lucerne, or alfalfa as they called it. It was at a time when one of the major American seed companies had discovered rhizobia* and was offering to preinoculate the seed. Generally speaking, legumes are inoculated immediately before you sow them, because it's believed that the rhizobia do not have a long life span once they've been put on the surface of the seed, but this seed company had a marketing philosophy of saying that they put in the seeds into a large drum and pulled a vacuum on the drum and then put the rhizobia into the container and then the vacuum was to pull the rhizobia into the seed

coat where it was protected from desiccation and therefore it would be fine to use. But anyway it transpired that somebody had used this stuff in a paddock near the State capital of Salem and you could see quite clearly almost all of the lucerne plants were quite yellow – they had not been effectively nodulated. We brought some of them back in tins with their soil and inoculated them and they immediately grew nodules and turned a nice bright green colour. Subsequently, the farmer sued the seed company. So I had to go up and be prepared to give evidence but then they settled out of court before lunchtime so the plaintiff's lawyer invited us all for lunch. We had a nice lunch and were not embarrassed by having to give any evidence in a confrontational environment. That was my first experience of a court case, which was an interesting experience.

Just to clarify one thing John, you refer to 'we' were doing this.

'We' in this context is my major professor and I. I should explain that my major professor was a guy called Bill McGuire who came from Arkansas, but had done a Masters degree at Lincoln College in New Zealand and had married a girl from Christchurch. He had quite strong connections to New Zealand. He had also done a sabbatical with Frank Crofts from the University of Sydney on pasture establishment. Frank Crofts was a highly recognised player in the pasture game, also in sod seeding of oats and things of that nature for the dairy industry in the 1950s. So McGuire, I suppose, was at the back of trying to find somebody from Australia who could work on subterranean clover. I had quite a good relationship with Bill. Even in recent years, I still go to see him if I am passing by. He adopted quite a lot of New Zealand attitudes and Australian attitudes to things, so we got on fine.

It seems very much a hands-on supervisory role?

Yes. He had a lot of plot work on a place called Hyslop Farm, which was about 10 miles from Corvallis. Corvallis is where the Oregon State University is. That is a Land Grant College. Some of my money was earned by planting his plots for him and watering them at 6 o'clock in the morning, moving aluminium sprinklers around and that sort of thing. That was all good fun.

It was more a collaborative sort of research project?

My own thesis wasn't necessarily, but as supervisor then he would oversee it, but ..

You've got to write it up by yourself and so on?

Yes and he had a number of other students. Other work I was doing for him, you could say that was collaborative. Sometimes we'd go and talk to farmers groups and some of it was down the Oregon coast, where we had the plot work. That was quite an effective and enjoyable relationship. It was quite applied. I wouldn't say it was brilliant science, but it was ... you got to know the community and was good fun.

* Note from John Radcliffe: rhizobia is the common name for the plural of the root nodule bacterium *Rhizobium* genera.

[8:30] Were you interacting with other students and other academics?

Another person who was there was a guy called Murray Dawson who was my supervisor for my minor in soil science. He actually came from Christchurch. His father lived in Christchurch. He'd been appointed to soil science quite a few years before, but again was part of this small New Zealand–Australian mafia which was on the campus. He was a person who said what he thought in words of one syllable, so that was quite effective and supportive relationship. But then there were a few other Australians on the campus. The range management people were a somewhat different breed. They were very much from Eastern Oregon, Idaho, Nevada and that area. That gave you quite a different perspective on ranching, if you want to call it that, but one of the difficulties there was that the environment, although it looked loosely the same, were completely different species, so what we'd been used to looking at as Blue Bush and Saltbush, over there were *Artemisia* species, which were blue, but similar to what we'd call wormwood. It takes you a year in an environment like that to get to understand different ecosystems from the ones that you might be familiar with.

[10:15] Was it a three-year PhD?

Yes. When I first got to Oregon, I got holed up in a pub in Corvallis just before Christmas in 1961, having flown over in one of the early 707s. The first week was pretty awful. It was very cold and you couldn't go outside and I didn't know anybody. But the head of the Department invited me home for Christmas dinner and that was nice. After a week or so I then moved into one of the college dorms for a term. Later I stayed with a family for the rest of the time I was in Oregon. That got you into the community. They had things like 'pot-luck dinners' with their church group, so you went with them to various functions. Then you went to some of your own functions, so you didn't really feel any different from anybody else on the campus.

And the three years was just long enough to get a feel in the research work, for the success of the experiments and so on?

Yes. I got a thesis out of it. We could establish that we could nodulate sub-clover by various means. That part of it was successful. It was only much later that people were asking whether people should be putting subterranean clover down on country that had previously been natural forest. Of course, most of the timber industry in Oregon has now disappeared. When the concern arose in the late '80s, early '90s about spotted owls being threatened, much of the timber industry, Weyerhaeuser and other companies, migrated to the southern States and Oregon lost a lot of its timber industry.

Perhaps one other point to that too was that the family I lived with, the father of the household worked for the Douglas Fir Plywood Association, and his job was quality control. So he went around to all these mills that were making plywood and had to take samples, probably [for]

what we'd now call ASO 9000 I suppose. I'd occasionally go out with him to the mills. That was quite interesting. Some of them were company towns where you'd even have a frozen boardwalk that led from the company town to the mill, you'd have a pond full of logs and then inside the mill there were very hot presses pressing the sliced timber to make plywood. It was a quite interesting environment. Almost all those mills have long since disappeared.

The industry has disappeared itself?

Yes. The technology has changed anyway.

[13:15] What sort of benefits did you pick up? Apart from securing the PhD, what were some of the good things that came out of that experience?

One of the aspects was that I was given a chance to be reasonably self-reliant. Also, Bill McGuire, my supervisor, had six months sabbatical in the middle of all this so I was basically put in charge of running his affairs and his office. I took over his swivel chair with a feeling of importance. I leant back in it and fell backwards into a rubbish tin in the process, because it was swivel with four wheels on the bottom instead of the safe number of five, which we now have. That was quite an education as well. I maintained the research projects and worked out what we had to do and when we had to it: we had one or two students who helped, so I suppose I was left in charge of conducting the research in a good and proper manner, that's probably a good experience in taking the responsibility.

[14:30] Responsibility in management. I asked the question earlier, John, about your study in Adelaide and the same thing applies here, the same question applies here: what did you expect to do as a result of the PhD? Secure a post in America, perhaps ...?

I assumed that I would come back to Australia. I should also point out, of course, while I was there I acquired a wife. Indeed, prior to our marriage for a little while she was employed with a little bit of grant money to assist with some microbiology plating and that sort of work, which was done in a different department. In fact, she eventually came to Australia and she did her PhD at the Waite Institute after she got here.

[15:20] Was she an American?

Yes, she is American. That has also had some advantages because it means our children have both Australian and American citizenship. Our daughter who became an environmental engineer and worked for some years for overseas countries would find it easier to get in and out of countries – she would present whichever passport didn't need a visa. So that was fine. Indeed our son is currently working as a winemaker in New York State. Again he has made use of his American citizenship and is now enrolled as a recognised member of the one of the political parties so he can vote in the primaries.

[16:05] Had you come back to Australia while you were studying?

No, that would be quite expensive, so, no. Of course, while I was away my father died and I got a series of letters at daily intervals, because he died reasonably quickly. All that had happened in fact before the first letter of that little series got back to me. But one kept in touch because I had a subscription to the *Chronicle* which was then, of course, the weekly *Advertiser* but it included a summary of the week's news as well as the agriculture information. Also, I had a subscription to the *Bulletin* so that kept you up with what was happening locally. Also, the consulate in San Francisco used to post out each week a little summary of Australian news, so that would come. You'd look forward to those things arriving and that would keep you in the picture as to what was happening. I also was a good lad and wrote a letter to my mother once a week as to what I was doing, which you would now do by e-mail. In fact in recent years we have been involved with Japanese students. We had a Japanese student stay with us for a year and then he went back and finished his Bachelor's degree. A few weeks ago he arrived at ANU. His first week was quite difficult as was mine, because he didn't know anybody. He got a bit depressed and all the rest of it. After the second week he was fine. We helped him find a bicycle from a friend of ours. I had quite a lot of empathy for what he's faced. We have enjoyed interacting with students and helping them in recent years.

Reciprocating in the way that you had been ...

Yes. But equally well, I must say. Last year we went to Japan and those students and their parents were exceptionally generous to us. We were there for three weeks and in that time I had to pay for four nights in a hotel, one slap-up dinner in a French restaurant for one set of hosts and bought lunch in a restaurant for a group of students that were taking us out, only to be told 'You weren't supposed to do that, my father gave me the money for that'. So there are rewards in interacting with the kids and we've really found that quite enjoyable.

[18:40] That is part and parcel of the sort of academic world in a sense.

It probably is, although many of the people now doing that in Adelaide are not necessarily academics, some are people from business that aren't particularly academic; one of them was a former Minister of the State government and who told me cheerfully that he found it much more rewarding than being a Minister in terms of personal satisfaction. But that's all by the way.

[19:05] The fact that you acquired an American wife, did that alter your thinking about coming back to Australia at all, or were you still ...?

No, no. I just implied to her that she might be expected to come back to Australia ... (both talking) ... the marriage, so I really came back with a wife, a large trunk full of books (which were mostly hers) and a right-hand drive car that I bought in America (rather inexpensively), a 1963 Rambler. When I decided I might be wise to trade it in 10 years later, because of [its] aluminium block, [which] tended to deteriorate a bit, my wife started to wonder what the trade

in opportunities were for other participants that came out as well, but it didn't seem to be a serious issue!

[20:00] So when did you return?

We came back in late 1964. There is a story there too. We got married at the time of the graduation in Corvallis. My mother and her sister came over for the wedding. I needed to have a honeymoon. The head of the Department meanwhile had suggested that 'Would I be interested, if he could secure support from the Rockefeller Foundation, for a study of other land grant colleges before I went back to Australia, because it might be useful for the Rockefeller Foundation to have a contact in Australia, that had been a recent graduate'. So I had a discreet negotiation with the Rockefeller Foundation that boiled down to saying 'Were they happy for the money that might have otherwise bought a number of plane tickets to go to these places to be put towards paying me to drive my car around America to do the same thing?'. That would be a convenient arrangement for me. The Rockefeller Foundation said, 'Yes, that would be fine', which is how I got my honeymoon paid for by the Rockefeller Foundation. So we visited quite a lot of colleges, land grant colleges. One of them was being used for a PhD by [Kevin Sheridan] who later became Director of Agriculture in New South Wales, and was so when I was so in South Australia. We found our way all the way up to Quebec City and then went down through Maine and then across the middle of America. Only had one problem. I was visiting I think it was in Columbia, Missouri and it was just before the July 4th weekend and the academics that I had lined up to visit had forgotten about it and had gone away for a long weekend, so we didn't get any great joy there. But the rest of it was very good. We saw a range of university facilities and land grant colleges, met a lot of researchers, saw a bit of USDA people, mostly it was a pretty useful experience.

I bought the car back, of course, by ship, but we unloaded it in New Zealand and we spent several weeks driving in the car around New Zealand as well, visiting various institutions. The whole thing was really a pretty good post-graduation experience, and that's really pretty valuable. I'd been to New Zealand earlier with a group of students where we'd hitchhiked around the country and along the coast, so I knew my way around New Zealand a bit anyway. I went to the Grasslands Congress in Greymouth, which is on the west coast of the South Island, and gave a paper about rhizobia. This conference being held there was a big deal for Greymouth, which is really just a coal mining town, and everybody that had a pub there got it into gear for the guests. The particular hotel we were at, the owner had bought his son back from Christchurch to help run it for this conference – his son was an architect. Anyhow, we were walking around the town in the evening. What I didn't know was that ... it was in the days of 6 o'clock closing in New Zealand. We came to the front door [, which was locked,] and

knocked on the door because we would like to go up to our room. But it had the effect of emptying out the back bar. Because I hadn't given the right knock, they didn't know who the hell it was and thought it might be the constabulary calling. I was then educated about the appropriate way for entering the hotel after hours in order not to cause economic inconvenience.

When was that trip to New Zealand, from America or from Australia?

I was on the way back from America.

The Greymouth conference was on the way back.

Yes, because I had seen this [opportunity] and thought that's a good idea, so I arranged to present a little paper there.

You'd been there previously, you said to New Zealand?

Yes, I had been to New Zealand previously when a group of students went around.

Was that from Australia?

Yes, from Australia.

Just to clarify that.

At the end of fourth year before I started my Honours degree, a group of four of us went.

A bit unusual for that ...?

No, it wasn't. There were two groups of people from Ag. Science that went around New Zealand. We used to meet now and again. There are people on this campus still who were in the other group. Two of us were Ag. Science, one was a science student and one was a medical student. The medical student is now a very senior officer in the Institute of Medical and Veterinary Science. He was an organ player, so every town we called at he had to check out the stops in the local organs to see what they had going. Another one was an Ag. Science [student] of economical disposition, so he would go and buy half-rotten fruit at half price to stoke us up. The science student, ultimately in later years, was one of the participants in our wedding, did a Masters degree in Washington and married a girl from Wyoming. His career was a bit like mine. Indeed, I arranged for him to provide a bicycle to our Japanese student [in Canberra] last week. Some of these connections are quite long-standing.

That's going back over almost 50 years.

Yes.

While you're on your holiday in New Zealand you weren't tempted to do any work on a farm or anything, going do a bit of shearing or ... ?

When we were coming back? No, not really. It was really something of a holiday, but a drive around. We went to the usual places. We drove, we must have started in Auckland, where I had

to get the car registered in New Zealand, and went down to Christchurch and Dunedin and over to Te Anau and Queenstown and then found our way back up again. Then the car was loaded ... it was on the *Oriana* to get to New Zealand and then we went on the *Canberra* to get from New Zealand to Sydney, and then drove the car from Sydney over to Adelaide and found our way home.

[27:15] And you're coming home, did you know what you were coming back to?
What was I coming back to?

Did you know what it was ... you ...

No, not particularly, we would come back and see what I could find. It actually proved easier to enrol my wife for a PhD than it was to get a job. The Department of Agriculture was very keen to have a job, but they had to organise the process. So I didn't really start in the Department of Agriculture for a couple of months, but I finished back really pretty much where I'd been before in the dairy area. At the time when I came back there was a guy called Graham Itzerott who was the Chief Dairy Officer, who had been there previously. He said, 'I think you'll do very well. You might be the Director-General of Agriculture one day or the Director of Agriculture'. I wrote that thought off, but I always remembered it and it transpired that he always remembered it too. So when I eventually became the Director-General of Agriculture, I got a nice little note from him. (laughs) So we always had quite a nice long-standing relationship. In my case he'd retired quite a few years before I became Director-General of Agriculture. He died actually only a year or so ago. It was one of my pleasures, only fairly recently, to show him all around the Waite campus and see what we had done up here. He cross-examined the people quite well. He was in a retirement home on King William Road and he used to go over to the Unley Library and read the latest issue of the *New Scientist* and that sort of thing. So I asked him, 'Did he have much interaction with the other participants in the home?'. The short answer was that he didn't. He had much more scientific fields of interest and much of the rest of the home was people in their dotage I guess. His wife had died sadly of cancer, probably 15 years earlier. He'd gone along by himself and continued looking after himself and eventually he had to get into a home, but he managed his affairs quite well, and proved adaptable and reading the scientific literature which he always had done, even in the Department, and managing his share portfolio kept him sane for a very long time.

[30:00] Those homes are a different story altogether. He was quite prophetic obviously with his words.

Yes, but you don't want to get delusions of grandeur when those things are said to you.

The question there John is I mean you're back to re-joining the Department in early '65 or thereabouts. What were your own expectations, despite this prophecy? What were you thinking you're going to do for the next 40 years sort of thing?

I suppose our immediate concerns are what can we usefully do ... we established a few research projects, some of which were built on what I had been doing earlier. Another one was built on looking at different sorts of lime for rhizobia lime pelleting. One could do that because we had a bacteriological laboratory in the dairy branch but after a while it dawned on me that really there wasn't a lot of point in pursuing that so [we] pulled out of that area. I must say the way that I was employed was almost, 'What do you want to do? Go and do something useful'. There wasn't a lot of research direction because there weren't a lot of [scientists]. I was really still [new] ... There was a PhD scientist with a dairy industry background. We had a dairy laboratory which provided starters to all the dairy factories, which actually was a very successful exercise, because it meant that they had quality control available to them if they wanted to use it in how they made their cheese. We had a pretty good cheese industry. By these starters being used on a rotation and being sent from the Department, it meant that they did not get into phage problems which means that the starters might have otherwise lost their effectiveness biologically. Having 14 factories at that time, now much reduced in number, and eventually the factories gradually learnt how to do all these things themselves, and the Department pulled out of that service, but it did lay a very good quality foundation and I guess I had some interaction with that, although I wasn't really directly involved with it.

[32:20] I suppose my question was thinking that you're getting back into research work and you're going to devise a couple of programs of what you wanted to do, but could you see yourself doing that for a five-year or a ten-year plan or ...?

I suppose I've never been a great believer in trying to plot one's career many years in advance. In some of the positions I've had I wouldn't have expected to gotten them until two or three weeks before I was appointed. I didn't expect to be appointed when I applied for the job as Director-General of Agriculture. I didn't subsequently expect or see coming the opportunity to be invited to apply for a job in CSIRO. My own feeling is that you need to do the job that you have to do well You also need to help your superiors do their jobs well ...

[32:30] **End of Side B, Tape 1**
Tape 2, Side A – Session of 2 March 2004

[0:10] John, we got, last time, to the stage where you re-joined the Department in 1965. You were coming back to work in the dairy area. Perhaps we can pick up the story there of some of the things that attracted your attention and involvement you for the first few years back in South Australia.

I suppose the important thing that had happened while I had been overseas was that the Department of Agriculture had got possession of the former Northfield Mental Hospital Farm, and were proceeding to develop it into a research centre. They had built a laboratory building on the western side of Fosters Road. The design I understood was basically a copy of the sort of high school that was being built around the country at the time. Such places as Findon had one. It had offices on the north side and laboratories on the south side of the building on both floors.

There was also a small potting shed built. When I first re-joined the Department I was in the Gawler Place facilities for just a little while. Then I was relocated out to Northfield and was in the main laboratory building and was asked to be a dairy research officer.

There were several other people there who were involved, including Ron Perry, who had come out from the city and was involved still in producing the starter service, the cheese starters for the industry. There were a couple of field officers that were in that area. Alan Hehir was a dairy technologist who had previously worked in England and had worked on such things as canned rice cream. He once told us the story of how they had a lot of complaints of people finding flies in the rice cream in a country which wasn't given to a lot of refrigeration apparently. They'd denied that flies could actually be canned in rice cream so they actually canned some rice cream with flies in it to see if they could see the flies after they opened the cans, which they could not. And the assumption, of course, was that the flies climbed into the cans after people had opened them. A little piece of irrelevant aside but the sort of issues that you have to face in commercial enterprise.

So we decided to develop the farm side of the business and I was again under Graham Itzerott who had been my boss prior to going to Oregon. He gave me a generous amount of *carte blanche* to perhaps suggest some things perhaps we might do. So our initial work was primarily oriented to trying to follow the digestibility of dairy pastures. So we set up a series of trials around the Adelaide Hills in which once a month, through most of the growing season and through until about November, we took pasture cuts, which I must say were taken pretty simply. They consisted of what you could get into a Pope lawn-mower when you traversed a certain distance as a plot. We had two of these Pope lawn-mowers, which were very popular and relatively cheaply available at the time. They were much given to oiling their plugs, because they were two stroke, when they got hot. The concept was that when you couldn't start one of them, after a while you'd let it cool down by using the other one, so we always took two of them. That seemed to be reasonably satisfactory. After we got all the bags of grass we had to take it back to Northfield and dry all this material. Then you weighed it and from that you could calculate out the yield of herbage.

At the same time we had also set up an in-vitro-digestibility system, which involved using rumen liquor from a fistulated sheep. You digested a sub-sample of the grass overnight and measured the digestibility that occurred. That allowed you to both measure the total dry matter yield but also the yield of the digestible dry matter, which was the important issue in terms of cow feeding. We also did some of that on hay samples. On a number of occasions we visited Agriculture Bureaux, for example at Meadows and Halbury, and we invited the farmers to bring

in their samples of hay. We then took them down to the laboratory and analysed them and got their digestibility. We also measured the protein content by the Kjeldahl method, which was the traditional method. Then we went back to the farmers and discussed what all these things meant in terms of the feeding value. We also used to try to illustrate to them the credibility of the digestion process by taking with us a fistulated sheep. We had a particular sheep called Quincey who was fistulated and became very good at running up stairs in public halls around the country. We had a little cage we put him in on the back of the ute and sheltered with some canvas things, and took him up to the night meetings. We'd run him into the hall and I had a metal tray with a set of lips around the edge and also a wooden ramp. We'd come into the hall and the farmers would be sitting there. We would lead the sheep and he would run up his ramp and stand on the table. He would be standing so they could not see the plug of the fistula. I would then outline the digestibility process and when we got to pulling out the stomach pump, which we also took with us and demonstrated how we used it ... we turned the sheep around so they could all see the plug hole, which caused a certain amount of queasiness, I must say, in the audience. On the other hand, they could see the legitimacy of the process in which we actually used the rumen bacteria from the sheep, which as farmers they understood well enough. From that point we then put all the hay samples out to look at them. We handed around little sheets with the data. We indicated which we thought were the best ones. We invited farmers who had some of the better samples to outline how they had made them. Usually they had cut them early and perhaps had done all the things that we were encouraging. So that went down quite successfully. Indeed, it resulted ultimately in my becoming involved in what used to be the Agricultural Produce Section, now the Grain and Fodder Section, of the Show Society because one of the members of the committee was from the Halbury Agriculture Bureau where we did this and was keen to get the Show Society to start judging its hay and chaff on feeding value rather on just a visual appraisal [such as how] it looked and [whether it was] cut short, and that sort of thing. I have been involved in the Show Society in that area ever since.

[8:20] So that was your initial contact ... ?

And that's how I got into it although, of course, I'd been to the Show virtually every year since I was a kid, so I knew the Show pretty well. I was pleased to be involved.

[8:30] It was very much practical work you were doing there ...

A lot of it was hands-on in those days. At the same time we also developed a series of projects using the dairy cows in which we would use various feeding regimes and supplemental feeding. We used to weigh the cows, sometimes every week, in order to follow their weight in terms of nutrition – were they were losing weight or gaining weight after calving? We developed a system where we had a set of portable cattle scales, which were in the middle of the cattle yards. This involved the cows going up a ramp, standing in a crate, which was on the scales,

and then opening another door and letting them out after we had weighed them. We'd got the cows fairly well trained. We would just yell out 'next' and the next cow would walk up and stand in the crate. You would weigh her and then you'd open the front door and she would go out and you'd open the back door and yell out 'next' and the next cow would walk up. You can train animals to participate in these things quite well. If you do that gently so that they are all part of the scene, you can save yourself an awful lot of hard work.

[9:50] And that sort of developing those programs, activities, is that something that is particular to South Australia?

No, I wouldn't say it was particular to South Australia. There were similar sorts of things going on in some of the other States. Perhaps we did some of the digestibility work earlier here, but there were quite a lot of feeding trials, particularly at Ellinbank in Victoria, which was quite a large facility in the then Department of Agriculture. There was other work going on in Wollongbar in New South Wales. Very occasionally we would meet the scientists from other research institutions. Back in the late '60s, early '70s, CSIRO was commissioned to run a series of research and review conferences. We would go to those, perhaps discussing what, where science had got to in serving particular industries, whether it's grasslands or dairy or whatever. There would be series of resolutions that would come out of those that would suggest where the research ought to be going. To some extent that involved a degree of barrow pushing on behalf of the various scientists of course, but it did represent benchmarks and it allowed you to build up networks with other scientists in the same field at a fairly early age. That was valuable and in some senses it is a pity that those conference aren't [still] held in quite that way, although they are very largely now replaced by meetings convened by the research and development corporations from a different perspective, so there are substitute arrangements.

[11:30] Did you establish personal rapport with any particular scientists or, conversely, other scientists tap into you as a source of knowledge, interstate people and so on?

Yes. We got to develop some linkages and that resulted in me being asked to go both Perth to give a training program about feeding in the Western Australian Department of Agriculture, and also to a conference that was held at Wagga – the Wagga Outlook Conference which was for southern New South Wales. You'd get these networks built up and you still know some of those people, although some remained in dairy research and others migrated into policy areas, but you still had that network. Also, there was a network that involved both the dairy farming and the dairy-manufacturing people. That was quite useful because in many of the agriculture areas what happened after the farm gate wasn't really a consideration of the departments, whereas in dairying because of the historical involvement with the dairy factories, the cheese starters, you actually were involved and you could get responses to the milk and the production and so forth right through to the consuming end. That also led to genetic research as well. In

later years we did quite a lot of work on the genetics of milk proteins. That was led by Dr Lindsay Bailey who sadly died of cancer only a few years after we started that work at Northfield and was quite a loss to the Australian dairy cattle industry.

[13:25] That networking and sharing of ideas seems to be an important way for the knowledge to spread, thinking of the '60s, there were also those territorial limits: 'We work within South Australia', 'We work within Western Australia', those sort of borders to cross as well.

Communication was more difficult in those days. For example, because the South Australian government owned the South Australian Railways, if you went to a conference in Melbourne you were expected to travel on the train overnight, you couldn't go on a plane. If you were going to another State well you could go on a plane. Otherwise you might drive to a conference because it was cheaper and you could take three or four people that way, which you couldn't do for ... for example, we drove to the International Dairy Congress in Sydney, which was held in those days at the old Sydney Showgrounds. That way about four of us went over there. We stopped overnight part way along the way and finished the journey and stayed in Sydney for the conference.

[14:30] As well as meeting other scientists, were you getting involved in report writing and getting publications on these programs.

Yes, you were encouraged. And that's where Graham Itzerott as Chief Dairy Officer probably was a more positive influence than some of the other people in the Department because he religiously read the literature – the newspapers and journals – that were put out every week in the departmental library, which set a precedent which encouraged us to do that, and also encouraged us to pursue publication. Often the publications that we did were probably fairly applied. They might be in something like the *Australian Journal of Dairy Technology*. I did one early on measuring milk protein using a dyed substance technique. I got a little publication out of it. It was done with quite simple equipment but it was the basis of technology that's been further developed through the industry since then. Ultimately it was automated by European firms developing equipment that could handle large numbers of samples. We didn't in anyway create the idea that was the origin of this but what we established was that it could be made to work in our own laboratory and it was useful in determining protein values in the milks that we were using experimentally.

[16:00] Getting those results published in journals and so on: was that different in the dairying area to the rest of the Department where they might use something like the *Journal of Agriculture*?

I suppose you had perhaps a limited range of journals. The *Journal of Agriculture* tended to take more in the nature of extension articles and in later years it was abandoned and replaced by a whole series of fact sheets. The fact sheets were given to those who wanted them. I had published some articles in the *Journal of Agriculture*, but later we published quite a lot of fact sheets but they were really for the farmers' consumption. We also did articles in, say, the

Proceedings of the Australian Society of Animal Production, we did the *Australian Journal of Agriculture Research* and sometimes we did them in international dairy journals such as the *Journal of Dairy Science*. I must say it was my experience [that] it was often harder to get them published in some of the Australian journals than it was in the overseas journals.

For any particular reason?

Australia maintained very high standards of the publication of science. That's fine.

So, in a sense, the barrier's being raised for you all the time: you have to produce to a certain standard.

That's important. In some of the things I'm doing currently with the Crawford Fund, we are running programs of training people in China to write in English-language journals. In fact, those that do a PhD in China are now required before they are given their degree to have shown that they have actually published an article in English, which is not their native tongue, in order to get their PhD, which is a very high hurdle. But we have certainly had a lot of encouragement where we've had joint ventures with the University of Adelaide to train scientists in scientific writing in English in China. Back off a bit, in the days of the Department of Agriculture we used to run quite a lot of programs training people how to do scientific writing in Australia, for our own Australian journals. They were popular and probably were important because we had a lot of young people who'd joined the Department. They had not really been trained in scientific writing, though they had been trained in fieldwork and they'd set up the experimental programs. When the time came to do their scientific writing, those courses were important.

[18:42] Quite a few of them would have come through the university stream, like yourself a postgraduate degree ...

Yes but in no case would they have been trained in writing scientific *per se*. They would be exposed to the school of hard knocks when they tried to write their first articles. I remember the first one I tried to write. It got liberally covered in blue pencil by the editor, which I found a fairly salutary experience. But after a while you learn to live with that and you become somewhat skilled at imposing it on other people as well.

What did the Department do then? Did it set up a program of educating the scientists how to write, or is it just really part of osmosis that Graham or someone would pass on verbal comments ...

In later years we had a Research Management Committee and this really derived from developing structures for the research scientists in the organisation. In the early days, people were just appointed as research officers and they often just reported to the chief of the particular branch of the division in some way, perhaps through a chief agronomist. Then there was stream created where there were principal research officers who would then have a group of research scientists under them and would gradually nurture them and mentor them and develop training. From the mid '70s we had our Research Management Committee, which had been chaired by

Jim McColl when he was Director-General, which brought together the principal research officers. They then evaluated proposals for new equipment and major new developments of one sort and another and major large experiments. That started to develop a level of standardisation and quality control in the organisation. It was also a period when we had our Research Centres Branch which brought together all the research centres around the State, although the Dairy Research Centre at Northfield was not part of that and ...

It stood alone?

Yes. The horticulture ones to some degree in the Adelaide area did too. I suppose because it was located in the city environment in the general sense, it didn't really need to have the long infrastructural communications that the ones out in the bush had. We got into a very mixed variety of experiments at Northfield. One of the other things that we did that was in some ways very simple, but it became very important for the industry, was freeze branding. By using a branding iron that was cooled in liquid nitrogen, you applied this to a dark coloured area of the cow and it killed off the follicles that produced the colour but not that part that produced the hair, so you finished up with a white haired brand on a dark background of whatever colour the cow was. Since the Northfield herd was by and large a Friesian herd, which had a fair amount of black on them, it was reasonably easy to get white hairs on them, get white numbers. Later on a number of people took on doing that job contractually for the dairy industry. Sometimes they were herd recorders. They would get access to liquid nitrogen, often in relation to the liquid nitrogen used in the artificial breeding system, and they could carry that around in appropriate containers and would have a set of branding irons. As dairy herds got larger it became more difficult to identify cows. When the herd was about 30, you probably knew them all by sight or by name, they were all friends of the family. When you started to get 100 cows, you really had to identify them some way or another. That really boiled down to plastic ear tags which weren't much good if you happened to be at the back end of a cow, which was where the milk came from and you really needed to know which cow you were dealing with, or else you could put the freeze brand on the back end of the cow. Someone slightly facetiously had one of our cows actually given a number plate: it was SA273 or something like that. [He] put the number on one side [the right] of its tail and the SA on the other side [the left] of its tail, which matched the old South Australian number plates.

That brought out the fact that there was quite a strong camaraderie among the research scientists. When you are in a creative environment it is much easier to develop that, and we were in a creative environment. We were creating from a large area of relatively unsubdivided what had been cereal country, a dairy research centre, so we designed a system of 10-acre (4 ha) paddocks that were all of equal area, and we laid them all out. We had as one of the farm

staff, a guy called Nugget Hill who had 12 children and whose wife had only just died and he was still looking after the last of the children. His principal delight in life was fencing. His other principle delight was being down at the Cross Keys [Hotel] after work [where] he was given to a generous consumption. But he was an exceptionally good fencer and he worked very hard to lay out that whole structure. It's almost a memorial to him. Some parts of it were difficult. For example, a lot of the posts were creosote protected and the creosote tends to result in allergies for people handling them. So he would handle [them so] he'd put up all the posts in winter when it was cool and they were less volatile from the creosote, and he put all the wire on them in the summertime and he created this series of paddocks. We also had to get laneways built that wouldn't get bogged with the cows, so we had a system of lime stabilisation, which was effective. We finished up with quite a fine arrangement which, of course, didn't last more than about 20 years because ultimately the area had to be subdivided or will be subdivided. Even now that particular area isn't yet subdivided, although it has had the fencing taken out of it.

[25:30] You had both sides of Fosters Road?

Yes, we had a large area on the eastern side of Fosters Road, what is now Oakden. That was a particularly heavy black soil, very hard to work in the wintertime. On one occasion we had four tractors bogged in the paddock, each trying to tow the last one out. A difficult area. Some of that ultimately went to the Blind School; part of Sudholz Road was re-directed through it. The rest of it has become the subdivision of Oakden. There is a large pond which provides a degree of remediation of the stormwater in the middle of it and with the black soil it is a pretty effective water-holding facility. I must say I would not, because of the cracking nature of the soil, be terribly enthusiastic to buy a house there but it seems to have developed as quite a nice area. Indeed, the old diary is now a picnic area.

You mentioned Sudholz Road being re-directed: how far would it be northeast of Sudholz Road that would you have gone? The school ...

The Blind School and an extension of the Institute of Medical and Veterinary Science were originally part the Northfield Hospital Farm. Indeed, all of the IMVS area had been part of the Northfield Hospital Farm as had Strathmont Centre. Strathmont Centre was built at about the time the Department of Agriculture took over the area, although we retained one separate paddock, which was called H1, Hospital 1, which was on the corner of Fosters Road and Grand Junction Road. To the best of my knowledge that paddock isn't built on yet.

Not yet. Did you go as far as Blacks Road, going northeast, as the next major road from ...?

Yes. It had gone to Blacks Road and when Sudholz Road was extended that cut off that area.

Just getting a visual impression of how big it was. On the west side of Fosters Road ...?

On the west side of Fosters Road we went ... The southern boundary was Redwood Avenue. We had through the middle of it Folland Avenue. The area between Folland Avenue and Redwood Avenue went down to the back of the Northfield High School and what were the Northfield Wards of the Royal Adelaide Hospital and the Morris Hospital. The Morris Hospital was a hospital in later days for paraplegics. Much of their activity involved using arm strengthening and they got into a lot of archery and were much given to flying arrows in air aimed at targets which [they] generally missed, pierced the plastic covering over our silage sheets, which we had some concerns about. But we had a whole range of interesting interaction with the various communities around about because we had the Blind School, we had the paraplegics, the Northfield Wards, we had Yatala Goal, and we had the Mental Hospital. On one particular occasion we were out – we'd mowed a paddock and were out baling it and the farm staff came up in a dreadful tizzy because they were going along with a baler and they just barely avoided baling up a dead mental patient. He'd apparently had a heart attack or something and died in the paddock. That matter was quietly dealt with by the hospital, but it certainly worried the farm staff quite considerably.

[29:50] You've got this impression of this very big open expanse with a few of these other facilities, institutions, nearby ...

In the very first days of establishing Northfield, perhaps even before I got there because I got there a few weeks after they had opened the laboratory, but they had to establish gardens around the laboratories so they arranged for mental patients to come and pick up all the stones from around about, because there was a layer of stones around the laboratory just after it was built. So the patients all came over and they were asked to pick up stones. The main problem was they picked them up and walked up and down with them. They didn't do anything else with them, like put them in a heap, so eventually that was recognised not to be terribly satisfactory as assistance.

Again, when we first started we were required to take our milk from the dairy herd, which the hospital had previously run, around to the hospital. It was used in the wards. But what tended to happen was that you had milk cans full of milk going off that were not refrigerated, lying around all over the place. The hospital eventually decided that if they bought bottled milk it would save a lot of problems. At that point we then sold the milk to Farmers Union, which was a far more sensible arrangement anyway.

But the farm itself was very run down at the time it was taken over by the Department of Agriculture. It was covered in artichoke thistles; the fencing was terrible; it really had been very much constrained in terms of any investment. The other issue was that we initially used the old farm manager's residence for offices. It had been very badly damaged in the earthquake of

1954. It had not been further improved by the possums getting into it and then the possums running around the picture rails as a convenient place to get purchase. But it was about the only building there that was habitable so we decided that we had better do it up. It had been condemned so we couldn't ask for it to be done up by the Public Buildings people. We decided to knock all the plaster out of it and we then proceed to mix our own mortar and plaster up all the cracks and all the rest of it. This didn't give it a terribly good finish because a lot of walls were not terribly well aligned by this point. So we sought advice and we got advice from the father of Dean Brown, who later became the Premier. Dean Brown's father was a hospital architect. He suggested that if we were to use dyed hessian we could stick that on the walls and that would cover a multitude of sins. So we went down to Commission Dyers at St Marys and selected a reasonably lurid range of hessian which we proceeded to put on the walls. The first piece we got up was pretty wrinkly but then we discovered that if you put the hessian on the clothesline that was still out the back and got it nice and wet and then glued it up then it would shrink and that gave you quite a good finish. So all the walls, or most of the walls, were bagged up with hessian and that helped hold the plaster up subsequently (laughs) when the building continued cracking a bit. After it was only about 15 years later that the Public Buildings were invited to paint the building and came in and started to paint the hessian, and discovered they used an absolute enormous amount of paint. But it created the ... [set of offices we needed.]

**[33:25] End of Side A, Tape 2
Tape 2, Side B**

[0:10] John, you were saying there about building this new headquarters type ...?

The same thing was also evident over at the laboratories when a lot of the new young agronomy staff were appointed. They didn't have specialised plot equipment so what they tended to do was try to find out what were the current ideas that people had in other places and many of them built their own equipment, welded up pieces back and forth, and developed their own particular requirements. So there is this story that any new research scientist had to go out and build his own equipment before he could get started. But some quite interesting plot harvesters and things of that nature, perhaps using vacuum cleaning principles and that sort of thing, were constructed in the barn at Northfield laboratories and used for fieldwork. Again that's part of having ownership and commitment and using initiative rather than just waiting to be given a financial sum of money to go and buy something.

The laboratories themselves, were they state of the art? People have said, 'We built laboratories'.

The basic architecture was that of a high school, but they were fitted out quite nicely and there was good scientific equipment in them. The Department had never [previously] really had laboratories, apart from the little dairy laboratory in Gawler Place, so it was a very new thing for the Department. Previously if you'd wanted to something you might try and cadge a bit of

space on the Waite campus from the University of Adelaide. But about that time a whole new group of young scientists came in with the creation of the Commonwealth Extension Services Grant and the gradual growth of the R&D corporations. You had the Wheat Research State Committee and the Wheat Research Council, which was the Federal equivalent. You had a similar thing soon afterwards in barley and each of these funds would allow the appointment of new scientists, usually for two or three years, and at the end of that time when their money dried up, you sent a message around to the Treasury saying that, let's say, 'Dean Brown's fund from the Wool Research Trust Fund who's been employing him for the last three years working on dairy cattle in order to get experience in digestibility, that's expiring. Please have the Treasury pick up his salary'. And cheerfully they did, which of course these days they wouldn't do at all but it resulted in quite a big increase in the research capability and capacity of the Department. Marshall Irving, who was the Director of Agriculture in those days, encouraged that quite effectively.

There must have been some sort of compliance within either the Public Service or the government for this to happen, for the Department to expand in such a way?

I don't know about compliance but there was a recognition that agriculture was an important part of the economy and that you couldn't just keep doing what grandfather had done: there was a need for new technology. They didn't, back in those days, use the word innovation but that is really what it was all about. There was this commitment to build up a research capability in the Department.

Was there some reluctance though that it might become too top heavy, too research oriented and ...?

I don't think that was an issue in those days because increasingly farmers were beginning to be quite interested in [research], particularly in some areas like new wheat and barley varieties. Farmers will take on those things very quickly. So it resulted in a rapid increase in yields of wheat and in the efficiency of production so that the cereal industries have grown in efficiency. Statistically it can be shown that they have grown more at a higher level of efficiency than have the manufacturing industries in terms of new technology and adjustment and so forth.

[4:25] These extension services – you're talking there about the '50s and into the '60s?

Yes. That was Commonwealth money. Extension services was interpreted pretty liberally so some of the people were out in the field doing extension work, others were doing the research work which would lead to the extension. There was a fairly simple idea of how all this fitted together: you had the scientist who produced a scientific outcome which was perhaps a pearl of wisdom that could be given to the Extension Officer who then went and spread it to the farmers and hoped the farmers might find it attractive. It was a very linear system in those days and didn't necessarily have a lot of input from the farmers in the first place to finding what it was that ought to be done. That has very much changed now so that the whole interaction and the

research really has to start with much commitment and ownership by the farmers. As the farmers have had more investment in research and development corporations, they can see the levy being paid [from the] cheques that they get. Then they're much more involved in determining what research is to be done and where and how. That's been quite a useful development.

[5:35] Do you think farmers, I'm thinking here especially of the '60s into the mid '60s, your early career: were farmers accepting of the Department? Nowadays they have more of a government versus us sort of concept?

Generally speaking we got on fairly well. You would find some farmers who would say, 'If you were any good at farming you wouldn't be working for the government', which is a very easy throw-away comment to make. But certainly the farmers we dealt with, [particularly] the ones that were in the Agricultural Bureau, which has a very long history and is very important in South Australia (nothing quite similar in other States), they were quite sympathetic to research. Their own origins back in the late 1880s were to develop new science and share it among themselves. What they were now saying was that the government was also helping in that process. There were lots of opportunities for the scientist to talk to the Bureau members in the various locations all around the State. Of course, the Bureaus themselves determined what they wanted to have at their meetings and field days and so forth. That was a very much farmer owned. That has been a very successful movement. The Bureau movement didn't always include the top farmers. It included the good farmers who had a commitment to their fellow farmers: there was also quite a strong commitment of sharing among the farmers in the Bureau.

That's an important aspect, the Bureau.

Yes, I think so.

The book by, is it Cath Guerin? [Caroline Guerin]

Guerin. That's not the correct [first] name, I'd have to have a look.

I'll correct the record later.

Yes.

[7:45] In your own experience, how often did you get out and about? You were describing earlier some experiments that you were involved in, the programs. Were you out and about meeting farmers, and dealing with farmers on a regular ... ?

Yes. About three of four things would happen. You might be doing fieldwork on a farmer's property so you would get to know a number of specific farmers quite closely. Often they were the leaders in their local communities. Sadly most of those are no longer with us. They would tell you their philosophies in life. Often you'd go and have lunch with them, they would invite you in for lunch, share your lunch whatever. There was one at Meadows for example. He believed in a good bit of hanging now and again. He had known two or three people that had

been murdered and he believed a real good hanging was ideal. This was slightly mind boggling and broadening of the mind for some of our younger agricultural scientists. Other blokes were earnest young dairy farmers trying to raise a family and get established. One that we were involved with had made quite a bit of money, hard money, by growing a small patch of strawberries, gradually built up his capital, built up a dairy herd on a small area of land, improved its fertility, and became quite successfully established and was keen for us to do some plot work there. So that's one set of people, the farmers that you actually dealt with.

Then the next set were those that you might talk to. They would invite you to an Agricultural Bureau to talk about some aspect of your research or they might invite you to a field day to, say, do a demonstration of freeze branding on somebody's herd (people would come in and be organised through the Bureau) or the hay surveys that I talked about earlier.

Then you would have groups of visitors who would come to Northfield. You would arrange a program for them: look around the laboratories or perhaps [first] look at the laboratories, and then have a light lunch and look around the Research Centre farm and see some of the farm work that was going on, farm research.

Also, you would sometimes get visits from consultants. We were starting to get one or two consultants from the private sector. They would bring down their own clients in the same way that a visiting Agricultural Bureau might call, except the consultant would determine more specifically exactly what they would like to discuss with the departmental people. We got to know a number of agricultural consultants: John Whellams was one down near Victor Harbour. That area had quite a big productive dairy cattle population and a number of the people down there used consultants. [Consultants], of course, have now become much more mainstream in agriculture than was the case in the 1970s.

[10:45] Where did they come from, in the sense of ...
The consultants?

... it was a new trend and ...

[Some] of the consultants actually came from New Zealand. They often had training in valuation rather than particularly in agricultural consulting, although they would have an experience with, say, dairying or whatever they were doing. Some of them also came from Victoria where there was a very big dairy industry. They were only in particular areas. There might also be one or two in, say, the wool industry. But there were not very many of them.

But did they see an opening as if there was a gap between what the farmers were doing and what the Department was doing, and the need for specialists?

I suppose they would spend much more time with the farmer and they would also have a broader range of skills. The departmental officers tended to be, say, an agronomy adviser or there might be a dairy adviser or there might be a soils adviser, whereas the consultants would have – they might have less specific information but they could see across the breadth of those various areas. They would also be involved in the financial side, while often the technical advisers in the Department were not necessarily strong in the background of financial management. So the consultants were good in terms of developing budgets and gross margins and so forth. Although in time the Department also developed a farm management information system in its Economics Branch, as it then was, which encouraged farmers to send in their own information. It was then run through quite an early computer program, probably all done with punch cards. The whole group of farmers were listed in order of profitability but with all the names eliminated, except they would show each farmer which was one was theirs in the list of names so they could see where they ranked in terms of the group. Meetings would be held among the group of farmers and after a little while they were all confessing as to which ones they were. They cheerfully talked about it, quite openly really. That was a very effective program that was run for some years. I wasn't closely involved with it, but it seemed to have a pretty high profile and was well regarded by those that were brave enough to be into it.

That aspect and this notion or new trend of consultants and so on suggests that farming, even back here in the '60s, '70s, is becoming ...

More of an economic exercise and less of a lifestyle. The point to realise is there are now, in many ways, far less farmers running much larger areas or much larger enterprises than was the case just after the war. Just after the war people were barely moving from horses to tractors. When I was young, we only had 30 to 35 cows, well they were all sold of in the late '50s, but where 35 cows would give you quite a reasonable income in the late '50s, you now need 400 cows. You might [now] have a very large rotary dairy and a big investment in the dairy, whereas I can just barely recall our family milking by hand, and just tipping it into cans and it being hauled off.

One of the underlying themes in this project, of course, is to capture some of that feeling for the changes in agriculture and how it has evolved over time.

The same thing was true of the Hospital farm. We learned, when we got there, [that] it had a milking machine. We learned the only way that they had actually got a milking machine was because originally they had [the dairy] because it would occupy a large number of mental patients milking cows, pulling on the teats you might say. The manager of the dairy had been allowed to spend up to £5 per time, so he kept spending £5 at a time until he had the total components of a milking machine and then put it all together. This was how you had to learn

with living with the government rules. No point arguing in about them: you had to make them work for you.

[15:20] Were you involved in setting rules?

Not really in the regulatory environment. That was done by different people in the Department. In fact the Department as a whole tended to try to avoid imposing and prosecuting with regulation, but rather to establish regulation and then through extension and community peer pressure encouraging people to meet the standards that were required, in order to avoid getting a confrontational attitude which you could develop if you came down hard and fast. That meant that the Department was sometimes seen by people from, say, other departments as being perhaps a bit weak on enforcement. But the overall thrust was that it was better for the community to accept that they gradually did have to lift their game; there were reasons why standards have to be met; and you gradually improved the quality of things while maintaining a reasonably positive relationship with most of the farmers. That's where things like Soil Conservation Boards were important because they were composed of community members. They dated from the 1930s. If a farmer wasn't really doing the right thing, then it was actually the local members of the community, the Soil Conservation Board, who would go and bring pressure to bear, maybe in the pub over the bar, to encourage the guy to get with it and realise that he did have a serious erosion problem, it wasn't impossible to deal with it and they could offer some suggestions and help. So it was very unusual: there might be only three or four prosecutions a year that the Department ever made under its range of regulations.

So it's education before enforcement?

Yes. Seemed to be a more constructive way to get things in place.

And is that something – we're making a bit of a quantum leap here I know – but is that something that continued on with the Department?

I would say yes. I would say it probably has in its present manifestations.

And in your time as Director?

Yes, and even in the current day. Primary Industry and Resources still very largely follows that perspective and still gets some degree of criticism from other departments that might take a more zealous view of regulation perhaps.

[17:50] I was thinking of you've got to apply it across such a wide range as well. You mentioned soil, you've got quarantine ...

I guess the area of animal quarantine is the area in which there is quite a hard line taken. If you lose control of an animal disease outbreak then you have a real problem. In terms of some of the other things such as milk quality standards and all the rest of it ... I well recall the story of somebody's milk from Eyre Peninsula. In those days there were a few people who used to milk

cows on Eyre Peninsula. They put the cream on the train which took it down to Port Lincoln where there was a butter factory. If you had a cream can that was rusty, then you were told to get it re-tinned. If you were found two or three times to have a rusty cream can, the same rusty cream can, there was actually a right to spike it, that's put a hole in it. I well recall seeing a letter that came in that said, 'You guys have spiked my cream can and it's not fair. It's very hard to make a living out here. The railway station burnt down in the bushfire and my cream can had to stand out in the sun on the train. The train was late, and the cream was off. Then you came along and spiked my can, and how terrible it was'. We didn't of course see Eyre Peninsula as the hot-bed of the dairy industry, but they're the things that you came across.

[19:30] So a bit of an informal education that one.

Yes.

Don't do it again.

Yes. I don't think that person was a long-standing participant in the dairy industry but it highlighted the struggle of people trying to earn an honest living as best they could in difficult environments.

Your comment about animal quarantine, and thinking about fruit quarantine as well ...

Fruit fly, of course, had a long-standing awareness in Adelaide from about 1947: the border checks, fruit fly road blocks and so forth. People understood that. They also understood the fact that in most of the city you could grow fruit trees fairly easily. It was at a time when buying fruit still took quite a bit of your salary, so a lot of people had their own fruit trees. They also knew that their cousins and aunts in Perth couldn't take fruit from their trees because of Mediterranean fruit fly and the ones over in the eastern States couldn't take fruit because of the Queensland fruit fly. So they enjoyed their own fruit and realised they were probably fortunate and were reasonably comfortable with the necessity of the occasional fruit-fly outbreak having to be dealt with.

It's very hard to police animal disease, fruit fly etc. You've got such a big area in the State itself and Australia.

That's true. But there were regulations about carrying of livestock. You had to have travelling waybills if you were carrying livestock around. You had to have permits to go interstate with livestock. That whole area was fairly tightly policed and that led to things like the Northfield Pig Research Unit and the establishment of minimal disease piggeries so that instead of pigs being something down the bottom the garden that you fed on skim milk and old stale bread you got from here and there and the dregs of anything you could find, they moved to be an industry that had sound nutrition. One which was maintained really in a quarantine environment so they were minimal disease piggeries. You couldn't just walk into them. You actually were very

careful about how you introduced any new livestock into those piggeries. You maintained them as very much a closed system. The Northfield piggery was one of the first to do that. It had its little Northfield Pig Advisory Committee. They met every quarter. When I was Officer-in-Charge of the Research Centre, I used to belong to that. There were these three pillars of the pig industry. We discussed the research and I still see some of them around, down at the Show for example, albeit they are now the elders of the community.

[22:40] The piggery was established over on Grand Junction Road?

Yes. It was established on Grand Junction Road just near the electricity sub-station that is on the corner of Junction Road and Fosters Road. It only ever had one manager. That was Paul Heap. He helped establish it. He lived in the house next door. Again took a very personal and creative interest in developing it. It had a production unit which was nearer to Fosters Road. Further down it had a Pig Health Unit, at some distance, so that you didn't run the risk of the disease research getting tangled up with the production research. It had a whole series of feed silos and all the grain for the Research Centre that wasn't needed for the cows went down to the pigs, so we had a certain amount of self-sufficiency. We also had interactions with Roseworthy College too. One year they had a very good harvest of hay so we actually carried 20 000 bales of hay from Roseworthy College down to Northfield. We were all involved in stacking hay all over the place. We developed quite a good series of hay sheds. Unfortunately, the mental patients developed a taste for setting fire to them, which was very therapeutic from their point of view but was very irritating from our point of view. When the *Sunday Mail* then said it was due to wet hay, we knew damn well it wasn't due to wet hay. We could see the mental patients admiring the spectacle over the fence as the Fire Brigade was putting it all out. We had that happen on two occasions. We hadn't previously had high fences. It meant that we had to put 6 feet chain mesh fences with barbed wire around the top around all the haystack areas. I guess the precursors of the high level security that's developed much more widely around the country these days.

[24:30] Were you doing that, you and the other staff, doing that physical yourselves, stacking the hay?

Yes. The research scientists were involved with that. It was important also to get an appreciation of working with farm staff. The farm staff should not be regarded as people out there, just doing the hard work [while] the research staff [were] swanning about in white coats. Farm staff really liked the challenge of the farm. There were four seasons: there was seeding, there was sick leave, there was harvest and there was holidays. When the seeding was on they'd work like galley slaves getting the crop in. They really liked the challenge of getting that done. When there was harvest they really liked the challenge of getting the harvest done. They were all members of the Australian Workers Union so in a sense there was this industrial patina over it. But when it came down to those two major functions they really didn't worry too much

about the finer points of the constraints of industrial relations. They did what they thought had to be done and we all did it with them. We'd have one guy driving the truck, and two or three people on the back of it stacking the bales. We'd rotate who was driving the truck – you couldn't have an environment where the research scientist spent all his time sitting on his backside driving the truck, that wouldn't go down at all well so we'd all share around. That was fine. Got good relationships with everybody that way.

[26:15] That's an area ... agriculture is an area where man-made rules don't necessarily fit. There are seasons and what needs to be done and ...

Yes. Again, of course, much of that these days is much more mechanised than it was in those days. Those days we used the conventional square bales. Now there are these very large fodder rolls which are pretty largely handled mechanically. They may well be encased in plastic anyway so that they don't need to be stacked in quite the way that hay sheds used to be made. Although the bales themselves are convenient units to feed out, they can also be very heavy, particularly if they happen to get wet out in the paddock and you've got to turn them all over to dry them before you can cart them and stack them.

The physical intensity: you've got bags of wheat, bales of wool, hay bales ...

Yes. We were pretty much out of bags by the time I got to Northfield. We had a series of silos. The problem with silos was you had to keep the weevils out, so you needed to be pretty careful about hygiene. We looked after that fairly well. Then we used to grind our own grain to make various feed mixtures, partly for experiments and sometimes just for production, depending on whether the research was about cow nutrition or whether it was mastitis disease research for the herd. Again we had creativity there, where you'd design equipment that would take the milk from each separate quarter of the cow into a separate container so you could see what milk came from where. You just had a simple crate with four glass jars in it. It wasn't very expensive. We went to some place that could weld up good crates and cover them with plastic and that was fine.

[28:00] You've provided a video for me to have a look at on some of the Northfield activities and the 20th anniversary of Northfield but for the record here, how big was Northfield? Numbers of people and you could talk about physical size.

It was about 150 [200] ha as I recall. I probably should give you a fact sheet about it, which I've got a copy of somewhere. That would give you all the statistics of it and ...

Are you talking about a large number of people working on the site, a mix of ...?

The farm staff tended to be about eight, but bear in mind they were rostered over seven days so they weren't all there at the same time. There were two rostered to milk the cows. Basically, there were two regular dairy persons and the rest of them would do some dairy work when the regular ones were off and they had to be paid time and a half on after hours. They got double

time on Sundays. There was a Department of Agriculture conciliation award that set the pay rates. We'd negotiate that with the AWU from time to time. Occasionally you would have a meeting in the Conciliation Court, but we never really had any great problems industrially. We had one guy that was a maintenance man. They thought the maintenance man should be paid more so the union instructed the maintenance man to work to rules. That was OK. He worked to rules except when we had a major breakdown in the middle of harvest and he stopped working to rules and repaired what had to be done. Then he would go back working to rules. We had a reasonably good understanding there. Ultimately we reclassified him so he was no longer eligible for that union. He was eligible for a different union and he got a higher rate of pay anyway. In effect the management reconstructed him to fix his problem. This particular individual had been trained in the British Army. He'd been in a Tank Corps and had been involved with maintaining very heavy machinery, but was also a very creative person. He quite would rise to the challenge of building new little bits of equipment for you. He wasn't really formally trained, but he had a lot of creativity and that fitted in well. He lived on the Research Centre. In fact I lived on the Research Centre for some years too.

[30:45] I wanted to ask you that, where you were based.

Initially after we came back from Oregon we lived in an apartment down at Mitcham. My wife used to ride her bicycle up to the Waite while she was doing her PhD and I would drive over to Northfield in the car that I'd brought back from Oregon. Then after a while my mother and her sister decided that they'd like to make the grand tour of England so for about nine months we lived back on the dregs of the family farm which I found difficult because it was, particularly in the winter, dark when you left and it was dark when you got home, so that it was only on Saturday and Sunday you could find out what was going on. But we had a guy that worked part-time there that kept things in order. Then we moved back to the Mitcham area again. Eventually it seemed to me like ... by that time we'd got some children so we moved out to a house at Northfield which had been the farm manager's house previously, Bill Bussell who'd died of cancer. They'd combined the position of Senior Research Officer and Officer-in-Charge of the Research Centre into a single position which I then took over. In the morning I'd go up to the Research Centre at 8 o'clock in the morning and meet the farm staff. We would all work out what we were doing for the day and I'd fire the gun, as they called it. Then they'd go off about the business and then the other scientists would come in soon afterwards and we'd get on with the research program. I quite enjoyed that. But it also involved all sorts of after-hours activities like people from Yatala escaping and you'd wonder where they were, dogs getting into parts of the Research Centre and chewing up some sheep that might be over there ... You had to walk quite a difficult line. Similarly, ploughing the paddocks. If it was dry, you couldn't really plough the paddocks on Monday because it was wash day ...

[32:27] End of Side B, Tape 2
Tape 3, Side A – Session of 23 March 2004

[0:24] John last time, the 2nd of March interview, we talked about some of your experiences out at Northfield and the working life out there. I thought today we might look at some of your management positions in the headquarters. But a discrete topic to start with. Perhaps a simple one from your point of view might be the merger of the Department with the Fisheries Department.

That didn't really have a major impact from my point of view. About that time, or just before, there had been established a Research Management Committee which was comprised of the principal research officers of the various sectors of the Department such as livestock, dairy, agronomy, soil science and so forth. The impact of the Fisheries merger was to add a representative of the Fisheries Group onto that research committee. It was research particularly in terms of population dynamics as an important component of managing fish stocks. So we were introduced into that as the research leaders. Philip Sluczanowski, who was a very good fisheries modeller and sadly died of cancer a few years later, and Rob Lewis were involved with that committee. They used to bring forward their research proposals, as did the [other research leaders with their] proposals from the other sections of the Department. They were looked over by the Research Management Committee and, if we could, see any obvious way of perhaps improving the quality of them, or perhaps getting other sections of the Department to have some role and making sure there was appropriate statistical analysis and things of that nature. It was a quality control. Its origins really had been earlier back in Lex Walker's time. Then Jim McColl had reinforced that when he became Director-General.

That's your level of personal involvement with the Fisheries people and the research committee level but for the Department itself, how did this amalgamation work?

Basically the Fisheries people became an additional increment of the Department and they were led with their own Director, who was Ian Kirkegaard at the time. Really were a [further] part-time component to the Department and they came with their own set of political agendas and issues. They didn't really have a strong impact as far as my own role was [concerned]. About that time I became Principal Officer, Research Management and I was the Executive Officer of the Research Management Committee, which was chaired by the Director-General of the day. That function continued later when I became Director-General as well. So the Fisheries process primarily involved policy issues, which didn't have much of a relationship with the people who were primarily involved with the agricultural side of the business.

It's interesting to see now that the Fisheries experiment lasted just a few years and now it's part of the merged new entity.

There was a strong pressure among the fishing industry to get their, you might say, independence from the Department of Agriculture again. That was an offer made at a following election and was implemented. Subsequently, [with] the creation of Primary Industries and

Resources – Primary Industries SA as it originally was in 1992 and then the Resources added later – the Fisheries administrative and regulatory functions were combined with those of the Agriculture group. The research was combined with the agricultural research to form SARDI.

[4:48] We might come back to that when we get into the SARDI story. You mentioned your appointment as Principal Research Officer. Perhaps we should look now at your management positions and so on in Head Office. Your move from Northfield into town.

I had a number of roles of various kinds. I did have the opportunity of going to the first Development Program for Managers of the Australian Graduate School of Management, which was then run by the University of New South Wales. It was the first time they'd actually run that program so we met in a number of different locations. Initially, up in the Blue Mountains; then we also had a section down in Kings Cross for a couple of weeks. It was quite a long program, about eight weeks as I recall. Later ones were shorter because it really was too expensive for them to operate it and for people to go. Jim McColl, I think it was Jim, and perhaps with assistance from Peter Trumble, arranged that we would provide a person to attend and to provide advice to the Public Service Board on what was thought of the value of the program. I found that quite interesting because it meant that you were interacting mainly with people from the private sector. The one thing you discovered out of that was that they had all the same foibles that the public sector also had. They played their own games in many of the ways that [they] were played in the public sector. The course itself was fairly weak in terms of dealing with public sector issues, but it did give me a lot more exposure to things like marketing and financial management and other skills that are not part of the conventional agricultural science training and research management training that I'd had.

I take it from your comment, John, that you were the only person from the Agriculture Department who went on this first course?

Yes.

Were you the only person from the South Australian Public Service?

Yes I was the only person from South Australia. There were people from BHP and CSR and major insurance companies and things of that nature, the New South Wales Railways.

So a sort of change in management, approach to management?

This was the first of the opportunities for people in mid career to get a new training experience, which perhaps might be helpful in terms of future career development. I was probably fairly fortunate to get that opportunity.

Were you at Northfield when that came up?

I was probably doing some work in Head Office. I had also been asked to look at some aspects of research management overseas and did a field trip through North America and Britain in the

early '70s. It probably followed up from that as well. I was fortunate to get a number of opportunities of one sort or another.

[8:20] Your move from Northfield into town then?

I then moved to become Principal Policy Officer, I think it was called. Initially, I was dealing with research management then later I went to a more general policy role which supported a lot of the national discussions at things like the Standing Committee on Agriculture. That's the meeting of the head of various agricultural departments, the primary industry departments, which is held every six months and it's usually followed immediately afterwards by a meeting of the respective Ministers. That introduced me to the policy-making framework which operates between the Commonwealth and the various States and the way in which topics come up, the way in which they often then can be conveyed to specialised sub-committees, say Plant Industry Committee or Animal Health Committee, for more detailed examinations. Things like national quarantine policy would be dealt with in those sorts of environments. I found that an interesting experience to see how that world worked. From about the late 1970s I went to the meetings with Jim McColl as a 'bag carrier' you might say. I used to make summaries of the meetings. I also brought together all of the briefing notes from people within the Department who might have offered specialist advice on the agenda papers that were going out. I became fairly familiar with how all that operates. It probably takes you about three meetings to come to grips with the process and start to learn who the players are but once you've got a handle on it, it's a fairly predictable set of procedures. You then start to play a role of supporting the Director-General and perhaps indicating our perspective with other States as to how we might take a particular approach. That then led to involvement in some specialist sub-committees. One that I was involved with was a thing called ACPRRE – the Advisory Committee for Priorities in Rural Research and Extension. We had commissioned a number of specialised reports on how we might better deal nationally with things like pig research and poultry research to see whether you could perhaps rationalise who was doing some of these things. That proved to be fairly difficult because everybody thought it was a good idea so long as they weren't dispossessed of their particular part of it. Though in later years, when money became tighter, people started to ask the question, 'Should they be investing this much money in some of these fields?'. As the Research and Development Corporations became stronger, they also aided that by supporting some of the leading groups more strongly. So that you then had, say, pig health research tending to migrate to South Australia and some aspects of pig production research perhaps migrating to Victoria. It led to an ultimate rationalisation. We also commissioned other sorts of things. We commissioned a review of alternatives to organochlorines for example. In the early '80s there was not, at that stage, really a strong concern about things like DDT but that developed two or three years later. So that was a useful

framework to set the scene for things that were coming along. We often used to get quite small proposals like 'Should various groups be encouraged to hold a review of research in a particular field'. We'd look at these proposals under the conference program and bless them or otherwise suggest that perhaps they didn't need to meet yet or ... So we [were] a specialised group ... It wasn't [necessary] for the Directors-General and then we just reported to the main Standing Committee meeting on what we suggested. They then generally accepted our recommendations.

And then was it up to each State to implement the recommendations?

Yes, generally speaking that's how the system works. If there's a consensus ... Perhaps we should talk more generally about the Standing Committee structure. If there was a consensus among the Commonwealth and the States on the way forward then that was what everybody would do. If, on the other hand, there was no consensus, the Commonwealth would say, 'We do not have a consensus so we, as the Commonwealth, will do what suits us and the States can do whatever suits them'. Often, the Commonwealth, by having some funding carrots, you might say, could induce a consensus which might otherwise have been difficult to achieve.

[13:35] Were there any cases that come to mind where South Australia said, 'We'll go it alone, or we don't agree with most of the other States'?

None immediately come to mind, but I've not doubt there would be. Some issues obviously were more important for some States than others. For example, if there was a new banana disease and it needed to be eradicated, you could say that South Australia would support that and they obviously wouldn't have to pay any money because we didn't have any bananas. Yet generally there was a co-funding arrangement in which, if there were emergencies, we would try to encourage the Commonwealth to pay half the cost and the States would pay the other half in proportion to the gross value of production of whatever the item was. If, on the other hand, there was a major problem, say in something like the grain industry or the cereal industry, then South Australia would probably have to pay a fairly significant share. We didn't have much problem in that area. Diseases of poultry were often the problem with things like Newcastle disease. That involved quite a bit of expenditure. Ultimately, it's led to the [industries themselves], through Plant Health Australia and Animal Health Australia, now bearing the cost of some of those sorts of emergencies with the governments only being participants and not carrying the total burden on behalf of the taxpayer.

So that industry's contributions there.

Something like Plant Health Australia was a major contributor towards [protecting] the grain industry, which is responsible for perhaps about half of the total cost of Plant Health Australia, just by the dimension of the industry. Small industries like strawberry growers are very minor players, but it is important that they are brought within the field so that there is a reasonably

unanimous approach to how to tackle things like exotic pests and diseases that might come into Australia.

[15:47] Some of that is almost a national approach on many things or a national agreement, national coordination.

Yes there is. Because of the constitutional relationships, generally speaking, the Commonwealth only has responsibility for offshore issues and most of the onshore issues are the constitutional responsibilities of the States. That's been changed a little by the Commonwealth signing various international treaties which then, in response to those treaties, gives them some constitutional right to buy into affairs that previously were seen to be the sole province of the States – things like sustainable development, land management and those sorts of things. Because of the international treaty on sustainable development and the importance of that was starting to play in international trade, the Commonwealth has been playing an increasing role. But it also brings money to the table. The States, of course, are always keen to see how they might access the Commonwealth's money without putting too fine a point on it.

Does that modern scenario differ significantly from when you were first involved, 25 years ago?

The Commonwealth is moving into more fields than it once was in because it has increasingly signed various protocols; some of which are conservation protocols and environmental protocols. For example, fly-way agreements for the migration of birds from Japan to Australia; some of which will, when they're migrating, use particular routes of travel and it gives the Commonwealth some say in where the conservation parks and that sort of thing should be located along the fly ways. There's generally been a move for the Commonwealth to broaden its field of interest over the years. Keep in mind that these structures only started in the 1930s. For the first 30 years the States really operated pretty independently. In fact, the initial bringing of them together was induced by the CSIRO primarily to try to encourage more effective research and to encourage the development of a research network across Australia from about 1934. Since then it's broadened to a much wider policy milieu.

The broader issue in that, of course, is things like State's rights.

You get a certain amount of State tribalism behaviour at some of these meetings. That also brings out the issue of, what is the Minister's position as distinct from what might be the technical position adopted by the Department because Ministers are obliged to take political judgements as well as technical judgements and that can constrain how decisions are reached. There've been a number of recent examples. For example, Tasmania had a Minister who was very strong on animal welfare and very much led the charge on making poultry cages in caged hen environments larger to give more freedom to hens; ultimately, I suppose, with an aspiration of abolishing them altogether, although the other States, because of the cost to the industry, were pretty unenthusiastic about moving very quickly along some of those lines. But you do

see those particular thrusts. The personal interests of Ministers can have an effect on the way that the departments operate.

[20:03] For you personally, and you mentioned ... The term you used earlier – a ‘bag carrier’ for Jim. You were going through that learning curve in the first few meetings and so on that you were going to. Then once you got on top of things, were you taking an advisory role?

What you would do would be to prepare the briefing notes and if, for some reason the Director-General couldn't attend the meeting, then you would actually sit in the chair and represent the Director-General. I did that once or twice. Sometimes it might be quite a short time while Jim had to take a telephone call from the Minister on some other unrelated issue. These sorts of gaps can occur. So two of us would go to the meeting. I would also keep a fairly detailed record of what was going on. In those days I used to prepare a summary of what had occurred on the basis that if you asked a lot of people for advice, it was pretty desirable that you actually told them what happened, so they actually knew their advice was valued and they got some feedback. In those days there used to be a Hansard kept of everything that was said at those meetings. The Hansard came around and was corrected to the extent that was necessary and the resolutions were corrected. Often the formal record took [maybe] three or four months and you couldn't wait for that to come around to send to the troops in the field. They really needed to be getting some fairly instant feedback so we used to prepare short summaries of just a few pages that we sent around. In those days, of course, they had to be dictated and typed up by somebody in the typing pool, then Roneo-ed off and physically distributed. This is all quite different from the way all these things are handled now, electronically, in which the feedback from the secretariat is actually done very quickly so there's not really a need for the departmental people to prepare their own summaries anymore.

But in those days were you very much liasing with staff in the Department?

Yes. You had to know who were the people who could give you advice on particular technical questions. That was fine. So you needed to know a fair bit, but often perhaps fairly superficially, about a lot of other issues besides your technical background.

Did you often get out and about to the regions and the other offices?

You went out and about more, I suppose in terms of some of the research functions that I was involved with. I also got involved with an early approach to corporate planning in the Department. Jim McColl thought that was something that we should get into and in that sense was ahead of much of the rest of the South Australian Public Service. So we prepared a corporate plan, which I still have copies of. I have to say that it was largely written off the top of our heads! There wasn't an awful lot of ownership of it and that's probably, as we learnt, perhaps not the ideal way to go but it was a start. Then in later years we continued the process with much more buy-in and participation by people and ownership of the process.

So you were, in a sense, learning on the job yourself?

Yes, you could say. We also then tried to tie the planning into the budget process so we moved to structure most of the activities of the Department as projects, which might have particular outcomes in view rather than just lumps of money to do good works with. So we moved to a project-based management system and we moved to get an approach to priority setting by saying, 'If you had 10% less money, which of all the present things would you feel least important and should be gotten rid of? And if you had 10% more money, what additional things would you want to do?'. That started to focus people's minds a little bit. All the usual barrow pushing and lobbying came out of the woodwork but it did try to bring some structure into activities and, in fact, things became much more difficult financially in later years, from the 1990s onwards. Of course I was moving out of the Department in those later periods, but following the State government's difficulty in the State Bank affair and the fact that it had acquired very large debts as a result of assuming the State Bank losses, there was a very strong program instituted of constraining expenditure in the Public Service.

There was also the issue of agriculture being seen as, whilst still very important economically, involving less and less of the voting community. You were getting to a point where only say 4 or 5% of the electors were actually involved in some aspect of agriculture. Questions were starting to be asked about why was the government subsidising some of these services and shouldn't the people who wanted advisory services start paying for them? That led to a gradual transition. You can see that today with Primary Industries and Resources SA now having consultants who charge for services, rather than having district agronomists who provided advice to anybody that asked for it.

[26:08] Now you see it as a society of consumers rather than a society of producers in the sense of ... It's a society of commercial entities as far as agriculture is concerned who need to buy in their technological progress, along with their new hardware and software and whatever else. So it very much involved a transition from agriculture being a style of life to agriculture being a commercial entity. That was reflected too in some of the farmer organisations who initially were very strong on 'You've got to keep everybody down on the family farm'. They gradually changed their approach and realised that the future of agriculture really was in commercially successful entities that would be bigger; there would be less of them; they would be profitable; and that many people who were then in agriculture would probably have to be 'adjusted out', as the expression is, or find other careers. Often that came in fits and starts so that if you had a bad drought then that would force people's hands because they would get into debt, which they couldn't see their way out of. The Department also had rural adjustment schemes, many of which were induced by the Commonwealth. That also raised the issues of the extent to which

we should offer subsidies and help. South Australia had a long history of not offering what they call transaction subsidies. In other words, if you were to offer money to a farmer to help him buy hay in a drought, the net effect of that was to increase the price of hay. It also meant that the farmer tended to keep his livestock on the property longer in the hope that he could get feed and retain them until the drought broke rather than off-loading them early while there was still some prospect of a price for selling them and without a lot of land degradation having occurred. We very much avoided transaction subsidies but they were politically very hard to resist. We certainly had Ministers who were under a lot of pressure and the process of resisting demands for those sorts of subsidies [was difficult]. We did have a fodder subsidy funded by the Commonwealth one year and that gave us a fair bit of angst. The problem is that whenever you give anybody anything, you don't necessarily get a lot of thanks for it; and you can get a lot of abuse from all the other people who thought they should have had some and didn't get some.

That's a difficult area. As you say, you've got your natural droughts, floods and all those sorts of situations, the peaks and troughs of production and there's always someone needing a hand out.

The issue is 'What is the risk of participating in a business?' whether it's selling used cars or agriculture. In fact, it's well demonstrated by things like fodder reserves. South Australian farmers, traditionally, have had very large haystacks. They were used to the fact that for much of the time summer was a dry period with very little feed. They had to provide for it whereas in the eastern States there was much less dependence on conserved fodder and they were often less well prepared for the dry periods than the South Australian farmers were.

[29:55] Just going back on to your job as Principal Policy Officer. Just wanted to know, John, where you fitted into the system, the structure of the Department. You mentioned you were working closely with Jim, liaising ...

[I was] in a staff relationship as distinct from a line relationship with Jim McColl. Eventually I also used to go to meetings of the Executive of the Department with the other directors. The staff positions can be difficult positions in the sense that you don't have a major group of staff to help you, although we did develop a Policy Unit eventually, which did have a number of staff, some of whom came in for short-term assignments and some of them were economists, which then introduced me to a new field of endeavour, which I hadn't had much to do with. Other areas you used to deal with were things like Ministerial enquiries and Parliamentary questions. Somebody would write into the Minister and say 'I've got a concern about something or other'. The Minister would then send it down to the Department saying 'Here's a Ministerial enquiry. Please draft a reply'. That would come to my desk and I would then work out who should we send it to and find somebody that hadn't run fast enough and they received this and drafted a reply. I might have a bit of a look at it and then we'd send it up to Jim and the Director-General would always sign such things and Parliamentary questions as well. I also insisted on that in later years. It's important the Director-General does know what's going past.

Some things were delegated to directors within say the plant area or the livestock area and it is important to have clear lines of delegation. I suppose I could be criticised for perhaps not delegating as much as some but you learn fairly quickly who are the people who have the appropriate judgements. You encourage them to sign or in some cases you might sign but you know which ones you have to read and which ones you don't have to read.

[32:30] The liaison with the Minister's Office. This is before the time of a liaison officer working with the Minister? You were in sense a de facto?

No, not in [that sense]. I wasn't a Ministerial Liaison Officer in quite the way they became when we lodged them in the office. But one started to have dealings with Ministers and sometimes, particularly when you were preparing say for Ministerial meetings, you would brief the Minister in preparation for that before you left Adelaide to go the meetings, then perhaps the night before or when you're at the meeting. So one did progressively have an interface with the Minister.

**[33:30] End of Side A, Tape 3
Tape 3, Side B**

[0:05] ... the staff when we talked about your liaison and getting information from people and so on. How did they see this new unit? They'd never had a Policy Unit before?

You had to be a little bit careful that you weren't seen as the alternative wisdom trying to get them. It was fairly important so we tried to get the basic technical information from, you might say, the line management parts of the Department that dealt with the plants and the animals, the Chief Veterinary Officer, whoever it was, or somebody in the region who was responsible for regional issues and that we were not bypassing [any of those people]. It was important to have a pretty close feedback relationship. Equally well, of course, one had to make sure that you used a bit of quality control and it was about that time that I probably got a bit of a nasty reputation with a red pen, which I probably still have! It's to some degree a bit of a joke perhaps but I still always carry a red pen because I find that's useful to highlight things that are helpful and you can pick out in a hurry.

I found people were pretty constructive. We didn't have a lot of difficulty with the Planning Unit and often the Planning Unit had to do things which other people were happy to have them do such as respond to an inquiry which the government might have, preparing the evidence on a particular subject which saved the people out in the field having perhaps to go off line to do some of these things. Often they also involved a certain amount of economics and we had access to skills in those areas.

Who were some of the key people that you worked with in the unit? I'm thinking here over time?

It varied over time but Don Plowman, for example, who has been effectively the deputy to Rob Lewis at SARDI in recent years as the Operations Director of SARDI, he was involved with the Policy and Planning Unit, particularly where it dealt with international issues. Don had a background – originally from the Monarto Commission – in soil science. So he had a broad base and handled a number of projects. Geoff McLean was an economist who is now in Water, Land and Biodiversity Conservation, had a background in horticultural economics and handled some of the horticultural types of activities. Gary Osborne later became the Chief Agricultural Economist. He was very sound in a lot of the agricultural policy sorts of areas. Roger Wickes in later years also became part of it. He took on the role of Principal Officer, Research Management, which I had had, and was responsible for being the Executive Officer of the Review of Research Centres that Jim McColl instituted. Jim's view was that we probably had a lot of capital tied up in research centres. He wasn't sure if they quite fitted our needs of the day and he also foresaw that there would be pressure for the government to change some of them, perhaps to dispose of some of them, particularly the land at Northfield which was 600 acres (243 ha) defended by 160 cows that didn't vote. So he set up this Review of Research Centres and that laid quite a foundation for change. Roger also was Executive Officer for the Cereal Breeding Review and that brought together increasingly closely the plant/breeding activities of the university on the one hand and the Department of Agriculture on the other. They had had a certain tacit understanding that the university was into wheat and barley breeding, although the wheat breeding was paid for by the State government grant to Roseworthy College. The barley breeding was largely paid for by the barley industry. The Department did pea breeding and oat breeding and a lot of pasture [breeding]. So there was a logical split there but we eventually brought them together so that say some of the field evaluation was done by the Department independently of the breeders and it served all the different breeding programs. That's all moved on and in more recent years, of course, to the part commercialisation of those activities.

[5:10] These people you mentioned and the economists are coming in with an agricultural economics background?

Yes. In some cases they might join the Policy Unit for six or twelve months to give them more exposure to some of the policy areas. It was also about this time that we also started to put Ministerial liaison officers in the Minister's Office who could act as a facilitator of getting information and keeping the effective flow of things into the Minister's Office, often responding to quick questions the Minister might have. You had to make sure, of course, that the Minister was comfortable to have such a person in his office. What we found was that we normally tried to put people in there for six months to gain the experience of the political environment in which the Minister operates, as distinct from the technical environment in which the Department operated. Also, the fact was that Ministers often needed responses very

quickly to meet the developing situation. What tended to happen was that at the end of the six months, the Minister was usually pretty unenthusiastic about letting the person go. In several occasions we had to leave them there for another six months because they were doing a good job and the Minister had become very dependent or very grateful to have them there. It did, of course, reduce the opportunity for other people to get that experience.

You'd have to be very careful in your selection: find the right person, make sure the personalities ... The usual approach was to say the vacancy is there, here's a career development opportunity, who might be interested? You would get two or three names, people would put their names forward and you'd have a talk to them and see what skills they had and what their aspiration was in applying for the job and make an appointment.

Did you ever target someone in particular, say person X would be a good person?

We might have encouraged people to throw their hats in the ring but that was never a great problem. Usually we would get somebody that felt like it was a useful experience and some of those people are now in more senior jobs in the Department, in PIRSA and elsewhere. Sometimes we would put in somebody from a regional location because the people in the regions often don't get as much exposure to the state-wide issues. Some of those people moved on to other important regional director jobs or whatever. It was a good experience for them and it also brought a regional perspective that we in head office didn't always have too.

Were there any cases where the liaison officer failed, in the sense of personality clashes with the Minister or ...?

I don't recall any. Each of them would bring slightly different flavours of doing things. From our point of view we really wanted people who would achieve outcomes that the Minister wanted and how they went about it probably didn't matter terribly much as long as they met the Minister's needs and they didn't ruffle the feathers of the people of the Department that they were trying to get assistance from. That generally didn't seem to be a major issue.

I asked you a moment ago, John, about the economists coming along with their own training, their own background through university studies and so on. Did you have to develop some training strategies for people joining the unit? Did you take on a mentor role?

I did a little bit of mentoring I suppose. We used to see the economists as a slightly different group. We used to loosely refer to them as the 'London School of Economics' because they'd created for themselves their own little tea and coffee space and somehow or other they extracted a few armchairs from some place in the Public Service and had arranged these closely in a little circle up on their floor of the Grenfell Centre. At least one of them was a large brown armchair and it looked like a bit of a gentlemen's club so we used to always slang off at them a bit and say, 'The London School of Economics is meeting again'. If you wanted to find one, you went up to their little coffee circle and they were probably up there drinking coffee and

having deep and meaningful economic thoughts! (laughs) We may have even pushed that slightly to the point where they almost got a bit aggravated about it but it was a different skill base from all of us people brought up in technical agriculture. Jim McColl, who had quite a strong economics background, pressed the importance that we be much more aware of what finally drives farmers. In other words, there's got to be a dollar in it or they're not going to really be able to afford to do things.

[10:45] How was Jim's view accepted by the Department? He's pushing through this unit and ...

I suppose Jim came from outside and his initial appointment was greeted with something of a reaction of 'Who's this?' because his background was from an early career of consultancy in northern Victoria and a period in the University of Melbourne. Everybody accepted that and there wasn't a lot of difficulty. Jim himself proved to be a person of considerable moral fibre, I suppose you might say. Indeed, he had his own difficulties with Ministers that I imagine he's probably told you about.

In passing. (laughs) Here we'll basically focus on your own working relationship with Jim. How did you find working with Jim?

I sometimes used to get into more detail and Jim used to criticise me a little bit by saying, 'Don't worry quite so much about the detail and get the main principles right'. We had a pretty good relationship. I often drafted a lot of material up for him that helped him do his job. It's important, when you're in a position, to recognise that the people you are working with have their jobs to do and if you can help them achieve their jobs then that helps keep the show on the road. I used to have to do quite a lot of drafting work and that sort of thing. I became reasonably good at writing summaries of meetings so that you could know what was going on. I used to fuss about making sure everybody understood what the processes were. Once they agreed and knew what the processes were then things would work fairly well without you having to worry too much about them. If they didn't know what the processes were, then you could be all over the place and things might come a bit unstuck. I tended to be a bit pedantic about ensuring everybody is agreed on what the processes are that we're going to use for some particular purpose. But Jim didn't seem to have a problem with that, particularly if I was carrying them out, which let him get on with doing something else.

Was there a meeting of minds in the sense of how Jim saw agriculture developing and what he wanted from the Department?

He came from a different approach and background to the Department in the sense that he was not brought up in the Public Service. He had fleetingly had a job in the Victorian department just after graduation but he took, perhaps, a broader view of the role of the department whereas we had always had our careers inside it. That was probably quite useful. He also brought more of an international focus, which ultimately helped to underpin the development of Sagric

International. In later years, it developed a life of its own, with its own board and it became a separate entity and, indeed, was ultimately sold off.

[14:11] Perhaps it's an opportune time, John, just to explain a little bit about the policy documents that Jim got you to work on – the strategic directions and the other publications you have passed by me.

Jim believed that we needed a few basic documents that set out what it was the Department was on about. Indeed, they were to some extent, driven by the pressures from people like the Treasury and the Public Service Board saying, 'Why do we have a Department of Agriculture?'. Indeed, even before Jim had arrived, Marshall Irving, the previous Director-General had been obliged by the Public Service Board to generate documents that basically [responded to] the question, 'Do we need the Department of Agriculture and what do you do?'. There was always this necessity to try to highlight the economic significance of agriculture in an area, particularly so, following the Playford era which was very strong in industrial development, that there was still a role for agriculture. That became obvious if there was a drought because the South Australian economy was often somewhat debilitated when agriculture was having a drought. The impact was still there but we needed to be able to defend our role and justify ourselves, quite legitimately so I guess in the political environment, as to why we were needed to provide the services we were seeking to provide. There is always a period of evolution where these services gradually change in response to the changing nature of industries. The size of industries; the chemical treatments became much more specific; the equipment became much larger; the tractors became much bigger; the ability to do traverse more country in a smaller time; working with smaller margins, because in terms of trade we were always going against the growers and whilst they always hankered for the good old days, they were never going to come back. It meant that the South Australian farmers continued to increase their efficiency and certainly the cereal growers did so pretty effectively. The woolgrowers across the nation adapted much less well to change. It could be argued that the floor price scheme almost acted as a disincentive for them to become more efficient because it gave them more or less a guaranteed income as long as they kept producing wool. When the scheme collapsed, they were exposed to the hard economic realities of the market place.

You can't go back to the good old days but the policy documents you were preparing were sort of ... They would serve as something of benchmark documents, trying to set out where we're trying to go, what is the role of agriculture and where do we see the opportunities for development. Initially, those documents were developed at the broad-based South Australian style and then in later years we started to develop them for individual industries. Then subsequent operators in the Department of Agriculture and in PIRSA have developed advisory boards to help the continued development of those industries. They've also brought in a closer relationship with

the post-farm gate aspects so that wool was not, any more, seen as something at the end point of which was lodging a bale in a wool warehouse at Port Adelaide. Rather, addressing what was the end point use of the wool. The same in where did the milk go or what's the market for fruit. Certainly when I was sent to [make a study tour overseas] I was looking at some of these issues and I was quite startled by seeing some Australian citrus, for example, that was dodecahedral (which is 12-sided) in a market in Singapore where it was obvious that the growers had tried to jam extra oranges in the box and had jumped on it. Dodecahedron so that the space that's used is formed to occupy the least space when they're closely packed together. These oranges had clearly suffered from that. The next day I had been in Germany, in Hamburg, and had gone to a Saturday market and the quality of the fruit on display was really quite magnificent (supported of course by the Common Agriculture Policy), but it was quite a contrast. Also, I was getting the message that Australian suppliers were lovely people but were pretty unreliable and would only export when they couldn't sell it for a decent price on the local market and if they got a good price locally, well, they disappeared. So they weren't consistent providers of produce and sometimes their quality was pretty variable because there were some people who would buy up cheap second-rate food in Australia and then try to on-market it overseas. That didn't help our quality image terribly well either but much of that has changed of course now.

[19:55] The documents you were preparing, it was interesting that you had actually published them or the Department had them published and printed out.

Yes. They weren't published in large numbers but they were made available to Members of Parliament, senior public servants, people like the Advisory Board of Agriculture, leading officers of agricultural supply houses and to the banks. We were particularly concerned to try to develop a better understanding of agriculture with banks. That was a major issue when there were droughts on. During that period, there were meetings with the heads of the four major banks with the Minister, and I used to sit in on those meetings. It had to be said that only one of the banks really understood the detail of what was happening out there and that was the National Australia Bank which had a strong technical background, particularly from an individual called Chris Shearer, who was from South Australia and had been involved with the development of the so called Ninety-Mile Desert to the Coonalpyn Downs under Hugh Robinson and Company before he joined the National Australia Bank. Often the general managers of the other banks were not really *au fait* with the detail of what was happening agriculturally. They often had branch managers who knew quite well, but they often had branch managers who didn't know very well either because they were doing their two years out in the bush after they'd previously been the manager of the branch at Edwardstown or somewhere and didn't have a lot of appreciation of the finer points of agriculture.

[21:50] It's interesting because the image portrayed is often that the local bank manager would know the area, know the people, know agriculture, know farming.

They varied a lot. Many farmers depended on their bank manager for guidance and the way forward and wouldn't take any decision without consulting their bank manager. There were some bank managers in the drought that would come up with very creative and helpful solutions for people who had considerable difficulties. There were other managers who probably helped some farmers get into [difficulties], out of their depth, because there was a time in the early '80s where bank managers were given promotion based on how much money they loaned out, so that gave them an opportunity to lend a lot of money. It was often based on the capital value of the farm if you wanted to repossess it, rather than on the farm's ability to generate the revenue to support the loan. During the drought, of course, there was very little revenue and often the properties themselves might lose value. Then the bank was faced with what to do with the property which was worth less than the extent of the collateral that they'd loaned [to the farmers]. In many cases they just left the farmers there, on the grounds that they couldn't look after an empty farm. Then when things improved, they tried to sell up the properties. Forced sales of farms were socially very difficult and there were occasions where local communities would rise and physically stop banks trying to take possession of properties. I can think of examples on Kangaroo Island where that occurred. Within the Rural Assistance Branch of the Department, we loaned money out. A lot of the money actually came from the Commonwealth and then we added a small increment of handling cost and either loaned money directly or provided interest rate subsidy, which might be half of the interest rate. This then helped the growers pay off, or at least maintain, their interest payments. It didn't necessarily reduce their capital debt. If they didn't make payments then their unpaid debts were capitalised, prior to the original debt. This was at a time when bank interest rates were up to 17% and you had growers buying diesel for their tractors on their Bankcards at 23%, which is a far cry, of course, from the way interest rates have receded in more recent years. With those interest rates, farmers could get out of their depth very rapidly if they had two or three years of drought.

[25:00] This is the work on the Rural Bank Committee is it? Your work – was it the Rural Bank Committee, the name? I meant whether that was still work for the meetings you were having with the banks, the Minister's meetings and so on?

There are really two sets of issues here. There were the meetings which we held with the bank managers or the Minister held with the bank managers (but we'd go along). Then quite separately, of course, we ran the Rural Adjustment Branch, which really had its origins much earlier in the Department of Lands and had been responsible for soldier settlement loans and 'Loans to Primary Producers Act' and things like that. All of that was transferred into the Department of Agriculture in Jim McColl's time. There had been quite a bit of criticism of the way some of that had operated in the Department of Lands. It was argued that people who had

loans under that scheme were tightly constrained by managers in the Department of Lands, who often had never been to the properties and really sat in Adelaide passing judgement on the growers. As a result of some of the concerns, the whole enterprise was transferred over from a department which was primarily concerned with land titles and things of that issue into the Department of Agriculture which had a more direct association with the rural community. That was really a quite separate exercise in which the Department itself was in a sense was running a bank.

The meetings with the Ministers and the banks – were they short-term? Were they ongoing over a couple of years?

They went on for perhaps 18 months. They were held at quarterly intervals with the various representatives of the banks during the drought. Once the drought finished then there wasn't so much of a need for that. It allowed the Minister to provide advice to the managers on the sorts of correspondence he was receiving from people out in the rural community who were finding it very difficult, and who were inclined to pass personal judgements on what they thought the banks were doing or should be doing or were not doing. There were a lot of 'war stories' that the Minister would have. The Minister would then be seeking advice in the generality as to how the banks were approaching these issues. It wasn't the Minister's job to lobby for particular growers but he certainly had an interest in what the banks were doing. On occasions we would visit farming areas. I can well recall going over to the far west of Eyre Peninsula. A group of journalists had known we were going and so they set up a road block to try to interview the Minister in the car, with a tastefully wind blown sand hill in the background. But we had a journalist from the Department who recognised that the Minister, to some degree, was being set up by this group. In fact, we declined the opportunity of a press conference with the Minister in front of a vastly eroded sand hill and moved it to a different environment in the hall at Coorabie where he met a number of farmers. It was interesting that in one of the meetings, there were four farmers presenting the local case and one was left with the distinct impression that two of the farmers were waiting for the other two to fail so that they could buy their property! (Both laugh)

[29:35] This series of meetings ... I mean droughts come and go. What was particular about having this series of meetings at this time? Had Ministers met with banks in other droughts?

I wasn't involved with Ministers and banks in other droughts. It really represented the fact that a Minister is under considerable pressure for relief of some form or another. Also, he would hold the view that borrowing money is a risk, farming is a risky business and the Minister was wanting to know what was happening and was really not necessarily wanting to get prematurely involved in some of the financial difficulties. The ultimate reality is that the Minister is

responsible for the taxpayers' funds and has to handle them with some degree of care and appropriateness.

Was there only the one Minister involved?

No, there was more than one. I can't recall the precise details now.

Fill them in later, down the track. John, we'll just end it there for today because we're nearly out of time but we've got quite a few other things to pursue in another couple of sessions I'd say, so I'll make a time with you for later.

OK.

[31:10] End of Side B, Tape 3
Tape 4, Side A – Session of 6 April 2004

[0:30] John, perhaps just to start off with today, we could pick up with a couple of discrete topics. The vet. science, the overseas role of the Department and the Premier's Wine Forum might be good starting points. Perhaps if we can begin with the Veterinary Sciences Division of Agriculture.

The Department of Agriculture had its own Chief Veterinary Officer and an Animal Health Branch. They looked after particularly the regulatory issues of animal disease but for any diagnostic work we really depended on the Institute of Medical and Veterinary Sciences, which had its own veterinary sciences group. An arrangement was made in Jim McColl's time to discreetly transfer the veterinary sciences people from the Institute of Medical and Veterinary Sciences to the Department of Agriculture. Indeed, this was done so discreetly that it was announced in the Parliament as more or less a *fait accompli* without the staff really knowing it was going to happen, which is very unusual in the Public Service as the grapevine was usually pretty well informed on what people were incubating. There was the feeling that the Department needed to, so to speak, get command of this group. I was asked whether I would go down and manage it, being totally unencumbered by any knowledge really of the veterinary diagnostics, being an agricultural scientist not a veterinary scientist. To help me do that, I was also being assisted by Barry Windle who, as a horticulturalist, probably had even less to do with animals than I did. Anyway, we were sent down there as a team and we spent six months there, which was an interesting experience. We had to do some restructuring of the group and we had to gain their confidence and get them accepting their being in the Department of Agriculture. That involved some delicacies but it was a time when many of the staff were looking for some management change. From my point of view it was a pretty interesting exercise.

We also acquired the Gilles Plains Field Station which was doing some research work, particularly some work with sheep. They also provided industry services in terms of production of serum of various sorts and maintaining minimum disease, rabbit colonies and mouse colonies and things of that nature, and guinea pigs I believe as well. Particularly the minimum

disease (mouse and rat colonies) were really very difficult places to operate because the staff had to go in there at 8 o'clock in the morning. They had to shower in and change their clothes and once they're in there, they couldn't really get out. The building itself had been lined, floor and walls and practically ceiling, with grey tiles. These were lino-type tiles. So the environment was very stultifying and it was difficult to keep field assistants working in there, laboratory assistants, for more than a few months because your mental health tended to find this environment rather wearing. So from time to time we had to change the staff members and it was not a particularly good environment for people to have to work in.

[4:43] They would work in there on a day-to-day basis?

Yes. Of course the animals in cages had to be kept and fed at weekends, so there was a need for rostering over seven days and that also made their social life difficult as well. That was one of the more interesting areas that we had to oversee and see how we could perhaps make that a more interesting environment. It also raised the issue of whether or not we really should be in the business of doing some of those sorts of things and whether or not the private sector ought to be doing it. Previously, they'd also had a large colony of beagles, but a review undertaken before the Department took over had suggested that keeping beagles, which were seen to nice friendly animals, in wire cages for experimental purposes was not all that satisfactory. Furthermore, they were very expensive partly because the person responsible for feeding the beagles tended to go down to the local supermarket and bought retail priced dog food to feed the beagles. I got the impression that [they] might have quite a reasonable relationship with the individual running the supermarket and there seemed to be some difficulties there about the form of supply and the cost of it. So anyway when this inquiry was undertaken and the beagles eventually finished up being used experimentally in the Children's Hospital in the basement, which was described as a 'tenebrous funkhole' by the review, everyone ran as far away as possible from any knowledge of beagles. The people at Gilles Plains, quite quickly, were caused to unload the population of beagles. They were pretty unsatisfactory as pets because having been reared with no real social interaction in cages for quite long periods, there wasn't a lot you could do with them in terms of teaching old dogs new tricks you might say.

When was this happening, the review and the takeover?

It was in the late '70s, early '80s if I recall correctly. [Looks at documents]

We can follow it through, but it's the general time frame, late '70s, early '80s.

A report which we eventually did which I've got a copy of sets out some restructuring arrangements and how to make the place operate more effectively. It seemed to be, from my point of view, quite an interesting experience down there. I quite enjoyed it. On the other hand, also we might possibly have had some success in moving the culture along and bringing that

group closer within the Department of Agriculture. Indeed, even today whilst some of the group is now out at Glenside, certainly the research components were effectively transferred into the Department and that worked out well. Sometimes some of the diagnostic components were difficult. Every morning there would be a whole lot of diagnostic material that would turn out down in the basement. It would have to be catalogued and results had to be obtained as quickly as possible and telephoned through to the veterinary surgeons and also paper copies sent as backup. Some of the analytical work was integrated with that of the human system and they often used to ask for a thing called an MBA – a multiple biochemical analysis. Depending on the range of results for the 20-odd things they analysed for in the blood samples, there was an automatic print-out, some of which wasn't terribly appropriate to livestock because it was capable of telling the recipient that this 'person' might have a psychological problem and needed to be dealt with, which probably wasn't a response that was useful when addressing an animal! Overall, we improved the quality of activity. We had some particular skills there in parasitology, which were very good, and also the group at Gilles Plains developed a lot of skills in starch gel electrophoresis and protein typing, which was useful for differentiating species and it also had a lot of occasional use for forensic work as well. Indeed, the person who was responsible for it, Peter Bavistock, later has had a substantial career as a professor at Southern Cross University at Lismore.

[10:35] Then we later got another person to take over more formal control of the Veterinary Sciences Division. That was Dr Tony Davidson. Tony had been a veterinarian in the Department of Agriculture anyway for quite a few years. He actually had been a farmer in Victoria in his early days so he had quite a reasonable knowledge of applying agriculture. He took over the vets from there and continued to operate the veterinary group.

Bringing the people into the Department, how did that work? You have established people in the Department versus people being merged or taken over?

Obviously they thought they had been taken over initially although, on the other hand, there were tensions there because of the previous managerial arrangements so, in a sense, by overcoming quite a few of those tensions we gained acceptance. They, of course, still retained their own veterinary cohesion because they were all located in the IMVS Building down in Frome Road. They didn't necessarily see a great deal of the Department of Agriculture people anyway. They were encouraged to come to Department of Agriculture Social Club events and things like that and some of the scientists had interacted with say the soil scientists. People like Geoff Judson had had a close interaction with Doug Reuter who was in the Department of Agriculture as a soil scientist. So there was an underlying set of relationships with the Department that could be built on, both with the Animal Health Branch on the one hand and

some of the agronomy people dealing with [livestock] metabolic disorders of one sort or another on the other.

[12:30] So in that sense, John, was it really simplifying an administrative arrangement to make it easier or formalising the arrangement?

Much of the veterinary work was meant to be brought closer to the work of the Department. It really divided up into two sorts of practices though. A lot of the practices were straight cat and dog urban practices. Indeed, in due course or even then, we were competing with other private sector laboratories. Competition policy had already established: people who were doing human diagnostic work found with the capital they had invested they could also, without very much additional work, do veterinary work as well. In fact, about all they needed was one competent veterinary pathologist. Many of those private sector laboratories just employed relatively unskilled technicians to run the analytical techniques. The single veterinary pathologist then just looked over the results and gave a bit of feedback. Indeed, our own people had quite a good relationship with that veterinary pathologist and those professional relationships probably still exist today.

[14:00] Was there any intention to move the staff from the Frome Road area?

No. There was no intention of moving the staff as such but an underlying problem was the animal house. There was an animal house in Frome Road and there was a preference for as much as the animal work as possible to be out at Gilles Plains, partly because of pressure on space in the Royal Adelaide Hospital precinct where the IMVS is located. It was only quite a few years later that the Veterinary Sciences Group was relocated to Glenside. That really happened after I'd left the Department. Again, that was brought on by pressure of space for the human diagnostics that the IMVS is pretty well renowned for.

Pressure of space is an ongoing theme for the Department.

So it probably is, of course, for the IMVS too, particularly down at the Royal Adelaide Hospital precinct.

And you mentioned you were involved with this process for about six months or so?

Yes, that's right.

So really you were just coming in, setting it up and making sure it was running ...

And identifying, by selection, of somebody else to keep it running and so that transfer seemed to work out satisfactorily.

So a bit of a 'hit man' in a sense?

I didn't think I was a hit man.

I mean in terms of getting the job done.

I had to go down there and do the job. Barry Windle, in plain terms he is a fairly discreet person, was sent down to remind me to make sure I didn't get too much out of hand! We [developed] quite a good relationship in that time, that was fine.

I meant the term in the sense of getting the job done. It had to be done. So that was just a very discrete episode then for your career?

You could also say it was perhaps, to use a euphemism, a career growth experience if you want to call it that. It probably set me in reasonable stead for later opportunities that I was offered.

[16:15] I might follow through some of that with Tony Davidson or someone like that. Perhaps to look at one of those other topics I mentioned, say the overseas situation.

I didn't have as much involvement with the international projects group of the Department as my predecessors had. Jim McColl had been a consultant anyway and had a strong background in that area. Pat Harvey, who was the Deputy Director of Agriculture, also had taken a strong interest in the overseas projects activity. I had not been very closely involved in it. Although they went through some very cathartic experiences, I generally managed to keep clear of them, for which I was duly thankful. Subsequently, when I became Director-General of Agriculture I was involved more closely with Sagric International, which by that time had become quite discrete from the Department of Agriculture. For a while it was cross-subsidised by the Department in so far as the Department lodged six positions [from] the departmental payroll in Sagric International when they were established independently down in Hindmarsh Square. Ultimately they were weaned off the Department's payroll and it became fully self-supporting. In the first few years it did very well on a strong portfolio of agricultural projects. I occupied a position of deputy chairman to Pat Harvey. Pat continued as a chairman as I recall for the organisation. He had been Deputy Director of Agriculture but when I was appointed as Director-General, a position to which he aspired, he then spent increasing amounts of time down at Sagric International and, indeed, ultimately he finished up there on a fairly full-time basis and was much more involved in the overseas projects and more of the commercial negotiations and the relationships that related to all that. In a sense, that division of labour suited us fine.

There were two phases: your description, John, of the period up to becoming Director-General and then, of course, as Director-General. Just looking at the earlier period. Do you recall much of the feeling personally or about the Department in regards to the Department going off to work overseas?

Initially, staff members were enthused about the idea of, the excitement of, a new appointment and a new environment and having their skills recognised and going overseas. There were, however, some downsides. That is, sometimes if they were away for a year or sometimes two years, back home things in the Department moved on and it was sometimes hard for them to settle back into the Department. There were also problems with wives that might go over there and if they had young children because, generally speaking, whilst the husbands were out

working in the field, working on the projects, the wives generally were not able to be employed. So they tended to have a lot more time on their hands and that tended to pall after a while. So there were limits to the extent to which people would be happy in these projects; they were very long times. In several cases various political events tended to overtake what we were doing. Sometimes there were quite pedantic rules about how you could bring material into projects from overseas. For example, in Iraq we developed quite a substantial export industry from Australia of agricultural machinery. A number of Australian farmers went over and supported its introduction and maintained it and got the locals used to using that equipment. On the other hand, there were some places where if we wanted to take vehicles in, which were cheaper to buy overseas and import, we actually had to export them out of the country again and then the payments were only made by the countries of the projects after we had met all of the bureaucratic requirements. I recall one particular case where a vehicle had been damaged and written off but we were expected to actually export the remains afterwards. There was considerable difficulty about 'What did that consist of?'. Eventually we had to be seen to export the engine and probably the rest of it disappeared in the scrap heap somewhere. There was a long haggle about all of that. Indeed, on at least one of the projects we had to call up export insurance to encompass the remainder of the project in terms of payments to the Department.

The longer term problem was to get continuity of staff because after 10 or 15 years, many of the regional agronomists and other field staff who had the skills that we particularly needed in those environments had 'been there and done that' as the expression is. They were not necessarily all that keen to go back a second time so it became more difficult to get participants and sometimes we had to get participants from outside of our own departmental background. One thing we did learn was that it is probably quite important for the project leader to be a person who is from the Department and understands the ethos of the Department and the staff's framework of thinking. There was one project where the project leader was actually appointed from a North American background and that didn't seem to work so well because, in a sense, he tended to have his eye more on what were the longer term career opportunities after this project as far as he was concerned; rather than perhaps knowing the Department was there and having a home to go back to and keeping his eye on the historical involvement and the Department's interests. That was something we learnt but some of the projects made a difference, but it was hard to tell. As far as the project in Iraq is concerned, I was very interested to learn only a few days ago that Don Plowman, who is now the Deputy Executive Director of the South Australian Research and Development Institute, has been seconded for a little while to work on some Iraq projects as part of the reconstruction of Iraq. He had been over to Iraq and had in fact gone to the project that we ran in the 1970s and was delighted to discover that the buildings

were still in good order, they were still being used as a research facility and indeed they were to be extended and it appeared to him that the technology we'd introduced actually had made a difference.

In some cases the projects have lived on but, by and large, have projects been wrapped up, completed or fallen into ...?

All of the projects have a finite life. You are contracted to do these projects for a particular time and then you get additional projects. Sagric International's management, initially Bob Hogarth, but then for many recent years, Glen Simpson, always had to be on the look out for new work that they could do. Although Sagric International was sold to Coffey & Partners several years ago, it still operates and trades under that same name. Its portfolio of projects has changed off and on over the years. For a time they were doing a lot of technical and further education training of overseas people in Adelaide and their agricultural component became relatively small. In those days they had a lot of students staying in the nurses quarters of Modbury Hospital and they were training people in the little college they'd set up down in Currie Street in things like accountancy and tourism and various topics of this nature, sometimes in association with TAFE colleges. It is a matter of really having the ability to approach a fairly broad-based market for international projects. More recently they've done work in New Guinea. Other sorts of activities – some land related. The Torrens Title system and land tenure systems, which we take for granted in South Australia, was a field that Sagric International was able to market in a number of places. North Africa, for example, where land tenure had been far from clear. Many of the difficulties, socially, derive from the fact that land tenures are not clear and also there is no scope, therefore, to borrow funds if there isn't a clear title system. That was a skill that was particularly developed up in the period when I was involved with Sagric International.

[26:40] You mentioned earlier, John, that some staff members were proud to be involved, proud of their expertise or South Australia's expertise being recognised in these overseas projects. Was it appropriate for the Department to ... Obviously if you went down that path ... but was it really appropriate for the ...?

It depended on how you perceived the motivation. There were two points of view. There was perhaps an underlying altruistic view, but the reality was it was perceived to be a way of trying to develop more trade opportunities with developing countries, particularly based on agricultural and engineering capabilities which we had at the time (and which are probably rather less now but we still have some of them). So people like [John Shearer & Co.] did quite well out of selling tillage equipment. It also set a broader base for trade on the grounds that if you get a sound underlying agricultural economy, you can then start to develop other aspects of the economy.

However, there was also a contrary view. That is, whilst initially we had very good sales say of pasture seeds from the South Australian Seed and Growers Co-operative among other South Australian companies, it was also a concern that they might learn how to manage their own seed industry and perhaps that would undermine the Australian seed export industry, although I don't think the reality of that was probably all that important. Seedco put a lot of effort into marketing its products in some of those countries where we've been active and very much built on some of the awareness and interests that were raised by our projects. They actually, commercially, took a very creative and responsible role and probably did quite well at it for a while.

[28:52] You mentioned that projects have a finite life. I was just wondering what sorts of benefits came out of these various projects and the various countries that the Department was involved in. What were the benefits for the country itself and what were the benefits for the Agriculture Department?

The benefits for the Department of Agriculture were exposure to some new environments and career experience. 'Job enrichment' is sometimes the expression favoured by the human resources people. Those things can be a little overstated but there was quite a commitment and a camaraderie among the people involved in those sorts of projects. I don't think they did any real harm to the Department at all. Overall, it was seen to be a positive thing. Indeed, the work at Sagric International still attracts public interest. Even in the current Iraq environment it's achieved some quite major commitment. People from Primary Industries and Resources SA and CSIRO and SARDI are involved with some of those projects which are still being undertaken, albeit by the private sector and Sagric International.

As you say, Sagric has grown outside the Department.

The other thing is that there was an introduction of new technologies. Not all of the technologies were probably successful. We had friendly rivalry also with a group from Western Australia who were doing somewhat similar work in several countries, albeit in geographically separate locations. South Australia and Western Australia, particularly, were strong in that dryland agricultural development. The major thrust of what we tried to market was the so-called lay farming system in which medics and clovers were introduced to the farm system between cereal crops. You might also introduce livestock to eat some of the residues, get rid of the surplus straw and produce a further revenue stream. There were social problems. For example, when we tried to fence off the field plots where we were carrying the livestock, there was a tendency for the fencing to disappear and the livestock to disappear in the night! It did prove quite difficult to manage livestock in the way that we had become used to and I guess the South Australian wheat sheep zone was the thing we were trying to emulate. It has to be said that our own South Australian system has also changed quite a bit since the 1970s with a much broader introduction of grain legumes, availability of much more specific selective herbicides [and the]

move to minimum tillage. In a way, some of the original technologies we were introducing have probably evolved further here as much as they may well have done over there.

So was there any transfer of expertise or knowledge back to South Australia, to the South Australian farming sector?

There were issues of robustness of equipment, for example. Some of which wasn't handled with great delicacy in these environments which meant the manufacturers learnt a little bit more about what was required to really build equipment that would stand up and some of it stood up very well. One of the successes we had was marketing Australian equipment, which was much more robust than the European equipment they'd had previously. A lot of our equipment, also, was designed to be used differently. The English or the Europeans had very deep, rather fertile, soils and were used to using the mouldboard ploughs that they put down to considerable depth and tipped the soil profile upside down. They needed a lot of tractor power or animal power, as the case may be, to do that whereas we moved into a much shallower cultivation, less 'recreational' cultivation.

**[33:30] End of Tape 4, Side A
Side B, Tape 4**

[0:05] ... gain some benefits by going over?

It gave them an interesting experience. It meant that there was a coterie of farmers who had seen more of the world. In some cases they would not have travelled as much as perhaps their own parents might have done who were involved with say the first or second war. There was another generation after them who were younger and had not really travelled a lot and it opened up their eyes to other parts of the world and they found that an interesting experience, probably some frustrations mind you too. I guess the other point to be made which I haven't commented on and I'm sure other people you have talked to will, is that there were meant to be local staff that paralleled the appointments that we had for the purpose of transferring the technology to local people. Certainly in Iraq one of the people who was the local parallel appointment to our officer in charge got shot one day going to work at a roundabout ... Arthur Tideman can tell you about that.

[1:25] Another aspect of the overseas experience is the political support, the level of support from the Minister, from the government and even the opposition. There doesn't seem to be much of a political campaign about these ...

There were times when people were asking 'Why were we in this?'. Brian Chatterton, who was Minister before I was much involved, had been very enthusiastic about it. Later Ministers, particularly from the Liberal side of government, initially really were asking, 'Why was the government, the Public Service, involved in what appears to be a relatively commercial consultancy operation?'. In each case, they really came to see the purpose of it as far as

developing an aspect of the South Australian economy was concerned. Whilst there was a bit of a conversion program that went on when they first came to office, in each case the various Ministers seemed to become quite committed to the program and they occasionally went on overseas expeditions to meet their counterparts in government in other places. It also depended whether there was a good champion (which there had been, for example, in Algeria) for the work that was being done and if an effective relationship developed say between the South Australian Minister and his opposite number in those countries (and that did happen on a number of occasions), then that added strength to the whole process too.

People these days are quite fond of referring to the 'bottom line'. With this overseas experience, what was the bottom line for the Department in terms of the finances and so on? How did that work?

Once Sagric International became independent that really was no longer a problem for the Department. Initially, you could say, it was an investment by the Department using its consolidated revenue funds (the budget allocated by the Parliament) to get the whole thing started. At the time there were still six people on our payroll then obviously you could say that was perhaps a cost [investment] to get it going. Earlier, of course, the whole exercise had been funded just as a section of the Department of Agriculture. Quite correctly, it moved to a self-sufficient operation and Bob Hogarth and later Glen Simpson drew up the skills to look at all of the new opportunities. There are quite large international catalogues of new tender proposals that are on offer. There's quite a lot of work involved in mounting a tender. They're quite costly investments to mount a tender and you didn't always win them. That involved a whole series of staff who were involved in seeing what projects were perhaps on the horizon, how we could bid on them and a whole network of people. It involved connections to the World Bank. Whilst again I wasn't closely involved in those things, the Sagric International people did develop those skills quite well.

[5:14] That's interesting. What other tenderers were there? Who was competing? You mentioned Western Australia.

There are firms in Germany, Holland and in some cases there are government agencies in those countries that will also provide some financial support for that work to be bid on. Sometimes they would hire people from our own Department! There was one firm, a German firm, that employed one of the ex-departmental people in Indonesia for several years. There was quite a bit of competition. Of course, many American organisations and land grant colleges had interests in overseas projects. It was probably much more common then for public instrumentalities to pursue those things than might be the case today.

Were there other examples in South Australia with other departments that you are aware of?

The Education Department, at some stage, and the TAFE colleges, they took an interest in trying to develop relationships. For example, there were relationships between the Regency

Park Hotel School and colleges in Japan. Sometimes these were just sister-state relationships, but other times they were on some commercial basis and the students were brought out to train in an Australian college. The Institute of Medical and Veterinary Science itself set up a company of its own to do some of that work. I don't know that it did a great deal but there were examples in other departments where overseas project work was being undertaken.

Thanks for that. We might follow through a few points when we see the transcript on that, if there are any things we haven't covered.

Yes, that's fine.

I appreciate that you were outside that overseas field.

There are others that you will be talking to who had much more personal involvement. Jim McColl, Arthur Tideman, Peter Barrow and probably Don Plowman would be worth talking to too. Don had a background in the old Monarto Commission and then transferred to the Department of Agriculture at the time it was determined that we weren't going to have a great migration to Monarto and living in the houses out there. Don had a lot to do with the Overseas Projects Unit as it was called before it transferred into becoming Sagric International, which is why in fact he's been re-involved quite recently in the rebuilding of Iraq.

[8:15] I will follow that one through, thanks. Perhaps if we can just look at that other topic we mentioned at the start, the Premiers Wine Forum. Let's hear a little bit about that.

This was an exercise that really was set up by John Bannon when he was premier, which proved ultimately to be quite a good initiative though it was perhaps heavy going for him in the first place. The background was that there were four quite discrete organisations in South Australia dealing with aspects of the wine industry. They didn't really have any notion of exporting or industry development or any sense of being a cohesive industry. The various components were: the little boutique wineries; you had the cooperative wineries; you had several proprietary wineries; and you had Penfolds who were a law unto themselves in those days. Also, you had the Wine and Grape Section of the then United Farmers and Stockowners, which was managed by an individual who actually worked professionally in the Taxation Department. His interest in grapes was perhaps a bit more peripheral than most of the grape growers but he had a knowledge or the ability by being in the city to keep his finger on what was going on.

John Bannon decided to convene the Wine Industry Forum, which was to bring these groups together on it was a six-monthly basis and at times quarterly to try and generate a more cohesive approach. This was occurring very soon after we had had the Vine Pull Scheme in which there had been over-production of grapes and we had been funded to have growers remove grapevines. From my point of view that process involved me in more problems and

complaints than anything else we did in Agriculture in the time I was Director-General. Have we talked about that?

We haven't gone down that path yet but perhaps we can come back to that after the Forum.

We can come back to that. John Bannon's feeling was that here was an industry that had some scope for development even though it had only just gone through the anguish of vine pulling and downsizing. What he did was to convene a meeting of these people and really encourage them to try to develop a cohesive structure. My recollection is that he funded some consultancies to see how this might be done and the outcome of the whole process was to create the Wine[makers'] Federation of Australia, so-called WFA. This brought the components of the industry together. It also had later consequences insofar as it provided something of a vehicle that underpinned the creation of a Co-operative Research Centre for Viticulture which had its headquarters on the Waite campus and has operated out there now for 12 or 13 years and again increased the research focus in that area. We had, of course, had the [Australian] Wine Research Institute here for quite a long time but that itself is funded by a levy on the [wine] industry. That was purely a research body. John Bannon, bringing these groups together, did provide in a roundabout way the underpinning to lift the horizons and got the industry to look much further afield in terms of all the export potential. In a way, the blossoming of the industry and the more than doubling of exports and it now becoming a multi-million dollar industry, does owe something to that early effort by John Bannon to create a degree of industry cohesion and to lift its sights beyond competing for the local wine market.

You've mentioned several times that it was a Bannon initiative. Putting a fine point on it: was it the premier's initiative? Where did it originate from?

I can't quite recall exactly where the initiative rose from but it certainly was taken strongly forward by John Bannon. He personally and very clearly chaired the meetings and he was clearly the driver of the process. It wasn't just a window-dressing exercise, which these things can sometimes be.

How involved was the Department then?

There were a range of people from various departments. The Department was directly involved. The Department of Trade was involved. There were the various wine participants, probably the Wine Institute would have been present and there would have been quite detailed records kept when ...

Was the Agriculture Department taking a leading role?

In a sense it was seen to be lodged in the Premier's Department but obviously we provided quite a strong role in terms of the underpinning of the process but it was important that it was seen to be the premier's initiative. When the premier invited people to come to meetings, that

acted as a pretty good incentive to make sure that they did. Whereas if a public servant in the Department of Agriculture invited them, it really didn't have the gravitas and impact of the premier's personal involvement. It was a good initiative.

[14:34] You mentioned the organisation WFA. Just interested to know why it became the Wine Federation of Australia, a national focus rather than a South Australian focus.

The majority of the wine industry is in South Australia. It was then 60, 70% in South Australia and John could see quite clearly that you had to look beyond the purely parochial focus. It's true that there has been quite an expansion of the wine industry in other States, particularly in Victoria and in areas like Margaret River in Western Australia and the Swan coastal plain. But equally well, there has been considerable expansion in South Australia. There's been a bit of expansion even in Tasmania and I hesitate to mention that [winery] in Alice Springs. The fact that it had a core and that many of the participants in the wine industry do have their headquarters here, the others are in the Hunter Valley by and large. It provided the thrust of driving forward the industry.

It's interesting that it has taken a national name, a national focus right from the start there.

Australia has tended to at times become very skilled at playing interstate rivalries and arguments, which are not always productive. Often they are driven by who pays for what and how it can be minimised but there are many times when we do have to take a national perspective. Things like controlling exotic plant pests and diseases, and animal diseases, clearly we are able to operate in the national perspective pretty well. Also, there would have been a notion that headquarters of companies that were in South Australia were things that needed to be nurtured. We didn't necessarily want to let all the headquarters of companies be in Melbourne and Sydney. There has been a bit of a tendency for some companies to migrate to the eastern States and the idea of trying to keep wine companies here would also have been a motivating factor in all of this.

[17:15] I'm not sure if it's appropriate to ask you, John, what happened to the Forum? How did it evolve and what has it become? Have you kept in touch with them?

Eventually the Forum itself ceased to operate once the cohesion was generated within the industry. There really wasn't a lot of necessity for it. At the time John Bannon was comfortable that it was on its way then to the best of my knowledge it no longer was meeting.

And the Federation there took over?

It was a personal initiative and, of course, then John Bannon had to leave office as a result of the State Bank affair so the job had been done which highlights the fact that not all structures need to be kept in place for time immemorial for no good reason, if they've served their purpose.

But the Federation has taken over that role?

Yes. It's a very different role but it was established initially offices out [at Wayville then Payneham], later [in Magill near the Penfolds precinct] and then, more recently, it is now in the [National] Wine Centre in North Terrace, [Adelaide].

That's just another little story in the agricultural industry of South Australia.

Yes.

[18:45] We have got a few moments, perhaps if we could just go back to that issue of the Vine Pull Scheme you mentioned and the headaches it caused you!

The Vine Pull Scheme basically was a scheme whereby people who wanted to remove their vines were given an interest-free loan which if no vines had been replanted on the property within two or three years after the vines were removed (and it was certified that the vines had been removed), the loan would be discharged without repayment. The actual management of all those aspects was done through the Rural Assistance Branch, which was also managing loans for drought relief and rural adjustment loans and that sort of notion. We had the mechanics to deal with that so that was one set of things that were reasonably satisfactory.

The other component, though, was the valuation of what was being removed and, indeed, whether it had been removed. It was a requirement that local offices in the Department in the regions where the vines were being removed, actually went and inspected the site to see that the vines had been removed. Then they signed a certificate to say the vines had been removed. The loan payment was then made to the grower. The site property was inspected again in two years time and if it was free of vines well that was fine, you had the loan discharged. However, we did have a problem particularly in one case where the owner had cut off the vines with a chainsaw. It was inspected in the late winter where the grass had grown green all the way around. The [inspecting] person who did it, did it in a rather cursory way. Probably he didn't walk very far into the vineyard and didn't actually notice, in fact, that the rootstocks were still along the ground. The owner then sold the property having pocketed his loan and the new owner in the following few months suddenly discovered a vast collection of vines all sprouting out in the middle of his grass. In fact, the vineyard was still there. Then there was a court case about who was liable and, ultimately, the Department had some liability for having not properly examined the field and had incorrectly certified that the vines had been removed. The new owner had thought he had bought a paddock which was free of vine rootstocks. In fact, he couldn't do much with it.

There was one other issue that occasionally arose too and that is we had the right to refuse a Vine Pull Scheme where we thought the vines were being removed for the economic convenience of the owner. That was sometimes an issue in properties that had subdivisional

potential around the outskirts of towns. If an individual had in mind that it might be nice to subdivide his property, sometimes they'd come along with a proposition to pull the vines and then they would proceed to whack in a few roads and that would be more convenient if the place wasn't full of vine stumps. So we had the ability to refuse those. In some cases when the refusal was provided, then there might be arguments that ensued and my recollection is that we finished up with about six different cases where the Ombudsman was dealing with various issues that arose out of problems with the Vine Pull Scheme. We did reduce quite a lot of areas of vines. There were a few hectares of chardonnay and desirable varieties that were pulled out but there were a lot of the old varieties – sultanas and Pedro and things like that – were also pulled out. If the truth be known, some of them in later years, quite a few years later, were replanted but replanted with more desirable modern-day varieties. This meant that the industry now is much more oriented towards varietal management rather than just producing general-purpose grapes to send off to the winery to do what they like with.

[23:30] Had the industry expanded by planting so many vines? Had it expanded in an uncontrollable way?

You mean before the Vine Pull Scheme?

Before the scheme sorry.

Not really, I wouldn't have thought so. The industry had probably been on a relatively stagnant plane. I mean there had been some new vines – Semillon and Chardonnay – planted and things like that. The much bigger plantations have occurred since the Vine Pull Scheme. The much bigger areas of plantings now are again starting to raise issues of over-production. There are a number of competing issues there. For example, the market forces generated by supermarket companies in England being able drive harder bargains with competing wine suppliers both from Australia and Chile and South Africa have meant that margins have become tighter, prices for growers are reducing and, in some cases, in the current season areas of reds weren't harvested because there was no market. So we are perhaps facing another area of adjustment but time will tell.

[25:00] Is that left to natural forces? Does supply and demand determine how much is planted? I'm just wondering how much involvement the Department would have had in ...?

The Department would have less involvement now than it would have done then. One of the other things that we were involved with was establishing an information system whereby growers could list the grapes they had available for market on a database which was ultimately run for a while by the South Australian Farmers Federation and its predecessor. Buyers who were looking for grapes could go to this [database], which was called the Wine [Grape] Exchange, and see what was on the database and see where they might find the grapes they were looking for. There had also been processes of minimal pricing historically and to some

degree that had propped up parts of the industry and had served in a way to probably inhibit rural adjustment. Particularly in the Riverina of New South Wales, [minimum] prices were set and they of course flowed over into the other States although prices set in New South Wales had no legal significance in South Australia, but then they influenced prices that prevailed here. Whilst there had been some price setting in South Australia, later there were established what were called indicative prices, which had no particular market-based legal significance but gave growers some guidance. This is all part of a process in which growers increasingly had to take responsibility for decisions on where they sold their produce. It didn't matter whether it was wheat or wool or what. Historically, wheat had all gone to wheat pools if they were average quality and the prices just reflected the best money could obtain and there wasn't much response back to the growers about the quality of wheat. All that's changed immeasurably with a whole range of different grades of wheat in different markets and the ability to forward sell. The growers have to have much more knowledge of markets. In the [1980s] with the wool industry, the wool was propped up by the floor price scheme. After they had 5 000 000 bales in a stockpile, really it was clearly out of hand and it negated any development of the wool industry probably for 10 years afterwards. In the same way, the grape growers had to increasingly take responsibility for their own marketing decisions. One of the problems there also was growers would sometimes say, 'We've got to get rid of these grapes. Let's form a co-op'. So they would form a co-operative and all of these grapes would go to a co-operative. They would then find a winery that would actually process the grapes and make the wine and then [the cooperative would] try to sell it. Often they didn't have any sales price and they had to pay for the cost of producing the wine so in a sense the growers got no payment by which time the next year was around so they would go and form another co-operative. There were cases of one winery in the Riverland that had separately created co-operatives on two or three separate years and each time they went broke and the growers didn't get payments and hope seemed to spring eternal.

There were also a lot of mixed views in the Department about co-operatives. Certainly some Ministers and particularly one of the departmental staff, Anne Bunning, was quite enthusiastic about greater use of co-operatives and she was given some encouragement in that by John Kerin who was the Federal Minister of Agriculture at the time. Some State Ministers were not particularly enthused about this or didn't have the same commitment but they were prepared to allow this to be explored. There were disadvantages in the co-operatives in the sense that any surpluses had to be returned to the co-operative holders and it was quite difficult for them to retain capital. In many cases what had been co-operatives, say Berri, moved over to a proprietary model and then ultimately there was integration between the various companies so that co-operatives now are probably rather less significant than they were then. People

understand the benefits on the one hand and the constraints in operation on the other of co-operatives.

[30:10] The co-operative movement goes back a long way but times have changed.

There is ... Overall in agriculture, as we have seen the number of players, farmers, reduced, properties get bigger, much more responsibility for marketing decisions rather than just sending it all off to somebody that gets rid of it. This used to be the case of the woolgrowers and dairy co-ops and all that. We probably had 10 dairy co-operative companies of various sorts and they all finished up in two major companies. Now the Australian dairy industry is increasingly integrated with the New Zealand dairy industry. It's not just a matter of co-operatives in adjacent towns trying to be independent.

Did the Department get involved in providing advice or comment on the benefits or negatives of co-ops? Informally or formally to people?

I wouldn't say there was a lot of involvement about providing advice about the benefits of it, but what it did do was to provide leadership for the review of the role of co-operatives across the States as a project supported by the Standing Committee on Agriculture and the Australian Agricultural Council. Those States with an interest in that area participated with more vigour. It depended on the legislation of the different States. New South Wales, for example, had a Registrar of Co-operatives and they were quite active players in seeing the extent to which a co-operative movement might be facilitated. However, I'm not sure there was a great deal of change. There were proposals to make some improvements to legislation and perhaps lead to greater harmonisation, as you might put it, of legislation. That's a euphemism of trying to get similar legislation in all States. You can never actually achieve that because when you go to the House, then the politicians will invariably want to make various improvements. What you really need to be aiming for there is that the outcomes between the different States are all pretty similar even though the actual wording of the legislation will have its variations and that's fine, it doesn't matter. The democratic processes have done its job.

We are probably just about out of time today because the tape's nearly out. We might have to pick up on some of those points in a subsequent session about the co-ops and so on. We've covered some good ground there today, John, on those three or four issues. Thanks very much.

[33:00] End of Side B, Tape 4
Tape 5, Side A – Session of 10 March 2005

[0.35] John we going to cover a few more disparate topics again as we did last time. There's been a bit of a gap between our sessions. But I felt perhaps today if we start off with a more recent development and that's the formation of the South Australian Research and Development Institute, commonly known as SARDI, and your views about SARDI and its formation and your involvement in that.

I must say I was somewhat surprised by the government's decision to create SARDI. It came to my attention while I was in a hotel in Honolulu, returning from the United States. I had a

telephone call from Peter Crawford who was then head of the Premier's Department to announce that the government had restructured the Public Service and that the Department of Agriculture had ceased to exist and they had determined to create something among other things called the South Australian Research and Development Institute. Peter Crawford made it clear it wasn't his decision but that was the message he was conveying to me, so I had to come home and accommodate to that decision and I was to be the first Chief Executive of the new SARDI. However, you might then contemplate what were the origins of this. In fact I went back and asked Lynn Arnold who was really responsible for the decision, what brought it on, when we had the 10th anniversary of SARDI. Lynn indicated that he had been impressed by the level of science that was being carried out. Of course, we'd had a strong thrust of developing the co-location on the Waite campus with the university and CSIRO. I'd also, on several occasions when I was Director-General of Agriculture, expressed some concern that the State government wasn't really picking up on the issue of research and development and innovation. To some extent I was driven by the then fairly recently prognostications of an economist then in Chicago, now in California, called Romer, who argued that economic development wasn't just a matter of land, labour and capital, but also it was a matter of innovation and that societies that had significant amounts of innovation generally did better than those that didn't. A couple of times I put to Lynn Arnold that this was a fairly important new concept in thinking and I believe that it did have an impact on Lynn in an underlying sense and probably was part of the thinking to create SARDI. Anyway, the decision was made to establish SARDI as a separate entity and two people were transferred to it, they were myself and then Rob Lewis, who was previously the Director of Fisheries. So the two of us together with our PAs represented the core of SARDI and we negotiated a space then on the 1st floor of the Grenfell Centre to which we ultimately migrated and we were able to encourage a number of people to come with us including several administrative people, Oksana Dniprowyi was one of them, I think Don Plowman became another. Some of these people had to decide in terms of their careers, do they want to stick with what was then called PISA (the Primary Industries South Australia), it didn't yet have the Mines and Energy part added to it, or did they want to go with the R&D group? Several people ... Ian Tonkin was another one who had a background working on research centres [who] decided to go with SARDI. Quite a few of these people are still there. Indeed, Rob Lewis who's still the Chief Executive of SARDI. At the time that SARDI was created, it was created as independent government department separate from PISA.

Was it being hived off from Primary Industries Department at that time?

It consisted of the research components of the Department of Agriculture, the Department of Fisheries, and the Woods and Forests Department though it transpired when I went around to Woods and Forests that they really didn't have any significant research facilities anyway. In

reality, it was the research components of Agriculture, which was a series of activities on research centres and also the co-location being developed on the Waite campus from Northfield with the transfer of research facilities from Northfield, and also the research facilities of the Department of Fisheries, which were then being created – the West Beach laboratories which were really world standard as were the ones that we were developing on the Waite campus, particularly the Plant Research Centre. They were the core of it. It was decided to establish ultimately ... When the building was available for occupancy, the headquarters of SARDI were then the Plant Research Centre at Hartley Grove, Urrbrae and the headquarters are still there.

You mentioned you heard about this when you were overseas. How much knowledge building up to it, to the decision ... Had you been involved in ...?

There was no interaction in terms of reaching that decision. The decision was very much made probably by the Cabinet itself, in wanting to make those changes. Certainly from Peter Crawford's comments, as head of the Premier's Department he would've been involved in some of the decision making no doubt, but it wasn't an issue that came out of the Premier's Department. I don't think that's an issue. It was pretty innovative in its way. Indeed, it led to other States then starting to look at what they were doing with their research. Fairly soon afterwards Tasmania came up here to see what we were doing and they looked at the Plant Research Centre, which was then nearing completion, and walked away with trying to get a feel for what the approach was. They subsequently took a slightly different path but an interesting one in which they created the thing called the Tasmanian Institute for Agricultural Research which was a joint venture between the University of Tasmania, which is quite a small university, and the research component of the Tasmanian Department of Agriculture and Fisheries or whatever its then title was. They were influenced in that decision by a report that Jim McColl had done about 1990 into agricultural education in Australia, in which he had basically said that probably there were too many agricultural faculties in the country and the one in Tasmania was the smallest and it probably wasn't viable. In that sense I imagine the Tasmanians felt somewhat threatened so they actually took some action and created the Tasmanian Institute for Agricultural Research, which actually was a good outcome I think, partly influenced by what we were doing at SARDI and also influenced by Jim McColl's report, and it has to be said that most of the rest of Jim's recommendations were unfortunately, in my view, largely ignored so we still have a large number of agricultural faculties all trying to teach all sorts of things with no terribly clear specialisation on anybody's part and often dressing them up with other more trendy names in order to attract more students often without too much regard as to what the marketplace actually wants, but all that's another story.

We might come back to it. The drive for SARDI seems to be coming from perhaps outside the Department of Agriculture.

Initially there was a lot of concern in the rural community: what was the government doing? Indeed, the Opposition at one stage was attempting to mount a case that this was very unwise and make some political points out of it, to the extent that I was being discreetly asked about these sort of things. I was trying to slow them down and not to perhaps politicise the exercise. But it did mean that we had to then work out, basically Rob Lewis and I, what it would actually mean to create a thing called SARDI. Initially I went round to quite a lot of different sorts of agencies who were involved with aspects of research, including even places like the Centre for Manufacturing, to find out what were their expectations of a research and development organisation in the South Australian government and where would the boundaries be?; should the boundaries be wider?; should we be looking at moving into other sorts of technical fields we weren't in? Ultimately the decision was taken that if we kept pretty much into agriculture and fisheries, which were the origins, but there had been consideration of the potential to get into wider areas but then other fields were filled by the university or CSIRO, so there wasn't a lot of point perhaps in SARDI moving away from its original origins.

On the other hand, John, was there some potential for SARDI taking on or negotiating to take on some of the roles of the university or CSIRO?

Some of that sort of thing was discussed and we would've had some discussions with Harold Woolhouse. There were suggestions in earlier times when Jim Quirk was director of the Waite Institute that he had aspirations that he would be cheerfully willing to take over of the research role of the Department of Agriculture and do it better. Naturally those of us in the Department of Agriculture weren't terribly enthused about that. It wasn't all that much later that a review was conducted of the Waite Institute at the end of Jim Quirk's appointment as director of it. ['Report of the External Review of the Waite Agricultural Research Institute, University of Adelaide, March 1990' commissioned by the Commonwealth Department of Employment, Education and Training.] It was conducted by a Dr Jim McWilliam. It was actually reasonably critical of how the university and the Waite had been operated. [Quirk] spent a good deal of his time in trying to secure additional funds at the expense of the North Terrace campus and the North Terrace campus on the other hand felt that the people on the Waite campus were in a somewhat sheltered environment as they didn't have the extent of lecturing loads at North Terrace. There were pretty voluminous sorts of correspondence dealing with those sorts of issues in the files of various Vice-Chancellors who probably would've been happier to have done without them.

Coming back to SARDI. The first thing we then had to decide was if we are going to primarily create this thing out of the Department of Agriculture and the Department of Fisheries, who are we going to transfer? It was quite a difficult exercise of identifying who should be transferred; where was the boundary?. The boundary often was a little difficult in country areas where some

individuals were involved in research and extension: they did do some fieldwork but they also had an extension role and it wasn't always terribly discrete. There was also the issue of the research centres. There was also the issue of the outcome of the review of the Department of Agriculture which, among other things because of the State Bank affair and the general reduction in resources available across the South Australian Public Service, the area was to take something of a budget cut of some significance. So we were looking at who do we transfer?; who remains in what was then PISA?; and who might like to have a package for redundancy in order to generate a saving in the portfolio? Those sort of decisions are not easy for staff to make, particularly when they hadn't been foreseen on the horizon. Certainly the review of the Department had generated quite a bit of discussion earlier. The creation of SARDI would also have been seen as an instrument that would help generate some of the savings that were thought to be necessary in the overall sense. So I can imagine the Treasury might well have been supportive of that sort of thing.

Just to clarify one thing there, John. Did SARDI in that sense come out of this review?

In some sense it would have, but the review did not itself particularly recommend the creation of SARDI, so you wouldn't have seen that in reading the document.

Perhaps we can come back to that review in a moment, talk about that in a moment. So SARDI's coming along: was there any suggestion that the government might get out of the research area full stop? I ask because you've got this situation of research people in the Department of Ag. already, yet you're hiving it off to form another research body. In a sense there's no cost savings, no ...

There was a sense of perhaps the State Government might invest less of the total proportion of the cost of running SARDI. Indeed, that's happened so that SARDI is now in 2005 about 52% externally funded, whereas in those days it would've been much lower in terms of external funding, it might have been about 15% or something like that. That transition has been made over quite a few years, but in many cases it has more been due to attracting additional funds that Rob Lewis and the staff at SARDI have attracted rather than due to great reductions in the number of the State public servants. Certainly there have been reductions in the number of State public servants, but SARDI under Rob's leadership have done very well in attracting additional funds into the organisation and it's full marks to Rob to have been able to achieve it.

In that sense is SARDI more like a statutory authority, being able to go out and solicit money and ...

Initially it behaved more like a statutory authority, particularly when the SARDI Board was created which I chaired after I'd gone to CSIRO, because it was independently responsible to the Minister. It was still a government department, but I had specific delegations as chairman which allowed me, for example, to sign off on a financial delegation probably up to half-a-million dollars, and Rob Lewis could only sign off to say [\$]100 000 or something like that, and then beyond that we had to go to the Minister. Later when SARDI became a unit within

Primary Industries and Resources SA, it reverted to being effectively a division of a larger department and ceased to be an independent entity. The SARDI Board was replaced by the 'so-called' SAPIRD Board, which is the South Australian Primary Industries Research and Development Board, which provides advice, presumably to the Minister and indirectly to Jim Hallion as head of PIRSA, on its research priorities whereas the SARDI Board was more directly involved in setting its own priorities. As chairman of the SARDI Board I used to meet monthly with the Minister to discuss various R&D issues and policy issues as a separate issue from the Chief Executive, Rob Lewis, meeting with the Minister which, of course, he would have more access to than I. That went on for five years until SARDI was put back into what became PIRSA.

[18:50] So it's an interesting twist in the story – to hive it off and to bring it back!

Then we come back to the issue of how the staff were created. This was quite difficult and quite stressful and most of that was managed for us by Jim Walkley who had been, I suppose, a Sheep Research Officer primarily at Turretfield Research Centre but had moved into the city to do some other project work. He went around and had to meet with the groups of people and see what their aspirations were in terms of career terms, were they wanting to ensure they got a place in the new R&D structure or did they find attraction in perhaps taking a package and hanging their shingle up. All of a sudden people moved into private sector research and development operations, often in association with perhaps consultancy activities. People like Alan Mayfield, who had been [phone rings] research [plant] pathologist, they would hang their shingle up at say Clare and have been very successful doing that. [phone ringing]

OK John, after a short pause for the phone. We were talking about getting staff to the new organisation and the process there.

The point I wanted to make was that this was quite stressful for some of them. It was also very stressful for Jim Walkley who really had the responsibility of coordinating what was for some the outcome and sadly Jim felt that he'd enough of all of this and he eventually moved to Queensland and later joined the Queensland Department of Primary Industries.

He was somebody who'd come up through the Department?

Yes. He'd been probably a cadet in the Department in the days when the Department had cadets and contributed towards them doing their degree and then they then had to work for the Department contractually for the same number of years as they were supported with a living allowance in the Department. There are other examples of that. A good example currently who was in that position is Roger Wickes who is now an Executive Director in the Department of Water, Land and Biodiversity Conservation. He was supported as a cadet coming through his degree and has maintained a career in the public service ever since and developed it very well.

Just very briefly that aspect, something we haven't really thought of, in this case of the separation packages, redundancy and so on, the impact on the person in Jim Walkely. We talk in terms of the person taking the package but not the person offering it!

As far as Jim was concerned, these were all people that he knew quite well. Some came from the research centre he was on; others were people he'd worked with in other parts of the Department. One has to accept that sometimes these change processes can be quite difficult, not only for those who have to change but those who are involved in managing the change.

Would you recall if Jim had expressed any concerns about this before he decided to leave?

Yes. He was a very conscientious person and he was doing the job he'd been asked to do, but clearly he didn't enjoy it and we knew he didn't enjoy it, but being Jim he felt he still had to carry it through. [Ultimately] a considerable list of staff members were formally transferred to SARDI on the 2nd of February 1994 which followed the original transfer of us to SARDI when the decision was made in November 1993. When I get the transcript I'll just check the dates to make sure that's correct. [Yes!] Anyway, it then followed that one week later I had accepted the position of director of the Institute of Plant Production and Processing in CSIRO. I got the impression that some of the staff were quite intrigued by this. In a way it was seen to be a bit of a thought that maybe I'd been a bit short changed by being dispossessed as the leader to the Department of Agriculture albeit to tee up SARDI. I had told Lynn Arnold that I'd been offered this position and Lynn Arnold said, 'That's great, that will continue the strong relationship between the State Government and CSIRO. What we should do is create a SARDI Board and you might like to be chairman of it'. Lynn at the time was on a fishing boat out in the Gulf, a very unusual activity for Lynn Arnold, I might say, to be engaging in something like that. I was talking to him on his mobile phone. So he was prepared for the fact that I would transfer to CSIRO so we then created the SARDI Board which had an initial membership and it became involved in the development of SARDI over the next five years and the SARDI Board had a good close working relationship with Rob Lewis and we met every couple of months, it was quite formal and its level of delegation and responsibility I described earlier.

So that would be what, roughly '94 to '99 you chaired the Board?

Yes.

Yes and then the move back into PIRSA, the Board was abolished?

In that form, yes.

Did you lose your connection with it or did you go on to new ...

No, I was not involved in the new SAPIRD Board although I was invited to come to one or two of the priority setting sessions to make some input. There were other people involved in those, perhaps in a representative role for agriculture and one or two people from the university and so forth. I've always, because of my physical location on the campus even though it's in CSIRO

I'd be going around to the country [visiting CSIRO staff but] maintaining a fairly close, personal, almost a slight proprietary interest in SARDI because of my background both in the State Public Service and in research and development and in the origins of SARDI.

[26:40] Talking about the staff and working out the transfers. Did you headhunt certain people to say they were the sorts of people you needed for this new organisation? In addition to offering ...

Many of the research staff were clearly involved in research as such. The major argument really was actually who got the research centres. PISA under Ray Dundon had retained the asset ownership of the research centres and even the farm staff that ran them in order to convert them into agriculture centres which provided the basis of both research and extension. This did give some angst to SARDI because it didn't really command the staff responsible for doing the fieldwork on the research centre itself, nor did it really have command of the land on the research centre. So there was a negotiation over a year or two subsequently that resulted in that position being clarified and SARDI then more clearly getting control of the research and development facilities on the agriculture centre sites. It also resulted in other people starting to co-invest, most notably in Minnipa where the Grains Research and Development Corporation has put considerable amount of money into developing facilities for Eyre Peninsula grain-growing research. The Eyre Peninsula community has been a very strong supporter of Minnipa over the years. The total grain production of Eyre Peninsula is a pretty significant part of that in South Australia. So the GRDC has developed joint ventures there and the university has also been brought into those joint ventures. To some degree they would have their origins in the sort of co-location that [we were] doing on the Waite campus. That's been a pretty significant development although I personally wasn't particularly closely involved with that because the CSIRO wasn't a participant in that process.

I was going to ask you about the decision to put SARDI up here at the Waite area.

Some of the origins of that go back to the co-location agreement and where the buildings that were to be built. One of the buildings that was to be built was an office building that would hold the headquarters of the university, the senior staff of CSIRO, and the senior staff and head office functions of the Department of Agriculture. When PISA was created, it then started to contain things that had no particular relevance to this campus, notably all the fishing people for a start and more recently Mines and Energy [Department]. So the decision was taken that the State government would not fund the erection of what was perceived to be the headquarters or administration building on the campus. So that site is still a car park and it's opposite to the eastern door of the main Waite building. By then we had to identify where would the headquarters of SARDI be. There didn't seem to a lot of sense in it remaining in the Grenfell Centre, even though the headquarters of PISA then remained where the Department of Agriculture headquarters were at the Grenfell Centre. The Plant Research Centre was nearing

completion but it was still at the fit out stage and it was possible to make some rather small rearrangements that did provide a small headquarters area for effectively the Chief Executive, the Director of Research at SARDI and the support staff that they needed in terms of personal assistants at the Plant Research Centre. That was done quite quickly and when the Plant Research Centre opened the headquarters staff moved there and administrative staff (finance and so forth) ... a small space was found for them down on the lower floor and that worked out pretty well because it did show that the leadership of the South Australian Research and Development was clearly on the Waite campus. Indeed, in more recent years it's fair to say that Rob Lewis has provided much of the leadership and the continuing development of the campus.

Perhaps just pause and I'll turn the tape over.

**[31:33] End of Side A, Tape 5
Tape 5, Side B**

[0:05] ... personal situation in regards to the transitional arrangements, leaving the Department of Agriculture and coming to SARDI and ultimately CSIRO.

As far as the transitional arrangements were, obviously I was involved with quite a few things within the Department of Agriculture. Ray Dundon was the incoming Chief Executive of Primary Industries SA (PISA) but he didn't have a significant agricultural background so, in fact, I continued (even though by then I was Chief Executive SARDI) to perform numbers of the functions that I had previously been doing as Director-General of Agriculture. The most obvious of those was the role that I had for representing South Australia at the Standing Committee on Agriculture and Resource Management – as I think it was by then – and the similar Ministerial Council meeting. So I continued to represent South Australia at meetings in late January of 1994. Gradually, by briefing Ray, I managed to transfer various things over to him.

I also did have some other activities going at the time. I was involved in a review of the Queensland Department of Primary Industries research activities with Ted Henzell who had been my predecessor in the job I later took up at CSIRO. I arranged with CSIRO when I took up the position as Director of the Institute of Plant Production and Processing that I would continue that role and we eventually produced a report suggesting some changes in the Queensland Department of Primary Industries. We had a number of overlapping activities, some of which I took with me, which in a sense were personal appointments of one sort or another.

Other things I did were to chair the selection committee for the Land and Water Resources R&D Corporation and I did that successively every two years for six years, initially, from the base of the Department of Agriculture and then later within CSIRO.

I had earlier also chaired the Egg Industry Research Council which was the Egg Industry R&D body when I was in the Department of Agriculture but I forewent that after one 3-year term on the grounds that being Director-General really didn't provide too much time to continue that, although I found it quite interesting and we had a good Executive Officer who dealt with it – Hugh McMaster, who dealt with all of the policy issues in the egg industry and so forth.

One did maintain a few balls in the air of various kinds. Of course, I still had some interests in historical areas in terms of dealing with Peter Cahalan and the History Trust and that sort of thing.

[3:25] What was the situation with Dundon coming in? Had you retired as Director-General or were you transferred?

No, I was transferred to a new appointment as a Chief Executive on, I suppose, the same terms and conditions. So it was just a transfer within the Public Service. It was only when I was offered the job of Director of the Institute of Plant Production and Processing in CSIRO that I formally resigned from the South Australian Public Service, though I probably could've taken a package because they were handing them out so fast and furiously and as part of the automatic generation of letters to everybody in the Department who was entitled to consider redundancy I received a letter from myself offering me up to \$169 000 to take a package. (both laugh) But that was all computer generated. I thought if I took a package and immediately became a director in CSIRO, it would not create a very favourable odium on my departure – I didn't really think it was worth it, that option.

That option to move across to SARDI versus staying in the Department proper: was there a possibility that you ...

No, that wasn't an option. Basically the heads of government departments are appointed by the Cabinet and in making the restructure they appointed all the heads of the departments to take over the role of Chief Executives of all those new departments. I was told by Peter Crawford, quite clearly, the Department of Agriculture has been abolished; Primary Industries SA and SARDI have been created; your role as Chief Executive has been transferred from the old Department of Agriculture to that of SARDI – just like that. So I then went back to bed.

We're going come back to that another time, I hope, to the actual review that was going on, but from your comments earlier, it sounds like this split and creation happened before the review was completed.

Yes. My recollection is that the people from McKinseys, who were leading the review but also had a small group of about six people from the Department of Agriculture who were helping to support the review process, the McKinsey people met with Lynn Arnold – I should've thought maybe in September/October – to have a primary discussion with where they were heading and

what were the government's aspirations and all that sort of thing. I don't really know to what extent Lynn might have generated any specific ideas in their mind about splitting the Department and Fisheries into separate structures as they turned into and rearranging them but certainly by the time the final Organisation Development Review report was generated and delivered to the government, it did incorporate an awareness that that split had already occurred.

Perhaps in another session we'll come back to that review in a little bit more detail.

Yes.

You've got a copy of it somewhere here.

I believe we can find it.

[6:50] In personal terms, you were being told you're going off to head up SARDI so that offers an opportunity, some challenges I guess. How did you feel about taking on this ...?

Naturally one was, I suppose, disappointed to lose the Department of Agriculture but I think if one has a new job to do one has to overcome any feelings of disappointment and get on and see what are the opportunities for the new role and what can you do with it. In a sense it was an opportunity to try and create a completely new entity and something that was quite novel in Australian terms because none of the State governments had distinct research and development agencies as separate arms of government. So that involved quite a substantial set of meetings which I held with some people in industry, people in other government departments around the State and tried to identify what advice they might wish to give to me in the creation of such an entity within the government. I did that in December 1993 as a starting point when really we didn't have any staff yet, but we were trying to identify our direction. That set of notes subsequently were passed over to Rob Lewis as part of the initial material that you could go further with into that.

Just to clarify, if we can, the timeframe there John. You're talking here about staff coming on board for SARDI in February 1994, you were doing this preparatory work in November, December '93. What had happened in '92, '93? Was it you and Rob based in that research centre running SARDI by name only or ... took a couple of years to actually ...

The exact time of transfer in November 1993 – we're only talking about 2 or 3 months.

What happened before November '93?

We were then Director-General of Agriculture and Director-General of Fisheries in our previous roles. In my case, one of the things that was on the horizon was the Organisation Development Review, but, of course, we were dealing with all the other issues that the Department was dealing with anyway, business as usual – but the businesses as usual was in some respects quite strongly influenced by the amount of resources and effort being put into the Organisation Development Review and, of course, coping with the approach we had to make to

reduce expenditure and the department as most other departments had to do in response to the State gathering its financial strength as best it could to cope with the consequences of the failure of the State Bank.

So in that period leading up to November '93 had PISA formed by that stage, it's named, or were you still in charge of the ...

No. The decision to form PISA was a Cabinet decision made and announced overnight. There was no prior formation of PISA in any sense. Once the announcement was made, it was then up to Ray Dundon to create PISA and me, initially, and then later Rob Lewis to create SARDI.

So it came out of the blue that theret was going to be this new ...

In a sense yes. It hit me out of the blue when Peter Crawford rang me up and I was lying in bed in a hotel at 6 o'clock in the morning in Honolulu.

The renaming and the restructure and everything, alright.

I then told my wife what was going on so that I was ... somewhat.

You had not much chance to adjust to it really, it's come out of the blue, you haven't had any inklings?

No. So you got the new instructions and you got on with it.

OK. When you came over to SARDI, what were your expectations there? Setting up a new organisation. Did you give yourself a timeframe or the government give you a timeframe by way of contract?

No, not really. Lynn Arnold was clearly expecting me to generate a response to the basic decision made by the government and to implement it. It clearly had the implication that if we had to transfer research staff from Agriculture and from Fisheries into the new organisation and exactly who they were and how we went about that was to some degree, left to us. Obviously the Minister of the day who – I'm not sure whether Terry Groom was doing it by then – but we had to meet the general expectations of the Minister. We got on with it and had to try and set the boundaries of the organisation as best we could. Then that was probably further developed as we created, or Lynn Arnold created, the Board of the South Australian Research and Development Institute.

While all that was going on, of course, the builders were still furiously building up here on the Waite campus. So the infrastructure that was to be occupied was underway. Indeed, we were very fortunate that the government agreed to proceed with that infrastructure just after the first awareness of the State Bank affair had been generated. It would've probably been a fairly easy decision to make to stop that process in its tracks. As it happened, it has turned out to be a pretty far-sighted process which has led to considerable benefits for South Australia in cementing very much recognition of the primacy of having co-location and the principles with

greater co-location and integration of research have been followed up widely around the country in things like the Co-operative Research Centre program and those sort of things. Whilst you could say they are much bigger examples and we could hardly claim benefit for suggesting the idea, the recognition of that decision to bring together the research and development groups and then to try to integrate them together from the State government with the university and CSIRO was perceived to be quite innovative in its time.

[14:10] And you ultimately joined the CSIRO?

Yes.

Perhaps we could go on about that part of your career.

Basically I'd been aware that the position of Director of the Institute of Plant Production and Processing had been vacant since the previous February, or certainly advertised the previous February, when Ted Henzell had indicated that he was retiring. I assumed that CSIRO were getting somewhat panic stricken because they didn't seem to have found the appointee they wanted. One of the people they could've appointed was Jim Peacock who was long-standing chief of the CSIRO Division of Plant Industry and an internationally renowned scientist. Jim made it clear that he enjoyed being chief of his division. He liked being right at forefront of science and he didn't really think he wanted the role of being Institute Director, even though he acted in the role for a time before I got there. In due course, very soon after I was appointed Chief Executive of SARDI, I had this phone call from John Stocker, whom I had been involved with, asking whether or not I would be interested in applying for the position of Director of the Institute of Plant Production and Processing at CSIRO. Of course I'd had a bit of a profile in leading the national Agricultural Research Strategy exercise over the preceding few months as well, so I knew quite a few of these sorts of people. I said to John, 'Yes, I suppose we could have a discussion'. Anyway, an interview was arranged with the chairman of the CSIRO Board and John Stocker and a couple of others. By the time I got from Melbourne University back to Tullamarine Airport I was being offered the job, by telephone.

It's a long journey!

I then accepted. After consulting with Lynn Arnold as Premier and as a courtesy, I accepted the position took it up reasonably quickly there afterwards which then led of course to the creation of the SARDI Board as a subsequent parallel exercise. That meant that I was still maintaining a lot of contact with the people that I had known in the research part of the Department of Agriculture now at SARDI as chairman of the Board, whilst also having to come to grips with what ultimately turned into about 3000 people in CSIRO, many of whom I didn't really know at all. It was quite a job to gain acceptance in CSIRO on the one hand, but maintain reasonable

momentum in trying to create this new entity in SARDI. Anyway, one way or the other we got a lot of very good commitment and Rob Lewis took the flag forward very effectively.

With the CSIRO were you based in Adelaide?

I had a personal office in Adelaide although most of my office was in Limestone Avenue in Canberra. My Finance Manager and policy person and communication person were all in Canberra. In Adelaide I just had my personal assistant, Mary Siggers. She had been my personal assistant as Director-General of Agriculture and she had transferred to SARDI when I went. CSIRO made an offer, if she wished to join CSIRO, and it was to some personal advantage. She thought about it and the [possible] consequences. I made it clear to her that she was to do what was right for her, not in any sense of an obligation to me. Mary chose to come to CSIRO and that worked out very well because she knew enough about the various interstate organisations, including CSIRO, to pretty quickly develop on that a greater understanding of CSIRO. She also knew a lot of the university people and, of course, knew a lot of the old Department of Ag. people. So when we established a personal office here in CSIRO on the Waite campus, which is of course the campus to which SARDI then moved, Mary was a great facilitator of all of the relationships and she did so very pleasantly and with no conspicuous delusions of grandeur on anybody's part. It worked out quite well. She was very quickly accepted by the people in CSIRO and they helped her understand how the organisation worked.

By that time we had faxes: a lot of stuff was faxed here and very soon afterwards everything started to come electronically. There was a lot of initial trouble in CSIRO. A lot of their systems were not compatible so we'd be sent documents we couldn't read and that sort of thing. All those problems, which are all part of the teething difficulties that everybody was having with electronic communication, they were all overcome within a few months. Of course we could then communication with the university, SARDI and everybody else pretty well.

[20:00] It's staggering to sit here in 2005 and think back to only 10 years ago to how things were being done. It's so ... having to come to grips with the technology, the changes and the impact that's had on how we are able to do business.

When we were setting up SARDI, we had a young guy there who did understand a lot of this, better than we did, so initially in SARDI we had our own internal e-mail system, which was all DOS-based, but he knew how to get out into the world wide web, so he had access to other sorts of things, and what the concept was. We sort of said, 'Gather all this more strongly and when we're more confident ...' then of course you listen to those sort of things.

It was about that time that I took up writing an annual Christmas letter from our family at home to various people and my wife continues to dine out on the fact she had to turn the computer on and get it all cranked up and then I would do the actual preparation and then she'd have to save

it and close the computer down and so forth. Of course, more recently, particularly since Mary and I both retired and I didn't have a PA, I had to start to learn some of these skills more specifically. For example, when I was doing the 250-page review *Water Recycling in Australia* (which was last year for the Academy of Technology, Sciences and Engineering), one could actually put the document together and edit it and put in illustrations and graphs and everything else because one has to learn by just trying it, how to pick up these new fangled technologies.

That's a feeling that comes through in the agriculture story: we talk about technology on the farm, but in this case it's technology in the office and the administration. It is quite staggering to think. In former times you'd have Mary as personal assistant doing it, some of the mundane tasks ...

You'd have typing pools for ...

Yes, typing pools and ...

Typing pools, of course, virtually disappeared.

Along with the pink and the blues and the greens and the yellows [sheets of paper].

Yes.

[22:25] You said Mary Siggers was your personal assistant. How long did she work with you, roughly?

She wasn't there when I was first appointed Director-General. Jim McColl had appointed a new personal assistant, not that long before he retired. Mary probably came after I'd been there about a year. She'd previously been at Northfield working in the laboratories. So she already had a pretty good knowledge of the Department of Agriculture. It was suggested to me that she might be a suitable person. She applied for the job and had some interviews and things. It worked out fine. She had one or two constraints. One of the things was she didn't drink coffee. So when I was Director-General we thought we'd better get a system so we could offer people cups of coffee, so we brought ourselves a dripper which was then fashionable for coffee. You put the grounds in the top. The only thing was that nobody had quite told Mary that you also needed filter papers. So the first time she made the coffee she put the grounds into the plastic cup and then the lid blocked up when the dripper started dripping and we had the hot water running all over the place. But we overcame that with a little bit more experience shortly afterwards. Everybody took that in good heart.

That role of a personal assistant is very important to someone like a Director-General, with that many things happening around the Department, at the government level, with other organisations.

It's the person who is discreet, that knows what you need to know, knows how to handle incoming enquiries so that the person enquiring feels that they've been attended to and notice has been taken of the issue and it's been dealt with, and can foresee the sort of things you might require so if you were going to perhaps attend a meeting, knows some of the things you might want to take and gets them out and puts them in a pile and that sort of thing. I probably wasn't a

great delegator, and never have been, so that would make it hard for Mary to live with to some extent. She understood the system and we got on pretty well effectively. That's the way things should be.

It's important, a good assistant like that in your role. Did you have a typist and a secretary as such?

No. Mary as the personal assistant did all that sort of stuff.

So she'd organise diaries for you, when you weren't doing them!

Yes. She'd maintain the diary. When we came to CSIRO, of course, it was then all set up in a computer format so I just maintained the same format she set up which isn't a standard Microsoft product, which I find is not suiting me quite so well, it's just a Word document in a particular style and I [have] just maintained it since we started in 1994.

[26.55] That leads me to ask John about, perhaps a few things about your management style. We've got a few moments left. Just to round out the tape today. Your style as D-G? You say you weren't a delegator.

There were some sorts of things I would insist on seeing and signing myself, particularly answers to Parliamentary Questions and Ministerial Enquiries. I thought it was important that people knew whether or not I actually read them so I used to insist on signing those, but they would be prepared by the various directors within the Department. The normal system was that somebody would write to the Minister about something. It would then be sent to the Department as a Ministerial enquiry – 'What's all this about?'. Then it would go down the line to whoever knew what it was about. That person would draft a reply. There would be two components of that, in most cases. One was a formal advice to the Minister in a draft folder and the other was a draft letter for the Minister to send to whoever made the original enquiry if that was one of the requirements. In the case of Parliamentary Questions, it would be a text that the Minister could use in responding to the question. So it would be signed off by the relevant director within the Department. If I was comfortable with it, then I would sign it and go around to the Minister's Office.

We also had a Ministerial Liaison Officer who served to facilitate relationships between the Department of Agriculture and the Minister's Office. Those people were notionally appointed for three [or six] months in order to get experience of how governments and Ministers worked. The only slight problem is that Ministers rather rapidly found them indispensable so we often had trouble getting them back home again after three months – several of them were there for six months. But it was a very good training experience and numbers of those people have found that valuable in their career progression.

In terms of how we interacted as a Directorate, we did have periodic formal meetings – once a month as I recall. But every Monday morning, we would meet to what loosely was known as

'grunt' which basically everybody said what they were doing, what the issues were and what they were doing during the week so we roughly knew where each other were and what we were doing. So we just went round the table and people spelled out what they thought were the hot issues, what they'd learnt last week, what was on the horizon this week and anything we needed to have a quick discussion on as an informal communication. I used to just keep a little list of the dot points of what the issues were that were raised and I've still got all those notes.

You showed the notebooks earlier with some of those examples there.

There probably not comprehensible to anybody else, but they remind me of the sort of issues that we had.

But you seemed to cover, on the one page, a fair bit of material – six to eight, ten bullet points from each director.

Yes. We tried to maintain that. If somebody was away or I was away, somebody else would lead the discussions so that it was important to keep the communication up.

The other thing I felt was important was to try to get to know individuals as best I could. So when I became Director-General I would go around and visit the various locations. People have a bit of a tendency to want to front the whole staff at once. I really didn't want to ask questions of individuals [in front of] the whole staff at once. I really preferred to meet them as individuals on a one-to-one basis so they could tell me what they wanted to tell me, rather than perhaps being in front of a gallery of other interested people to which they could either pay or play or to which they might not wish to expose certain points of view. I thought that was quite important. Philosophically, I also tend to subscribe to the view that people will get into less trouble knowing too much than too little. Trying to be unduly secretive is not a constructive component to management. If people feel that one is reasonably open and honest they know what's going on, that's fine.

I would have a reputation of not always being terribly diplomatic. That perhaps caused difficulties for people I didn't know very well or they didn't know me very well. But I generally got on pretty well with all the people I worked a lot with. I eventually kept resort into the advice that said, 'If you're not sure of whether you're being got at by me as a manager, you're probably not being got at because when you are being got at you'll have no doubt about it!'. (both laugh) Overall, we got by fairly well. I certainly enjoyed the time as Director-General. I dealt effectively with three Ministers in that time. Frank Blevins – not for very long – who was quite a decisive person. You'd give him advice, he'd make his decision and that was fine. Then with Kym Mayes, who is now with the University of Queensland but had a background in the Public Service Association as Secretary prior to coming into Parliament. We got on quite well. I took him overseas to North America. Then, later, Lynn Arnold who ...

[33:30] End of Side B, Tape 5
Tape 6, Side A – Session of 15 March 2005

[0:25] John, last time we talked about some of the things happening in the Department towards the end of your time as Director-General. One of those we touched on was the organisational review. I think you've done a little bit of homework, so to speak, in the intervening few days since we last spoke. Perhaps we could pick on that review process.

The review process really derived from two things. One was the need for the State to try to minimise its expenditure because of the impact of the State Bank affair and there were reductions in expenditure being imposed over most of the Public Service and that included the South Australian Department of Agriculture. We were told that our annual expenditure in the period from 1989 to 1994 would have to be reduced by something like \$13 000 000 at a time when we were getting about 46 to \$48 000 000 a year from the State Treasury. That 13 000 000 was made up of 9 000 000 odd of actual reductions in expenditure as of the start of the process, and we would also not be given any inflationary increases in the following years. So by 1994 we would've had to have saved something like \$13 000 000 and that was something like a quarter of our total budget. We gave a bit of thought to that in our Senior Executive team and in particular Rangan Srinivasan, who was Director of Resources or some such title ...

A Corporate Services type position?

Corporate Services, yes.

... had had experience of consultancies in other places and suggested we should think about hiring a consultant and in the end result we hired McKinsey, who established a team within the Department of Agriculture to review what we were doing. The team was lead by Peter Gibson, who was involved with research management at that stage. After we'd found some other staff members across the Department and people in some of the country locations all were a part of the ODR team, helping gather data. Then senior participants from McKinsey's would review the data and between them perhaps explore what options there were. Ultimately, McKinsey's individual team, from the company, wrote a report. The report contained a number of aspects. The thrust of it was that there should be an end-to-end relationship between the origins of the science and research work, undertaking of extension work leading over to the production system, adoption of technology by farmers and feeding back to the research priorities at the other end as and when necessary, a linear model if you want to call it that. Linear models have tended to be a bit less fashionable in more recent times than they were then.

We had a Department of about 1100 people and we were trying to identify how we'd save a quarter of the budget. Of course, we were at that stage getting [\$]23 000 000 external funds

from rural industry research funds and other areas so we were already quite significantly dependant on outside money.

That [\$]23 000 000, by the way John, does that include Commonwealth money?

Yes. It would include Commonwealth monies such as the 50% matching funds generally speaking that went with the growers funds in the R&D corporations.

That's 48 from the State and 23 from others.

Yes. Of which perhaps approximately half would come from the Commonwealth indirectly.

Anyway, the report also had some other perhaps slightly surprising components. It suggested we should be spending more of the budget on extension and less of the budget on research. I had some concerns with that and indeed wrote quite a long letter to the Minister of the day when the report came out saying that this was not terribly logical. Of course, with the research part, the Department had the opportunity to more easily get external funding. The report did, however, suggest that future investment in research should be oriented more towards those industries that had potential to expand and develop and would add more value to the State's economy, that included the wheat industry, perhaps the grape and wine industry. Those sort of ideas were quite reasonable.

The report did not understand some of the other issues such as our role in rural adjustment, which was following through really Commonwealth-led programs which were carried out by the State. Indeed, the government did not accept the recommendations that were made in regard to those sort of things. It didn't really appreciate the worth of things like the Advisory Board of Agriculture and the Agricultural Bureau movement as a large number of growers who could contribute to getting the message out and also provide advice on our future research directions.

Given that the Review failed to understand these aspects, leads me to ask how closely involved was that review team with the Department and with people such as yourself? How could they not come to grips with that?

The senior participants in the Department stood back from the process because it was really for McKinsey's to undertake the process and they had a younger team of middle-level participants, who could be perceived as part of the succession planning program for the organisation and [some have] subsequently taken quite senior positions either in SARDI or Primary Industries and Resources SA or, more recently, in Water, Land and Biodiversity Conservation. For the training experience point of view, that was a good investment but those people also indicated afterwards that they had pointed out some of these issues but the McKinsey people hadn't apparently got the message despite the suggestions made to them. The State government did certainly not buy all of the recommendations.

The other point to be made is that the decision was made to create SARDI and to create Primary Industries SA as it then was, before the report of the Organisation Development Review was actually handed down by McKinsey, so their final report actually includes the decision already taken to create those two separate organisations.

Overall, my recollection is that the process cost a couple of hundred thousand dollars for McKinsey, plus the time of the staff who were diverted into the exercise. These things are pretty cathartic for the organisation. The McKinsey people, of course, made a lot of use of simple charts but they do have very bright young people who work for them and often those people work for people like McKinsey for two or three years and then they will get a senior position out in the industry somewhere because a McKinsey background is perceived to be a good sort of background.

That really was the outcome of the review and it did lead to greater focussing in certain areas and the Department, particularly through Primary Industries, did set up a program-based structure. At the same time, it was also when the concept of purchaser/provider was coming into vogue and the suggestion was that the money for research from the State should be given to Primary Industries who would then expend it by contracting SARDI to do the research. Now the end result was that didn't really come to fruition in quite those terms. Other States tried it and generated a good deal of aggravation and aggro between the two sets of people – the purchasers and the providers. Again, it's shown to be a rather doctrinaire view of life and it hasn't been terribly successful and been largely discredited even though on theoretical grounds it's got something going for it. It works in the real world, such as an R&D corporation which is representing quite independently the purchaser or the growers, then it's fair enough, but in an internally structured thing as within the Public Service it's so artificial as to not be terribly realistic and the bottom line is that the Minister still has to respond to the electorate anyway.

[10:05] I wanted to ask you a bit about that notion of commercialisation of activities and how that'd evolved over time and ...

Commercialisation is often enthusiastically looked upon by Treasuries as a means of generating revenue which can offset State government expenditure. Rarely does that actually happen. In my view, commercialisation should be seen as an aid to more effectively getting out the message. If you have a new technology and you give a monopoly right to a company to use that technology and market it, that gives that company a very strong incentive to get the message out into the community. On the other hand, if you had a new technology and it's open slather to anybody, then anybody wanting to pick it up will be nervous about how many other competitors will also pick it up and is it worth their while to actually do that? The area where this can become important is new plant varieties. Quite soon after SARDI was established it

started to commercialise breeding material from things like its lucerne and medic programs and would negotiate the rights to particular varieties under the then fairly new plant variety rights/plant breeders rights legislation which enabled some return to SARDI from the price of sown seeds.

I'd also looked at that sort of issue across CSIRO a year or two after I joined CSIRO. Generally speaking, the commercial returns to CSIRO did little more than just balance the total cost that was invested in protecting all the intellectual property involved. One of the few examples in CSIRO where it was successful was in cotton breeding, where within a short time CSIRO varieties represented something like 94% of the total cotton that was planted in Australia. But again, it's a very tight-knit industry with a small number of growers, about 1000 growers, and much easier to deal with than something like the wheat industry. A lot of these cereal industries have gone forward since then, in fact to impose end point royalties because the problem is really to get the royalty because in the case of wheat industry in many cases seed is kept from year to year, it's passed over the back fence and so forth and getting a reliable royalty scheme has been difficult. Some of the more recent varieties have involved a right to collect a royalty from the receiver of the commercial grain after it's been produced and put into the grain-marketing system and that seems to have been fairly effective.

[13:10] There's a long tradition, for want of a better term, within the Department of this commercial aspect. I'm thinking of dairy work and the margarine/butter type situation.

When you say there's a long tradition of commercial work, it's a long tradition of undertaking research for the community at large and really a tradition of saying, 'We are doing good works for the public at large and everybody should have equity of access to the technology'. So people in Department of Agriculture and SARDI, and for that matter CSIRO, have historically not been all that enthusiastic about trying to generate revenue from commercialisation because they almost see that as perverting the good works that they think they're employed to undertake. I have some sympathy for that point of view.

[14:05] It brings into play another leading question, of course. What is the nature of the Public Service? The Department of Agriculture is a Public Service department.

Certainly within the Department of Agriculture there was a strong feeling that we were there to assist the rural producer. There were sometimes a sort of perception that we were the farmers' friends and there was sometimes a perception in other parts of the Public Service that in any debate we might tend to be supporting the farmers no matter what the political or economic logic of the matter was. Perhaps there's a little bit of truth in that, but I always found that almost all the staff were very highly motivated in their role of supporting the rural community one way or another. The same has been true in CSIRO. Motivating researchers is rarely a

problem because researchers are strongly oriented to the thrill of the scientific chase and inherently perhaps hoping some good might be coming of their research.

Do you think that's changed over time, this relationship between the Department and the rural producer? I'm thinking now in more recent times where it's user pays and things are a bit more commercial.

What's happened is that we have less small producers, other than hobby farmers. We have larger producers. They increasingly recognise that agriculture is a much more technically skilled activity and they are increasingly seeking advice as objectively as they can get it. Many of them are now willing to hire consultants. There's a range of consultants: some are in Rural Solutions, which is a branch of Primary Industries and Resources SA, but there are many others that are in private practice. They all seem to be having quite a substantial impact. Some of the ones in private practice, of course, have had their training and early career in the Public Service. But there's scope for all of these people out there. At the same time, organisations like SARDI do need to make their generic technology available to a cross-section of people, including other consultants. There are some examples where SARDI has set up quite specific activities, such as the root disease testing service, where they retain the intellectual property and, indeed, licensed other people in other countries to use it – that has been successful too.

[17:15] It seems that it's the era of the user pays, almost setting up the potential for the rural producer to see the Department, in this case, as less of a friend. In former times 'We're all working together for a common aim; now you've got to pay for our services directly as opposed to through taxes ...'.

There are other parts of Primary Industries and Resources, of course, who are not in Rural Solutions and who are involved with particularly the policy development and economic progress of agriculture. Much of those activities are the same as they always were. They depend on a sound knowledge and association with the rural community, so I don't think that's changed very much. The fact is that the Department through what's now PIRSA (and SARDI for that matter) are resources which are available and seen as resources that are helpful to the rural community.

Some of the things that did come out of the Organisation Development Review... [phone rings]

[18:30] OK John, before we follow through on that point of some of the outcomes of the review, just going back to the origins of the review. The underlying rationale is to save money, to restructure the Department? I know you're saying it's coming out of the impact of the State Bank and need to save money.

The basic objective, of course, was to generate the saving of something like 25% of our State budget component. We had, of course, had quite a long period of previous reductions and not being given inflationary increases and so forth over I'd say six or seven years before that. So I must say when the extent of this expectation was raised, we set up good deal of hand wringing, you might say, to put it politely. That led to the suggestion to undertake the review. If you were

doing the review and having a saving of that dimension, then obviously you're going to have a different organisation from the one that you started with. So the basic objective was to have a detailed review of the organisation and recommend a strategic organisational development plan and that would lead to the future.

There were a number of issues that were defined to be addressed in the process of undertaking the review. We were to see if we could make the organisation more market and client oriented in identifying and developing and delivering various products and services. There was a need for the Department to demonstrate the benefits of its activities in relation to its costs, so it wasn't just a charitable exercise. We had to clarify the Department's role in natural resources protection, public health, responsibility for rural affairs and economic development of South Australia through agriculture. All this was done at the time of the A.D. Little Report which had looked at the future of the South Australian economy and it had come up with a fairly bleak view of the future because of the limited resources, limited rainfall that South Australia had in relation to most of the other States. It's interesting also the natural resource protection aspect was starting to become more recognised and has become much more important within government since this period in the early 90s.

Indeed, just the use of the term itself, natural resource protection.

It had followed on, only a few months before, with the review and the development of the concept of ESD in Australia (environmentally sustainable development). In a sense, that had its origins in the Hawke Government and worldwide was seen to be as something of an innovative development.

Going back to the other issues to be addressed, there was the issue of relocating to the Waite campus and conceptually that had intended to be the whole Department and also the potential for the establishment of a co-operative research centre in South Australia. This was at the time when the first of those centres were mooted and established. Indeed, I had been to a meeting in the Cabinet Room in Canberra with Harold Woolhouse and Albert Rivera to help bolster the case Professor Ralph Slatyer was developing to start the CRC program and which was successful as it turned out.

Also, the issue was raised as to what sort of scope there was for rationalisation of service providers from other States. We had already done a little bit of that in what was known as Riverlink, which was integrating the services of the South Australian Department of Agriculture, the Victorian Department of Agriculture and New South Wales Agriculture in the Sunraysia Riverland in which we'd divided up various functions with South Australia taking responsibility for soil and water management advice, the Victorians were doing tree crops, the

New South Wales people doing citrus and CSIRO was also into that from their laboratory at Merbein, particularly dealing with viticulture. That was already successful. Indeed, it is still successful 10 years later with each of those organisations serving the whole region rather than little separate groups covering all those patches in all of those organisations in some way and it did involve a lot of delegation to the people out in the region.

Just going on bit further on the McKinsey terms of reference. The final one was the consideration of funding arrangements within which the Department must operate and they were really the need to make the savings. The end result of a lot of that was that, I felt anyway, the McKinsey report didn't really address any issues relating to the relocation to the Waite campus and the CRC issue and nor did it address in any way the rationalisation with service providers from other States and it's notable that now here in 2005 the Primary Industries Standing Committee is once again trying to address the issue of rationalisation of research services between the States, with particular States picking up national responsibility for particular areas.

I do digress a bit there from the Organisation Development Review but some of the things that did happen that followed were more of a concentration on particular areas of pig and poultry research. That was relocated to the Roseworthy campus at the University of Adelaide as a joint venture with the university, with the now SARDI staff contributing to teaching programs and the extension programs as well as research programs. More recently, there has been somewhat of a similar move in terms of a focus on wool also being based on the Roseworthy campus.

Overall, there were a number of things the government did agree to. Clearly, the role of the government agencies in PISA and SARDI was to emphasise economic development and maximise the value of agriculture to the State. The State would minimise its funding to things like pig and poultry research, would reduce activity at the Kybybolite Research Centre and the Wanbi Agricultural Centre, which was really set up in the 1940s to demonstrate soil conservation on drifting sand hills and had done that, that was ultimately sold off and Kybybolite was still retained as an outstation of the Struan Research Centre where the regional headquarters for the South East had been established.

Research centres were to progressively operate on a fully commercial basis. That's not terribly easy to do because some of the treatments that you will have to undertake on a research centre are not necessarily economically viable, but you've got to have a range of treatments in order to identify which are the best ways forward. It did mean that the government gave more flexibility in how things like, say, livestock were managed. Historically, if you sold any stock the money went to consolidated revenue and then you had to get a further grant to buy new stock, which

meant that you were not in any way trading on any sort of commercial basis in the way that farmers would husband their livestock resources and respond to droughts or good feed opportunities and so forth. So certainly more flexibility was built in there.

There's a notion there, of course, that you have to invest: if you're doing the research, doing experiments, not everyone is going to work ...

That's right.

... so you need to invest. Did the government support that?

It was inherent in later years that even the basic resources of the research centre you would have to provide scope for that and then we maintained – I can't recall the exact name of it – but an animal production fund in which all of the sale of livestock was put in and then funding could be taken out of it to buy new livestock depending on ... Effectively a trading account for livestock and that gave the flexibility to research centres to do what they wanted to do. If there was a large surplus build up in that fund the Treasury would occasionally cream a bit of it off.

We also looked at the portfolio of district officers. That's probably changed a bit over the years and has been logical.

There were also issues about diagnostic services. In the end result, what had been in the Department of Services and Supply, the diagnostic services of the State Chemistry Laboratory which included things like food and analytical chemistry and those sort of things, it was suggested after they were transferred to the Department of Agriculture (which had been only a year or so before), a lot of that ought to be contracted out to the private sector rather than being run by the government. The end result was that the Cereal Section which did all of the laboratory work on grain quality underpinning the breeding work was transferred to laboratories that were developed on the Waite campus. The rest of it was, in fact, pretty largely foregone and allowed the private sector to pick it up. It's interesting to note that more recently, as I mentioned earlier, SARDI has established a root disease testing service bringing in highly automated equipment, making use of DNA technology which they had access to by relationship with CSIRO entomologists. So in response to quite specific demands and similarly for other soil testing services for nutrition, there has been maintained a role for SARDI in diagnostic services.

[Phone rings] What else? We'll look at some of the other recommendations. We had to make changes to administration (that's always on the agenda), but the government did decide to retain what was known as the Rural Affairs Unit and the Rural Finance and Development Division, despite the recommendations from the McKinsey Report. Went on to develop

program areas as the primary line management and the move to fee-for-service consultancy and that's led to the creation of Rural Solutions in Primary Industries and Resources SA.

And that would be making some money for the Department?

Offsetting the cost to consolidated revenue. Clearly all that took place after I'd moved to CSIRO so I can't give you a lot of background. It was also important that there was clearly a relationship for research and extension between SARDI and PISA. Of course, later SARDI actually structurally came back within the fold of Primary Industries and Resources SA anyway, although it has maintained an inherent market position using the SARDI name and a fair amount of freedom of action and is now more than 50% externally funded.

Apart from that separation into SARDI and PISA, what would you see as the main outcome from the McKinsey Review?

It's arguable that a separation was part of the McKinsey Review anyway. It was more or less superimposed by the government halfway through the McKinsey Review.

As you outlined.

The major end points will be the focusing on more specific programs and perhaps putting a primary emphasis on those parts of agriculture which have the most potential for economic development. That's fair enough. Perhaps a greater investment in natural resource management but that's really responding to other forces than the McKinsey Report and, indeed, resulted in the Natural Resources Group within PIRSA eventually being hived off to create part of the Department of Water, Land and Biodiversity Conservation. Though those people maintain a close relationship with the PIRSA people much of that's done on a basis of the old networks that existed previously and it's important that those networks are maintained.

They're coming out of the land-based activities anyway.

The fact is that the farmers are responsible for the stewardship of quite large areas of land and they have to be economically viable as well as environmentally responsible. Often those two things put together is not easy.

In terms of the savings that could be identified, was it intended to save \$13 000 000 over a period of time?

The net effect – that was an annual ...

**[33:25] End of Side A, Tape 6
Tape 6, Side B**

[0:04] ... review and obviously things carried on after your time as Director-General and things changed as a result of that review. Looking back historically, I'm just wondering how John Radcliffe felt about not just the McKinsey Review but the review process. You can rattle off the A.D. Little report you've mentioned, the David Corbett Review in the '70s, you've got the Callaghan Review with

the regionalisation and the Government Agencies Review Group (GARG). All these things, and there are others, take place over time. It just seems as if you're in a constant state of flux.

The basic fact of the matter is that society and the community and the Public Service are evolving all of the time and these various reviews have been initiated. The first one I was conscious of was the Callaghan Review. Sir Allan Callaghan was very highly respected. He had been the Director of Roseworthy College and later was Director of Agriculture and when the government asked ... got him to undertake a review, there was a lot of sympathy for somebody of his background and stature undertaking that review. The outcome of his review was to lead to a process of regionalisation in which there was greater delegation from the head office of the Department to people in five country regions. There'd been a bit of a background of [administrators] leaving Adelaide roaring down in a great cloud of dust to distant country locations, giving various bits of contradictory advice to various people they saw and then disappearing over the horizon and letting them to make what they could of it. That's probably a bit of an overstatement, but that was sometimes the perception, particularly among some of the younger scientists who were scratching their heads a bit at the time.

It sets the scene.

Yes. Anyway, what Sir Allan Callaghan suggested was that there should be headquarters established in the South East, in the Central Region, in the Riverland and Eyre Peninsula. There were some parts we never knew quite what to do with. The Central Region, one didn't quite know where to put the headquarters: was it in Adelaide, or should it be in the Hills, or where should it be? And the regions were quite different in size. We had a lot of resources down in the South East whereas the northern region, which took in most of the pastoral areas, did not have a lot of activity involving the Department of Agriculture – much of it revolved around the Pastoral Board and Department of Lands and others, so you had quite a small group of people based in Port Augusta, a larger group based at Port Lincoln. That was an interesting exercise. The individual research centres initially were, in fact, controlled by something called the Research Centres Branch. They tended to have some independence from the regional management. They were run by a guy called Harold Chamberlain in Adelaide who was a veterinary scientist from way back. A very pragmatic individual. Anyway, over time the regional people had more control over the research centres and gradually got to command them. That could mean, however, that there was then a bit of a 'we and they' relationship between the regional people on the one hand and the headquarters policy people of the Department in Adelaide. In all restructures there are things for them and things against them and people shake them out as best they can over time.

Anyway, they had a Director of Regions that coordinated the various regions. Generally speaking it worked fairly well. The time when I was Director-General I was encouraging the

regions to develop their own programs and project priorities. We would go down to the regions and we'd give them an exercise: if you had another 10% of money, what would you spend it on?; and if you had 10% less money, what was it that you would see as the lowest priority that you would forego? Usually they would do that sort of exercise pretty responsibly although one or two of them would build on another 10% and use it to replace the 10% they'd foregone in the previous exercise which wasn't terribly helpful. It did give the notion of introducing project management across the Department because each region had its own group of research and extension projects. Some structures were put in place so that they were formalised and had some approval of the management in the region, they weren't just enthusiasms for the individuals to appear to be doing what they were doing. The Victorian Department of Agriculture had done a somewhat similar exercise earlier but had carried it rather far: I was quoted the example of one of the extension staff at Mildura who included having a haircut once a month in his program structure, which did seem to be a bit unsatisfactory. We also used to have to try get the data together so we could interpret the outcomes and that was all tied in to the financial system. Victoria had set up a system in which the project structure for research was unrelated to the financial system, which was a particularly unsatisfying arrangement, whereas we'd set up a structure which was directly reflected in the reports of expenditure which all the scientists got and they could command their own budget. My experience is if you delegate responsibility for expenditure to people, they will very much take responsibility and, indeed, will very much tend to underspend because they'll squirrel it away for a rainy day, which can mean that you have quite a lot of money left over at the end of a season and you have to be careful there about what arrangements are – can you carry it over or do you have to have a large squander at the end of the financial year which was sometimes a temptation. Over a period of time we secured opportunities for carrying money over, particularly where it involved buying and selling the livestock and things like that.

[7:25] That's been in the news of late in the current circumstances, but going back ...

Yes. I think the news of late, where there's been a lot of concern about government departments carrying money over, really is the conflict between responsible management within the department versus the Treasury's aspiration to generate totally discreet annual funding budgets and its accountability for them. In a sense the government has probably made a rod for its own back by re-introducing some of the doctrinaire and rather inflexible arrangements of the past and not understanding the consequences of them.

In your time were things fairly flexible?

They became more flexible with time and we had to work quite hard to encourage that flexibility.

Are you talking significant sums being carried forward?

Certainly in things like the livestock trading accounts, there would be several hundred thousand that would be carried forward. You were also able to carry forward in some circumstances the money that you got from your rural industry research funds because they were held in trust accounts and the trust accounts did not involve State revenue although they were shown as part of the Parliamentary estimates papers and we had to spend quite a bit of time discouraging people in Treasury from running all over that money on the basis that it wasn't actually theirs in the first place but with a bit of care one could manage that and the Department of Agriculture became quite skilled at running a large number of discreet sums of money. The actual sums were really retained all in one fund, the Agriculture Research and Services Trust Account, and they were notionally managed as separate entities. We had the people we called ... There was the trust fund clerk. The trust fund clerk would be very clear in understanding the differentiation of use of all this money. They were very competent officers, often not given credit they sometimes should've had for the skills they had of managing all those separate funds.

You were dealing in an area where you can't say, 'It's the end of the financial year' ...

That's right.

Because you're dealing with seasons ...

That's right. Often the agricultural season, of course ... In fact, most agricultural seasons in most industries did cross over the boundary of the financial year, June to July.

[10:00] Having said that you liked to give autonomy to the regions and to the regional officers and so on, did you find at times that created problems for you?

Sometimes there was a certain amount of independence of action. The sort of problem you could sometimes get is that they would start dealing with the local Members of Parliament, which might be well intentioned but might also have put you in a position of some difficulty when you were dealing with the Minister who was responsible for the Department. So it was important that people understood how the realities of the Parliamentary and legislative and ministerial processes actually operated. We found that when we put some of the regional people to do, say, three months as Ministerial Liaison Officers, that was quite helpful in enabling them to better appreciate how these things fitted together.

[11:00] I was asking that question John because the traditional structure you'd have an apex of the Director-General at the top and everything coming down like a pyramid, whereas the organisational charts in the annual reports in your time have got the square boxes going across pages and so on.

Yes. It's important that there is a clearly defined line responsibility even though it might be a fairly flat structure. Fairly flat structures were fashionable, indeed still are. There are limits to the chain of command that one person can manage. One person is unlikely to manage

competently more than eight people in my experience. You get in a muddle if you have too broad a chain of command. I well recall one of the divisions in CSIRO where people had commands of 20 people and it's not very sensible. But if you give people ... If people can show that they can manage delegation and responsibility then you should give it to them. That's fairly important. But you have to have some quality control. On the one hand I don't delegate terribly easily and I keep an eye on what's going on and have a nasty reputation as being a bit of a nit-picker. But if people know that you understand a reasonable amount of the detail then they'll be fairly careful, but you don't want them too constrained, they can go about their business.

I can understand your comment about your situation there, having heard the story of the memo about the apostrophes.

Yes.

Which I thought was quite charming.

Yes.

[12:55] Back on the question of regionalisation itself. It's probably a blunt question: did it work for South Australia? Was it something that could work ...

Yes, on the whole it did. The reason it was ultimately withdrawn was really driven by the ODR saying that you could probably make quite a number of savings because each of the regional offices had a certain amount of infrastructure and senior staff and if you ran all of those from a centralised location you would actually save money. Probably money was saved. I suspect there would've been some loss of communication with the rural groups in those regional areas. In a way it probably represented an efficiency gain but something of a service lost in terms of local knowledge and that sort of thing. It's a little bit of a pity that we had to lose the regional structures. Other departments went through that sort of exercise. New South Wales Agriculture set up a regional structure for quite a while and delegated quite a lot of responsibility to regional directors. In later years they actually removed most of the responsibility and most of the staff that were part of the administration of the regions, but left the regional directors there as sort of titular decorations that the regions still vaguely existed. That left those particular individuals in a fairly frustrating position when it actually happened.

There's always that personal scenario of ...

One of the other issues that I might comment on too was Victoria regionalised in a different way. It developed one set of regional structures for its extension service and a different set of regional structures for its research services and often the headquarters of the regions would be in different locations. I thought that was a rather an unfortunate development as it tended to divide the research away from the extension function whereas here we tried to ensure they were all together so we had regional research, regional extension and regional regulation.

[15:25] One of the things that comes through in the whole history of the Department is it remains fairly intact over 90 years or so.

Yes, that's true. Even now PIRSA still retains a certain amount of that original ethos and some of it has gone over to Wallaby ([Department of] Water, Land and Biodiversity Conservation).

In that formal period 1902 to about 1992 when the Department of Agriculture existed as the Department of Agriculture, and apart from those three years with Fisheries, it remained fairly intact.

Yes, but it became much more technical. In the early days when it was first created there were single individuals who had [very wide] responsibility. So there was an Instructor of Horticulture, so called, an Instructor of Dairy, and quite a small staff. That sort of overall approach was still there until the beginning of the Second World War, as far as I can see. It was only after the Second World War with the rural reconstruction schemes, soldiers settlement schemes (some of which weren't directly in the hands of Agriculture, they were run by the Department of Lands but meant that the skills of the Department of Agriculture needed to be broadened), we then had the establishment of the Dairy Fund (the dairy extension grant) in the beginning of the 1950s, the Commonwealth Extension Services Grant soon afterwards and then the various ... the Wheat Research Council, the Barley Research Council and the State committees of each of those and an increasing quantity of funds of one sort or another, all of which increased the size of the Department quite rapidly.

The other point to remember was that there was the responsibility of the university to provide services in some fields to the State government, notably entomology and plant pathology, and that continued up until the 1950s and had probably meant that the Department had not invested in those sorts of areas because they could get those services from the university. In the long run, of course, what it's meant is the Department did invest in those services when we then migrated to the Waite campus, the SARDI people in those areas have been co-located with the university people in those areas. Indeed, the university people have probably had difficulty in maintaining numbers and increasingly access some of the SARDI people for guest lectures and so forth for their teaching programs.

[18:20] That's another theme that comes through this story, you've got the Roseworthy, the Waite, the CSIRO, the Department all dabbling, so to speak, all working in these areas, they're collaborating and at times probably in conflict with each other too.

Roseworthy, of course, wasn't an agricultural department: it was an agricultural college department as distinct from the Department of Agriculture. It ran as a separate department of the Public Service until about 1972 when it became a college of advanced education. It had its own board. It had a number of research programs which were funded separately by the State government and quite elaborate arrangements were made to continue those with State funding after it became a college of advanced education. Indeed, for some years I was involved with the

committee that reviewed how that research was going in terms of cereal breeding, small lot winemaking and animal production. Over a period of time the major emphasis mostly became the cereal breeding. Even today it's an important location as part of Australian Grain Technologies which is now the commercialised joint venture between the University of Adelaide, the [Grain Research and Development Corporation] and SARDI.

[19:45] Just on the regionalisation aspect John ... how much dealings did you have with Allan Callaghan?

I'd known Allan Callaghan rather vaguely in my past because his son, Robin Callaghan, was the leader of [the Boy Scout Group in the] Prep. School at St Peters College. In later years I'd been involved with running hikes and things after I'd left school but which were run for the school and one year we had an evening show after the hike at Sir Allan Callaghan's house up in the Hills. So I'd known him in a sort of a way since I was quite young. Later on when I was in Oregon doing my PhD, I had also known that his first wife had become very seriously ill with cancer when Sir Allan was in the Australian Embassy in Washington. Indeed, I sought to call and visit him when I was doing a study tour although as it turned out that wasn't possible to arrange because of his wife's illness about that time. But I had known him and, indeed, when I was appointed Director-General of Agriculture I got a lovely letter from him of congratulations, which I still have and quite appreciated.

During the review process, when he was doing his review, did you come into contact with him at the working level?

Not really, because I was then on the Northfield Research Centre which wasn't really a regional function. It was outside of the Research Centres Branch which I mentioned earlier. It was perceived to be part of the Dairy Branch and it was overseen by Graham Itzerott who was the Chief Dairy Officer. In that sense it was a bit of anomaly, but it was the major dairy research facility for the State and because of its urban location which, of course, later became the reason to relocate it, it was moved outside of that country research centre framework.

So you had contact with Callaghan more on a personal basis rather than the work?

Yes. Occasionally when I was Director-General of Agriculture I'd have a little bit of interaction with him on odd subjects too. He was always a very helpful person, a very gentlemanly person, I'd have to say, very highly regarded.

He seems very well regarded and the fact that he was Director of Agriculture then came back to do the review, to set up the regionalisation program, says a lot about him.

Yes. He had a strong commitment to agriculture, personally.

[23:00] We've probably covered regionalisation from the Radcliffe point of view. You maintained it obviously when you were Director-General. We haven't asked you before: the Monarto episode

which ties in chronologically with the regionalisation concept, but you were talking about relocation out to Waite ...

The Monarto exercise had its origins in the Whitlam Government, the creation of the Department of Urban and Regional Development, the thing called DURD, and an enthusiasm to generate new growth centres outside of the capital cities and which resulted in proposals for places like Albury–Wodonga as a growth centre. The South Australian government, in a token ‘me too-ism’, thought it better have one. So it looked around and decided there was a large area of land at Monarto over the back of the Adelaide Hills which would be suitable for a growth centre. It was about that time that Marshall Irving, he was the Director of the Department of Agriculture, was advancing the proposal to move the whole Department on to the land at Northfield. Most of the working drawings for the architects, certainly all the sketch plans, had been prepared and a model was prepared of where all the buildings would be on the land at Northfield. It was being shown around the Department in its nice Perspex case for everybody’s stimulation. The proposal went to Cabinet to approve the construction of this major new facility, which was also to provide a bit of a scope for Fisheries and the National Parks and Fauna Conservation, all at Northfield: a place to store Fisheries boats and so forth. It went to Cabinet at the same time as the proposal to generate a growth centre at Monarto. So the Cabinet response was to say, ‘There’s a bunch of people that are all involved with the land. We should move the headquarters to Monarto not to Northfield’. That stopped the Northfield thing dead in its tracks and the Monarto Development Commission was established and it proceeded to go about its business. It purchased a whole lot of properties in the Monarto area in the name of the Development Commission. It also established a major town planning exercise, which included a lot of tree planting all through the area. The trees were ultimately planted and, indeed, are there as the principal outcome of Monarto and led to the site of the zoo, for example, at Monarto.

We had to get into the exercise of starting to design what we would do at Monarto. The Monarto Commission were coming around us and giving us the benefit of their vision of Monarto. I well recall a presentation made in the theatre in the basement of the State Administration Centre in Victoria Square in which the Department was assembled and we were shown lovely pictures of mud-brick houses taken from the Middle East, which were thought to be the ideal, trendy architectural development that we should all aspire to in such an arid environment. Needless to say, that strengthened the resolve of the Department to minimise the possibility of going to Monarto as far as possible. It did mean that for about a year a lot of the Department’s endeavours were oriented towards minimising the likelihood of getting to Monarto. Eventually the whole proposition of Monarto was abandoned. Many of the senior staff all breathed easily. I wasn’t that close to a lot of that but I certainly saw the process. Those

sort of things, if they're unsuccessful, are very resource draining in an organisation and can mean that the organisation can take its eye off the core ball pretty easily.

I was wondering how you felt about it. If Monarto had gone ahead for the Department ...

It was a silly idea. My judgement, as to what my personal view was worth, turned out to be what actually happened.

If the Department had gone to Monarto, would you have gone? Had you thought that far ahead?

We would've argued in our various ways that we had the research facilities at Northfield and they were staying there. It's all you guys in head office that are going to be sent out to Siberia at Monarto. We've already got stock and capital invested here in dairy cows and milking machines and fencing and everything else that we don't need to go anyway. Nobody in their right mind would establish a dairy research centre in the back of the Adelaide Hills at Monarto. Indeed, we had enough of a problem probably justifying why we had one at Northfield which wasn't really typical dairy country either.

The other aspect you mentioned is moving the Department to Northfield. You say that got stopped immediately. Did you try and revive that at any time?

There were some efforts made to try and revive that later. But by that time the Land Commission was in place and evaluations were done of what this 600 acres (243 ha) of land was really worth and it was pretty obvious that it was going to be hard to justify it not eventually finding its way into real estate. We tried to argue here were the lungs of Adelaide, it was nice to have this open space, but local government just saw it as a lot of land that they could be getting rates for if somebody subdivided it (and the government didn't pay any rates). The government saw it as a large space which already there was schools and transport infrastructure around that provided a dead running for buses because nobody lived there and we should overcome all that. It was pretty much a losing battle in trying to defend Northfield. Jim McColl realised that in his time and developed the review of research centres and the relocation and restructuring the research centres portfolio so that our final position was to retain something like 40 ha which would be the research laboratories but scope for a head office if we wanted it. Then the government of the day said, 'You can all go to Roseworthy. We'll have the head office at Roseworthy'. All hell broke loose at that point. By that time I was the Director-General so I advised Kym Mayes, who was then the Minister, that he might have the privilege of coming to Northfield and exposing this piece of advice to the staff, who needless to say were not impressed with the concept. That then led to quite a lot of crossfire and pressure on the government to revise that whole arrangement and subsequently led to the formation of a committee, which I chaired, to look at whether Roseworthy was the place to be or whether in fact we should migrate to the Waite campus. That involved a committee of about 12 people, including the then Director of Roseworthy (Barry Thistlethwaite) and included Jim Quirk (as

the Director of the Waite Institute), people from the Public Service Association, people from the then United Farmers & Stockowners and other interested organisations. The net result was to suggest that it would be much better if we co-located onto the Waite campus. Soon afterwards, I was then asked to join the selection committee for a new Director of the Waite Institute. There were four applicants. We interviewed them and the clear consensus was that Professor Harold Woolhouse was the preferred candidate. In the process of all of that I had occasion to go to Britain for some other reason and spent some time meeting with Harold Woolhouse in his office at the John Innes Institute. We talked a bit about the developments. As the decisions to relocate to the Waite campus moved forward, I was increasingly involved in discussions with Harold about how we might make the most of all of this. It was a change from the original concept, which was to put the Department in a discreet area up the back of the Waite separate from the rest of the university facilities and CSIRO facilities. That was perhaps Jim Quirk's preferred outcome. Jim, by the time he'd retired, had been replaced by Harold who clearly saw the need to integrate it, so that's led to where we are.

Where we are today.

Yes.

In a sense that rounds out some aspects of the story, because were just about out of time on the tape, I'm loath to pick up another subject at the moment John. But it brings us up to a certain point: we say it's where we are today, sitting at the Waite at Urrbrae anyway.

The co-location has been, certainly for the individuals, pretty successful. It's been admired reasonably well with people in Commonwealth agencies and elsewhere. You still have to work to keep it going effectively. There has to be continued commitment via the agencies to that co-location.

We'll perhaps put a pause on for the moment. Thanks for your input today.

You're welcome.

[33:15] **End of tape and end of the sessions**